



**DIGITAL TRANSFORMATION STRATEGIC PROCESSES FOR SMALL AND MEDIUM
ENTERPRISES IN CAPE TOWN, SOUTH AFRICA**

by

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Thesis submitted in fulfilment of the requirements for the degree

Master of Business and Information Administration

in the Faculty of Business and Management Sciences

at the Cape Peninsula University of Technology

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**District Six, Cape Town
December 2022**

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ABSTRACT

The rapid emergence of new digital technologies and the acceleration of digital transformation (DT) caused by Covid-19 require that small, medium and micro enterprises (SMMEs) either modify or develop new business models to exploit digital technologies. DT in itself can become a challenging journey, especially for small enterprises (SEs) with limited resources, low digital maturity levels and the inability to digitally transform. The formulation, adoption and implementation of a DT strategy as an approach can potentially provide SEs with a framework that may assist in successful DT.

The study aimed to answer two primary research questions with two sub-questions each. The primary research questions were formulated as follows:

- 1) What are the business processes required for SEs to digitally transform their business?
- 2) How can SEs efficiently organise, support and enable a DT strategy?

The study aimed to explore the factors that affect the adoption of DT strategies by SEs in the City of Cape Town, South Africa. A multiple case study with a qualitative research method was used for this study on 15 conveniently, non-randomly and purposively selected SEs in Cape Town. An inductive research approach was taken to collect data through semi-structured interviews conducted with business owners and managing directors. The data were decoded using keywords and analysed using a descriptive data analysis method to formulate the findings.

The study adhered to strong ethics to ensure that the integrity and moral principles were followed throughout as required by CPUT. The contribution of the study is the proposed framework for SEs to assist with the formulation, adoption and implementation of a DT strategy that can assist SEs in overcoming the challenges experienced when undergoing a DT. The research found that some of the challenges for SEs to DT are lack of knowledge about DT, lack of financial support and resources, lack of support by industry experts, regulatory and compliance red tape, lack of strategy, and employee resistance to change. The study identified various factors for consideration of a successful DT with business process management, leadership decision making, digital marketing transformation, business process automation, financial aspects, digital technologies and risk management being the main factors. The research results reveal that SEs have a fair understanding of the characteristics, benefits and challenges of DT, but very little to no understanding on what it entails to formulate, adopt and implement a DT strategy. This could result in SEs being i) reactive oppose to proactive to market disruptors, ii) unable to fully explore and exploit digitally technologies to add value to customers and compete in the market, iii) potential closure of enterprise.

Keywords: Digital transformation; digital transformation strategy; small, medium and micro enterprises; digitalisation; digitisation.

ACKNOWLEDGEMENTS

I wish to sincerely thank:

- First and foremost, God, the Almighty, deserving all the honour and praise for protecting and blessing me with good health, knowledge and the opportunity to complete my thesis. **Jeremiah 29:11** *“For I know the plans I have for you declares the Lord, plans to prosper you and not to harm you, plans to give you hope and a future”*.
- My supervisor, Dr Andre De La Harpe, for his support and guidance. Dr De La Harpe unselfishly shared his knowledge (golden nuggets), sacrificed his time, and always provided encouragement throughout the research to see it through until completion. Without Dr De La Harpe’s dedication my thesis would not have been completed.
- The Entrepreneurs, thank you for accepting the invitation to participate in my research study. Amid the Covid-19 pandemic when the world was in chaos and many small enterprises were going into survival mode, you found time in your busy schedules to share your knowledge with me.
- Finally, thank you to my wife Farahnaaz, my children Ghaziyah, Riley and Ashley, my parents, siblings, and friend Mercia Abrahams for their love, patience, support and encouragement throughout this study.

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ABBREVIATIONS AND ACRONYMS

Abbreviation	Explanation
BPA	Business Process Automation
BPM	Business Process Management
Capex	Capital Expenses
CMS	Content Management System
CRM	Client Relationship Management
DM	Digital Marketing
DOI	Diffusion of Innovation Theory
DT	Digital Transformation
DT strategy	Digital Transformation Strategy
I 4.0	Industry 4.0
ICT	Information & Communication Technology
MSME	Micro, Small and Medium Enterprises
Opex	Operational Expenses
PWC	PriceWaterhouseCoopers
SaaS	Software as a Service
SE	Small Enterprises
SEDA	South African Enterprise Development Agency
SEO	Search Engine Optimisation
SME	Small and Medium Enterprises
SMME	Small, Medium and Micro Enterprises
TCT	Transaction Cost Theory
TOE	Technology, Organisation and Environment Theory

CHAPTER 1: INTRODUCTION

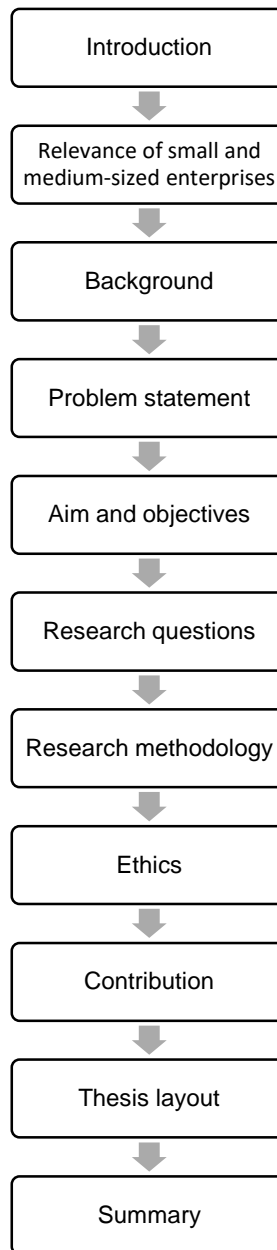


Figure 1.1: Layout of Chapter 1

1.1 Introduction

The ability to formulate, adopt and implement a Digital Transformation strategy (DT strategy) to digitally transform is more important now than ever (Bolland, 2017:3) as small, medium and micro enterprises (SMMEs) are finding themselves in an unfortunate but historical period amid a global pandemic (Pratama et al., 2021). The pandemic impacted on many SMMEs around the world who were rigid and unprepared to digitally adapt to the new norm caused by it (The International Trade Centre, 2020). The pandemic resulted in SMMEs finding themselves having to re-engineer their business models and strategies, especially since many companies

were forced by the pandemic to work from home and rely on technology to keep their business going. This questioned their digital maturity and ability to adapt to digitally transforming their business (Guderian et al., 2021). SMMEs with low resilience during the hard lockdown periods had to temporarily or permanently close doors whilst others found themselves reactively scrambling to surf the wave of DT escalation (George et al., 2020). The Small Business Institute (SBI, 2021) however argues that SMMEs, especially those in South Africa, were experiencing obstacles before the pandemic and the pandemic were just the nail in the coffin for many of them. The Organisation for Economic Co-operation and Development (OECD, 2021:1), furthermore believes that “digitalised SMMEs will be key to build back a better economy and society” after the crisis, but the challenge faced by SMMEs are that they are underprepared to digitally transform at such short notice.

1.2 Relevance of small and medium-sized enterprises

SMMEs are considered the lifeblood of many economies globally. In South Africa, an emerging economy, it is no different with 2.55 million SMMEs (SEDA, 2019). SMMEs are the key drivers of our economy and account for 68% of all jobs in South Africa (SEDA, 2021:17). South Africa’s SMMEs transect throughout all industries, from “automotive to agriculture and is made up of the formal sector (employees, other people), informal sector (own-account workers), agriculture and private households” (SEDA, 2019:16). The South African government acknowledged the importance of SMMEs through the creation of the “Ministry of New Business Development in 2014” (Adelowotan, 2021:39). According to SEDA (2018), the Ministry has the directive to facilitate the advancement and growth of small businesses in South Africa.

The Department of Small Business Development (2020:1) provided the following strategies for the development and sustainability of SMMEs during the Covid pandemic:

- a) Business growth and resilience facility
- b) SMME Relief Finance Scheme and Small Enterprise Finance Agency (SEFA) debt restructuring facility
- c) Automotive Aftermarkets Support Scheme
- d) Small Scale Bakeries and Confectioneries Business Support Scheme
- e) Small Scale and Micro Clothing, Textile and Leather Business Support
- f) Scheme: Spaza Shop Support Programme

South Africa’s National Development Plan (NDP) of 2030 recognises SMMEs as a key driver in the economy because of their ability to provide job opportunities and drive economic development (Adelowotan, 2021; SITA, 2021). In the SMME Landscape Report (SEDA, 2018), an assessment on the survival of SMMEs in South Africa highlighted that most SMMEs do not survive beyond five years. Adelowotan (2021:39) further states that the purpose of the assessment is to determine the situation of South Africa’s SMMEs with the focus on

“opportunities, risks and challenges”. The SME Landscape Report (SEDA, 2018:9) identified the following “opportunities, risks and challenges”:

- a) Limited access to a highly competitive market
- b) Opportunity to grow and compete in different sectors
- c) Restrictive government regulation for SMEs
- d) Adherence to labour law regulations hindering business growth
- e) Lack of financial support from government
- f) Lack of development support from government
- g) Limited access to technology (including unstable Internet connectivity)
- h) Underprepared for market disruptors

The department of small business development (2022: 6) 2022/23 Annual Performance Plan outlines the following imperative policies and initiatives for SMMEs as a vision for growth and sustainability:

- a) Localisation – “SMMEs-focused localisation policy framework which aims at increasing and accelerating the participation of SMMEs and Co-operatives in producing goods locally, especially those manufacturing SMMEs and Co-operatives that are based in townships and rural areas”.
- b) SMMEs and Co-operatives Funding Policy – “seeks to expand access to financial support by new and existing SMMEs and Co-operatives in the underserved areas such as townships and rural areas and promote broader participation of small”.
- c) Township and rural enterprise programme – “The programme is dedicated to transform and integrate opportunities in townships and rural areas into productive business ventures”.
- d) SMME business infrastructure support – “The programme is aimed at providing SMMEs, including Co- operatives, with affordable and safe areas to produce, market and sell their goods and services, and to create business hubs for the surrounding primary producers in the area in order to stimulate economic activity in the districts”.
- e) Incubation and Digital Hubs – “These incubation centres are viewed as a vehicle for promoting economic development, innovativeness, and the emergence of technology-based start-up companies”.
- f) Masterplans – “The National Integrated Small Enterprise Development (NISED) Masterplan represents a national strategy to coordinate government’s efforts in partnership with private sector actors by building a supportive ecosystem for SMMEs to thrive and grow businesses in the mainstream economy”.

The policies and strategies developed by the department of small business development are further guided and supported by its “multi-lateral and international commitments to the United

Nations (UN), African Union (AU), and other multi-lateral organisations” as well as the initiatives and strategies developed by these organisations such as i) The United Nations Sustainable Development Goals (SDG), ii) The African Union Africa 2063 Agenda and iii) African Continental Free Trade Area Agreement (Department: Small Business Development Republic of South Africa, 2022: 15).

The terms “SMME” and “small and medium enterprise” (SME) can be used interchangeably and lead to the same concept in South Africa (Le Fleur et al., 2014:6; Sitharam & Hoque, 2016:277). The National Small Business Act 102 of 1996 (South African Government, 1996:3) defines small businesses as “a separate and distinct business entity, including co-operative enterprises and non-governmental organisations, managed by one owner or more, which includes its branches or subsidiaries”. This means that the classification on the term *small enterprise (SE)* is made up of three groups, namely “medium enterprises, small enterprises and micro-enterprises” (South Africa, 2018:96). The decision on which terminology to use is dependent on who is defining it and in which country it is being used (Bushe, 2019). Western areas use the more popular terminology *SME* for small enterprises, whilst in the Africa region, the terminology *micro, small and medium enterprise (MSME)* is more popular (Baporikar, 2014). In South Africa, *SMME* is the term in use as defined in the National Small Business Act (South African Government, 1996:2), the Department of Trade and Industry (DTI, 2008), and Small Enterprise Development Agency (SEDA, 2018). Although *SMME* is the common term used in South Africa referring to the small businesses sector, there is a clear distinction between micro, small and medium enterprises.

Table 1.1 provides a breakdown of SMMEs in South Africa.

Table 1.1: Definitions of SMME in South Africa (South Africa, 2018:98)

Enterprise size	Total annual turnover (SA Rand)	Total full-time equivalent of paid employees
Medium	Less than R35 million to R220 million	51 to 250 full-time employees
Small	Less than R15 million to R80 million	11 to 50 full-time employees
Micro	Less than R5 million to R20 million	1 to 10 full-time employees

For the remainder of the thesis, the term *small enterprise (SE)* is used instead of SMMEs. Only SEs involved in digital marketing (DM) were part of the study (Chapter 4, section 4.4.3; Table 4.2).

DT has an impact on all sectors of society, and in particular the economies of developing countries (Manda & Dhaou, 2019). The urgency to accelerate DT is also evident in the African Union’s 10-year DT strategy for Africa adopted in 2020 to enhanced existing frameworks and

initiatives such as the African continental free trade agreement, free movement of persons and the digital single market for Africa (African Union, 2020). Gong and Ribiere (2021:10) define DT as “a fundamental change to a process utilizing digital technologies that result in an improvement to all stakeholders so dramatic that demand for the new way of working or thinking, such as new digital platforms, new methods, new cultures, new strategies, and new structures”. Reis et al. (2018:417) further state that “DT goes beyond merely digitising resources and results in value and revenues being created from digital assets”. Manda and Dhaou (2019) argue that embracing DT is very important, as not embracing the transformation may result in losing ground in the market.

DT is essential for organisational growth (Abolhassan, 2017) and technology opens up access to new markets and target market groups for SEs (Fortmann et al. 2019). DT creates new opportunities for businesses through the DT of their “business model” (Schallmo et al., 2017:2). The ambiguity and high-speed change of technologies are creating constant competition in the market. This makes it important for SEs to comprehend their abilities both inside and outside the environments (Škudienė et al., 2020). These rapid technological developments are creating digital disruptions in the markets and are posing a high threat to SEs (Alkhamery et al., 2020). Being able to navigate through the DT process is important to thrive or to profit from (Schiuma, Schettini & Santarsiero, 2021; Schiuma, Schettini, Santarsiero, et al., 2021; Karimi & Walter, 2015; Matt et al., 2015).

According to Barthel and Hess (2019), DT disrupts SEs across all sectors, compelling them to become more innovative and fine-tune their business models. A business that cannot innovate at a similar pace to the external changes will be disrupted by the business that rapidly responds to the external changes (Aguiar, 2020). This was witnessed through big companies such as Nokia and Kodak who were unsuccessful in keeping up with the speed of changes even though they were the market leaders (Abolhassan, 2017). In SEs, incremental innovation refers to improving or revising the existing features of a product or service. This is for their products and services to have a competitive and relevant advantage in market over those of their larger competitors (Indrawati, Caska & Suarman, 2020). It is thus important that product or service designed by SEs is aligned with the need of the specific client segment they are targeting (Fitriasari, 2020). To assist SEs with “continuous, incremental improvement in service delivery that promotes efficiency and effectiveness” the South African government introduced a service delivery improvement programme as part of their 2020-2025 strategic plan (Department: Small Business Development Republic of South Africa, 2020).

Globally, many organisations have started becoming pioneers for DT and this can be seen through the formulation and implementation of their DT strategies (Chantias, 2017). DT strategies with technology concentrate on transforming the company as a whole with all its

resources and processes (Matt et al., 2015). DT strategies improves “operational performance” (Matt et al., 2016:2). DT can be a challenge for many individuals because of the rapid speed at which technology transforms and the way organisations conduct business (Henriette et al., 2016). It is worth mentioning that DT is not an entirely new concept; its roots can be found in digitisation, which transforms analogue data and processes it into digital modifications (Henriette et al., 2015), and with digitalisation, which is the process of adopting digital technologies (Legner et al., 2017).

Kane et al. (2015) argue that DT is led through an effective strategy and not technology. According to Ismail et al. (2017), a DT strategy is an important factor to successful DT. According to Invonto (2019), a well-defined strategy that offers a clear outline or blueprint that is executed accurately can be advantageous to any SE undergoing a DT. Jeremy (2020), however, states that the successful execution of a DT strategy is neither straightforward nor easy. Newman (2015) argues that whilst DT for SEs may not be a huge activity in comparison to larger organisations, the transformation process is still very important.

The inevitable outcome of digital innovations is to enable organisational change through digital technologies and digital business models which set the path of DT for organisations (Bican & Brem, 2020). The next section discusses the background of the research problem for this study.

1.3 Background to the research problem

The literature on research conducted in South Africa suggest that the country is underprepared for the fourth industrial revolution (I 4.0) (Andrade & Gonçalo, 2021; Makwara, 2019; Maasz & Darwish, 2018; Mukwawaya et al., 2018). According to Agility (2022:30), South Africa ranks 21st out of 50 emerging market countries for digital readiness with a score of 5.1 out of 10. Whilst it is believed that I 4.0 has the potential to lift South Africa out of the challenges of “poverty, unemployment and inequitable distribution of wealth”, concerns are that the country may not be able to take full advantage of the revolution due to its weak economy (Olaitan et al., 2021:2). This is especially challenging for SEs that find it difficult to adapt to new technology changes (Curraj, 2018). The Covid-19 pandemic through hard lockdowns further exposed the digital unpreparedness in enterprises, which required them to accelerate their DT in order to survive (Soto-Acosta, 2020).

The South African Enterprise Development Agency (SEDA, 2019), reports that 26% of SMMEs in South Africa do not survive more than two years from the date established. Kalidas et al. (2020:7) report that as a direct result of the Covid-19 pandemic, “70% of South Africa’s SEs have reduced business spending already and despite government efforts, the largest area is employee layoffs”. Maisiri and van Dyk (2019) link this to various factors, including unskilled

labour and a lack of censorious skills. Gürsel (2020) explains that this can be attributed to SEs not having the ability to always follow up on new technology trends as they have smaller financial turnovers. Briter Bridges (2021:7) states that 62% of all technology funding in Africa is allocated to start-up financial technology companies, with other sectors such as health, logistics, education, cleantech, agriculture and e-commerce receiving the other 38%. Agility (2022:31) identified the “adoption of technology as the leading driver of economic and business growth for emerging markets”.

Yeow et al. (2019) state that SEs can take advantage of DT due to their agility and flexibility to adapt to change. This is, however, only possible if there is alignment between their “business strategy” and “digital technology” (Li et al., 2016:185). Khoase and Govender (2013) report that the SEs remains a vital role player for economic growth and mitigating poverty. Laurentiu (2016) further explains that it is well-known that SEs are common in tackling the fears of joblessness and growing economies. Research studies have highlighted that the survival of SEs is non-existent without strategic planning and strategic developments (Antony et al., 2016). It is therefore imperative that SEs in South Africa formulate, adopt and implement a DT strategy to survive or sustain the new norm in the ever-changing economy.

1.4 Statement of the research problem

SEs forms the backbone of most economies (Curraj, 2018; North et al., 2018; Gopaul, 2019; Jayashree et al., 2019; Rassool & Dissanayake, 2019; Matt et al., 2020) and “it is not easy for SEs to transform according to Industry 4.0 (I 4.0)”. There is a clear need to prepare for and adopt a digital future, but many companies struggle with the question, “How do we transform?” (Barthel & Hess, 2019:1). Whilst the urgency of reacting to DT seems clear, many SEs do not know how to deal with the disruption caused by it (Kohli & Melville, 2019; Gimpel et al., 2018). Ulas (2019) explains that some of the obstacles in adopting DT in SEs are the lack of understanding of DT, the processes needed to implement DT, connectivity problems, and the lack of qualified employees. DT, through the use of digital technologies, enables or activates major business change (Singh & Hess, 2017). DT presents new opportunities and challenges for SEs; however, not all SEs can capitalise on the opportunities presented by DT (Matt et al., 2020). This is because most SEs use “informal” DT strategies to adopt DT as a responsive measure instead of being strategic and forward-thinking (Karlton, 2017:19).

According to Pelletier and Cloutier (2019), SEs often do not achieve the desired results, because the benefits of technology were not easily recognisable by “entrepreneurs and managers”. Kane et al. (2015:3), however, argue that DT is fundamentally “not about technology but strategy”, and although DT may require upgrading the information technology infrastructure, more important advancements are needed in strategic thinking (Ghosh et al., 2018). The academic literature does not provide a clear detailed outline for businesses on how

to “formulate”, “implement” and “evaluate” a DT strategy (Mitroulis & Kitsios, 2019b:1; Korachi & Bounabat, 2019a:242). This means that the subject of how to develop a DT strategy remains an “open question” (Chaniyas et al., 2019:17). Chaniyas et al. (2019) state that the process to design and execute a DT strategy remains a major concern for businesses as the literature around DT strategies is still in its early stages (Mitroulis & Kitsios, 2019a; Trenkle, 2019; Colli et al., 2020). Literature, therefore, shows that for SEs to succeed in the ever-changing market, they need to adopt a DT strategy (Alkhamery et al., 2020). DT strategies have therefore become a high priority for most businesses today (Sebastian et al., 2017).

SEs find it challenging to adapt their business processes to accommodate a DT strategy. Unfortunately, little is known about factors involved when SEs want to adopt and implement a DT strategy to digitally transform. It is unclear what factors affect the adoption of DT strategies by SEs.

1.5 Aim and objectives

The study aimed to explore factors that affect the adoption of DT strategies by SEs. The objectives were formulated as follows:

- a) To determine the reasons why SEs adopt or not adopt DT
- b) To determine the challenges SEs face to digitally transform
- c) To Determine the factors of a DT strategy that may assist SEs with implementing DT in the organisation

1.6 Research questions (RQs) and research sub-questions (RSQs)

Research questions require specific data collection techniques to appropriately explore and understand the phenomena of interest (Fry et al., 2017). Two research questions (RQs) and two research sub-questions (RSQs) for each main question, stated in Table 1.2, were posed to find answers to the problem under investigation.

Table 1.2: The research questions, objectives and methodologies used in answering the questions

RQ1: What are the business processes required for SEs to digitally transform their business?		
RSQs	Objective	Methodology
RSQ 1.1: What are the benefits and characteristics of DT?	To determine the awareness, characteristics and benefits for SEs to digitally transform.	Interview; semi-structured questionnaire
RSQ 1.2: What are the business challenges for SEs to digitally transform?	To determine the challenges for SEs to digitally transform.	Interview; semi-structured questionnaire

RQ2: How can SEs efficiently organise, support and enable a DT strategy?		
RSQs	Objective	Methodology
RSQ 2.1: What are the factors influencing the formulation, adoption and implementation of a DT strategy?	To determine the influences that will lead to the decision to implement a DT strategy.	Interview; semi-structured questionnaire
RSQ 2.2: What are the digital opportunities for SEs to adopt and implement a DT strategy?	To determine the opportunities for adopting and implementing a DT strategy.	Interview; semi-structured questionnaire

*RQ = research question, RSQ = research sub-question

1.7 Research design

Research design is a way to systematically solve the research problem. It may be understood as a science of studying how research is done scientifically (Kothari, 2004). Social science uses different research methodologies, which can generally be sub-divided into quantitative and qualitative research methodology (Tuli, 2010).

1.7.1 Research philosophy

The key focus of philosophy is not so much on finding a solution to the pertinent questions asked during research as it is on the logical reasoning used to answer the questions instead of accepting traditional views and authority (Buckingham et al., 2011). Saunders et al. (2016:136; 2019:145) present five major philosophies, namely:

- a) Positivism—only works with visible real data that do not have any human influence in the findings.
- b) Critical realism—focuses on what can be seen and experienced and endeavours to make sense of it by explaining the observable event.
- c) Interpretivism—focuses on the human viewpoint and the interpretation of that human viewpoint.
- d) Postmodernism—focuses on challenging the realities, concepts and theories of information that are normally silenced or left out from those whose interest it serves. Postmodernism is therefore known as challenging the views of interpretivism and objectivism.
- e) Pragmatism—focuses on the reality that can lead to solutions. It serves as mediator to reconcile the facts of objectivism and values of subjectivism so that a solution can be found and used for now and in the future.

For the purpose of this research study, an interpretivist stance was followed in an attempt to explain the subjectivist stance based on the viewpoint of the particular individual who is part of the social world. Consent was obtained in writing from the companies as well as the research participants.

1.7.2 Research approach

For a research approach, data can be categorised into three categories, namely: inductive approach, deductive approach, and abductive or retroduction approach (Robson & McCartan, 2016). Mantere and Ketokivi (2013:4) state that inductive, deductive and abductive reasoning are used to “construct explanations and interpretations”, “make generalisations”, “argue for a case”, and “draw a conclusion on the matter of importance”.

Creswell and Creswell (2018:101) explain the three research approach categories as follows:

- a) Inductive approach—this is an ascending approach with an emic view. The data are collected through the participants (Ps) and analysed to develop appropriate themes. This approach is favourable with a qualitative research study.
- b) Deductive approach—this is a descending approach with an etic view. The approach starts with a clear theory that looks for variables in the data, which are then used to form a hypothesis. This approach is favourable with a quantitative research study.
- c) Abductive or retroduction approach—the inductive and deductive approaches are combined to provide additional insights where the inductive approach or deductive approach alone is not sufficient. This approach is favourable for a mixed-methods study.

For this qualitative research study an inductive approach was used to collect the data from the Ps, to analyse the data, and to develop themes accordingly.

1.7.3 Research methodology

The research methodology can be described as the blueprint that guides the flow of direction of the research (Akorsu & Enu-kwesi, 2016). According to Almalki (2016:290), there are three research methodologies, namely:

- a) Qualitative research, which focuses more on exploring and understanding the human perspective and their part in the social world through an inductive approach.
- b) Quantitative research, which focuses on the facts provided by the data without any human influence.
- c) Mixed-methods research, which focuses on combining both the qualitative and quantitative methods to provide a deeper insight into the research questions, where qualitative or quantitative results need more elaboration.

The research strategy selected by the researcher is done on the basis of how best it can answer the research questions (Leavy, 2017). Saunders et al. (2016:178) state that the qualitative and quantitative research strategies both contain strategies such as “experiment, survey, archival and documentary research, case study, ethnography, action research, grounded theory and narrative inquiry” that researchers use to assist in answering the research

questions. Based on the nature of this research study, a multiple case study strategy as described in Chapter 3 (section 3.4.1.2) was adopted to explore the factors influencing the decision in SEs to formulate, adopt and implement a DT strategy.

1.7.4 Sampling

Due to time and budget constraints, researchers use the sampling technique of their targeted population for their research. This sampling technique is broadly classified as probability and non-probability sampling (Acharya et al., 2013). A population is “a targeted group or audience on who the research study will be conducted” (Majid, 2018:3). The population consists of the unit of analysis and the unit of observation (Kumar, 2018).

According to Taherdoost (2016), the sampling technique process can be divided into six stages:

- a) Stage 1: Clearly define the target population, which can be the number of citizens living in a particular country or number of employees in an organisation or number of students in a school or university.
- b) Stage 2: Select the sampling frame, which is a list of actual cases identified from the represented population.
- c) Stage 3: Choose a sampling technique, which can be either probability sampling, which means every item in the identified population has an equal opportunity to be included in the sample, or non-probability sampling, which means the representative can be randomly selected.
- d) Stage 4: Determine the sample size—the researcher selects an adequate sample size depending on the complexity of the population.
- e) Stage 5: Collect data from the identified sample population.
- f) Stage 6: Assess the response rate by comparing the number of respondents who agreed to participate in the research study; thus, assist with the prevention of sample bias.

The sample for this research study was SEs in the digital market (DM) sector. Fifteen SEs in the DM sector were selected for this study based on the following reasons:

- a) The impact of the Covid-19 pandemic resulted in most traditional SEs going into survival mode to keep their business open, and participating in research was not a high priority for them.
- b) DM agencies were the only sector willing to participate in the research because of their understanding and interest in digital technologies and their ability to navigate around the pandemic (it had an opposite effect on them as their business was growing).

For the research, the researcher conveniently, non-randomly and purposively selected 15 SEs in the DM sector in Cape Town. Where applicable and needed, snowball sampling was also applied. The population was restricted to SEs situated the Cape Town. The study aimed to explore factors that affect the adoption of DT strategies by SEs.

1.7.5 Unit of analysis

Identifying the unit of analysis can become complex, which it why it is more important to be able to identify instead of classify what the unit of analysis is about (Kumar, 2018). Babbie (2021:121) defines the unit of analysis as “the people or things such as a person, a social artefact, a social group or a formal organisation whose characteristics and lifestyles will be observed by researchers”.

The unit of analysis was identified as the DT strategies and processes used by the DM sector (Chapter 3, section 3.5.4).

1.7.6 Unit of observation

The unit of observation may be seen as units that are directly investigated, such as a person or a social group, and in some cases may be the exact objects as identified in the unit of analysis (Grønmo, 2019). According to Lavrakas (2008:928), a unit of observation can be defined as an “object about which information is collected”.

One representative of each of the 15 SEs was selected to conduct an interview with. The unit of observation was the 15 entrepreneurs/ managers/ subject experts at the DM companies.

1.8 Data collection

At the heart of any research design is the collection of data (Parveen & Showkat, 2017). According to Bairagi and Munot (2019:131), data collection is “how information is collected, measured in a systematic manner that enables the reader to answer the research questions”. Data collection can be done through primary data collection, which is new data collected for the first time, while secondary data are collected, processed and analysed by someone else (Hox & Boeije, 2004).

Yin (2016:62) provides the following data collection methods for qualitative research studies: “Interviewing, observation, collecting and examining of documents and materials and feeling of sensation”. The data collection instrument for this research was a semi-structured questionnaire using an interview guide (Appendix B) that contains open-ended questions on DT and the business processes for implementing a DT strategy. The interviews were used to collect the primary data in this qualitative study.

1.9 Data analysis

A researcher's data analysis is “an important step in the research process where he or she attempts to validate the accuracy of the results obtained from the sample taken from the population” (Bajpai, 2011:7). According to Hair et al. (2020), quantitative analysis can either be done through a descriptive approach to better understand the data or through the usage of statistics to test a hypothesis. Qualitative data analysis is however inductive in nature to identify, examine, compare and interpret patterns and themes (Costa et al., 2016).

The data analysis methods are directly determined by the research method. In this study, a qualitative data analysis method was used to explore the phenomenon anticipated by the research question. Content data analysis aided by thematic analysis techniques was used. Interviews were transcribed, and keywords were determined (coded) and categorised accordingly. From the categorisation, thematic analysis was applied, linking the themes to the research questions.

1.9.1 Ethical considerations

The current study meets the terms as stipulated in the CPUT research ethics policy. The compliance certificate had to be issued by the university's Ethics Committee before the researcher was allowed to commence with the research. The Ps had to accept participation in the research by signing the consent letter, and each P was assured about their confidentiality and the right to withdraw from the research if needed to do so. Data and all the information shared by the Ps had to be kept confidential and protected all the time. Ps could withdraw from the research at any stage.

1.10 Contribution of research

This study focused on DT by examining the drivers and challenges of DT as experienced by SEs who have or who are considering embarking on a DT journey. The study further explored the importance of a strategy and the challenges experienced by SEs with the formulation, adoption and implementation of a DT strategy framework that assists SEs to digitally transform successfully.

The research contributes both practically and theoretically to the current body of scientific knowledge as it sought to provide insight into how to formulate, adopt and implement a DT strategy in SEs by examining various frameworks. The study furthermore provides guidelines that may assist in facilitating strategic decision-making related to DT for both digital and traditional SEs. This provides future researchers with perspective on related studies on DT; it also provides SEs with the opportunity to understand the drivers and challenges of DT and the know-how to formulate, adopt, and implement a DT strategy.

1.11 Thesis layout

The layout of the thesis is presented as follows:

Chapter 1: An introduction of the study and background to the research problem is presented. The statement of the research problem, as well as the aim and objectives of the research, is discussed. A figure depicting the chapter layout is presented.

Chapter 2: A review of the literature pertaining to the study is provided. Concept definitions, challenges and drivers as applied to DT as well as the importance of a strategy and the formulation of a DT strategy are discussed. The chapter ends with a summary of the literature review.

Chapter 3: This chapter covers the design and methodology applied to the research. The chapter starts with a discussion of the underpinning theories for the research, followed by a brief layout of the philosophical stances informing the study. The methodology, data collection and data analysis are covered. The chapter ends with a discussion of research ethics considerations as applied to the study.

Chapter 4: The research results and findings are presented in detail.

Chapter 5: In this chapter, the findings of the study are discussed and a mapping of these findings with the existing literature is done.

Chapter 6: A conclusion of the research is presented, accompanied by a set of recommendations and suggestions for further studies. In the next chapter, a review of the existing literature on DT, DT strategy, and the formulation of a DT strategy are presented.

1.12 Summary

DT strategies provide enterprises with a holistic approach to digitally transform successfully. Previous studies of DT strategies however did not focus so much on SEs to guide them on how to successfully formulate, adopt and implement a DT strategy. SEs are realising that DT is a key factor towards the success of a business, but many do not have the skills, resources and processes to utilise technology in order to re-engineer their business model and remain competitive in the market and to continue creating value for their customers. SEs find it challenging to adopt and accommodate a DT strategy and instead opt for incremental technology implementation as an attempt to respond to market threats. The aim of the study was to explore the factors affecting the adoption of a DT strategy in SEs. The objectives were to: i) determine the reasons why SEs adopt or not adopt DT; ii) determine the challenges SEs face to DT; iii) determine the challenges of DT strategies that may assist SEs with implementing DT in the organisation.

To assist with answering the research questions and address the research problem, a qualitative research study was conducted on 15 conveniently, non-randomly and purposively selected SEs in Cape Town within the DM field. An objectivist viewpoint with an inductive approach was taken to explore and collect data through face-to-face semi-structured interviews. The data collected were analysed using an inductive analysis method. The research study contributes to the body of knowledge by providing SEs with a framework that serves as a roadmap on how to formulate, adopt and implement a DT strategy to digitally transform successfully.

CHAPTER 2: LITERATURE REVIEW

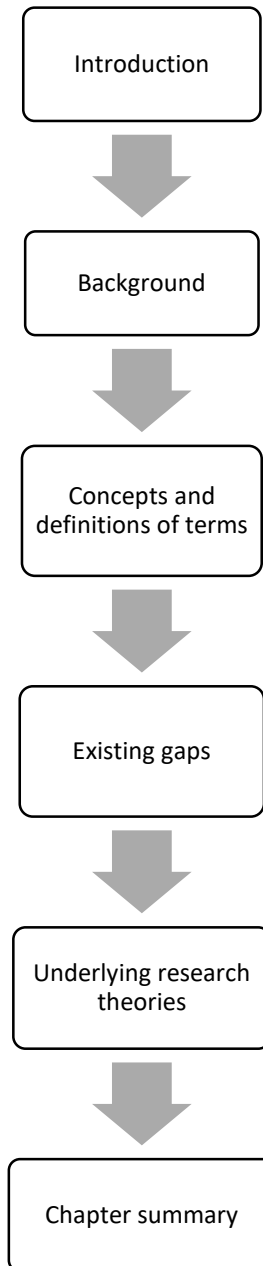


Figure 2.1: Layout of Chapter 2

2.1 Introduction

The successful implementation of DT requires that SEs have a full understanding of the challenges and drivers of DT, a well-defined DT strategy with a vision and objectives to formulate, adopt and implement the DT strategy, and skills and capability to successfully lead the DT. This chapter provides an overview of DT and the DT strategy, the challenges and drivers of DT, and a framework as a guide on how to formulate, adopt and implement a DT strategy.

The literature was investigated using CPUT library databases such as JSTOR, Scopus, Google Scholar, Elsevier, Science Direct and ProQuest. Keywords that were identified from the title, problem statement and research questions were used as a guide to investigating the literature. Additional keywords were identified from the literature and an iterative process was followed.

The literature review is structured as follows: i) background of DT; ii) concepts and definitions of terms; iii) technology transformation; iv) transformation through value creation; v) transformation of structural changes; vi) financial aspect transformation; vii) definition and understanding of DT; viii) challenges of DT; ix) drivers of DT; x) importance of a strategy; xi) DT strategy; xii) framework of DT strategy; xiii) DT strategy formulation through vision and objective; xiv) assessing DT adaptability of the organisation; xv) developing employee and customer experience; xvi) reviewing and selecting solutions and vendors; xvii) creating and implementing a roadmap for DT strategy; xviii) Fine-tuning organisational culture and infrastructure; xix) existing gaps; and xx) underlying research theories.

2.2 Background of DT

Digital technology over the past years has become a key driver for economies, governments, companies and people as it transformed our view and apprehended the world (Bouwman et al., 2019; Sweet & Daugherty, 2021). The perpetual change of the new norm is here to stay and organisations big and small have to adapt to it.

Globally, the sectors with the most business closures are “travel or tourism agencies (54% closed), hospitality and event services (47%), education and child care services (45%), performing arts and entertainment (36%), and hotels, cafes and restaurants (32%)” (Goldstein et al., 2020:4). In South Africa, the number of SEs declined by 11% overall in the sectors except for agriculture which saw an increase during the pandemic (SEDA, 2021). South Africa’s businesses consist of more than 98% of SEs and employ between 50% and 60% of the country’s workforce across all sectors (Kalidas et al., 2020).

Kalidas et al. (2020) further stated that 52% of SEs are thinking about closing down sections of their enterprise as a size reduction caused by the Covid-19 crisis. This means that SEs have now come to realise the importance of technologies in their organisations to remain competitive and to survive in the market (Ottesjö et al., 2020). Organisations operating across the various sectors will have to gravitate toward digitally transform their business to remain competitive and relevant in the market (Morakanyane et al., 2020). Whilst there are free technology tools that SEs can take advantage of to assist them, there is still no proof as to what extent it will assist them before requiring a premium package purchase (Martinez, 2018).

According to Nwaiwu et al. (2020), SEs encounter various challenges transitioning from their current process models to more efficient models that are categorised under I 4.0. This has an impact on SEs. Even though there is enthusiasm to embrace technology, not all SEs can steer through the process (Nwaiwu et al., 2020). Haddad et al. (2020) consider it important to investigate the reasons behind the success and failure of enterprises to improve their chances of success. The Organisation for Economic Co-ordination Development (OECD, 2017:7) identified some obstacles to the effective use of digital technologies, which include: i) lack of high-quality and affordable infrastructure; ii) lack of trust in digital technologies and activities; iii) shortage of the skills needed to succeed in the digital economy; iv) a more reactive than proactive approach to the openness of the Internet; v) services trade barriers; vi) high costs and poor access to financing for smaller firms; vii) barriers to the reallocation of resources across firms and sectors; and viii) lack of interoperability of standards. Twinomurinzi et al. (2019) emphasise the important of SEs in South Africa using technology to educate themselves on DT, as this will enable SEs to learn how to embrace technology and to become an advanced organisation (Chonsawat & Sopadang, 2019).

Many SEs incorporate digital technologies into their daily business operations, but it still does not mean that have started the DT process. Saldanha (2019:36) addresses the difference between “doing” digital and “becoming” digital by explaining that the “goal of “becoming” digital is key to achieving perpetual DT and “do” digital as a one-time transformation, but to achieve ongoing market leadership enterprises needs to “become” digital. Saldanha (2019:36) further explains that the organisation has reached the “become” stage when digital is the “living DNA” of its operation”. Morakanyane et al. (2020:4356) define DT as an evolutionary process that leverages “digital technologies and capabilities to enable business models, operational processes and customer experiences to create value”.

DT is a big journey split into small attainable goals, which could make it easier for SEs to achieve DT (Parviainen et al., 2017). However, to achieve these incremental milestones, SEs require a strategic focus through a blueprint, a roadmap or a framework on how to digitally transform their business (Yuleva-Chuc & Filipova, 2021). Some SEs do incorporate digital technologies as a survival tactic, which has become evident amid the pandemic (Ghobakhloo & Iranmanesh, 2021). It is not irregular for SEs to go this route because it is in their nature to be very agile, flexible and informal when it comes to their daily operations (Burchardt & Maisch, 2019). Informal strategies are however considered to be a very reactive approach to disruptors entering the market or to remain competitive (Boneva, 2018).

2.3 Concepts and definitions of terms

Since the arrival of the tenure of DT in the “1970s”, the concept has undertaken various interpretations by researchers and industry experts (Capușneănu et al., 2021:2). DT has

become a catchphrase of late in the academic and organisational world with nearly every sector transforming parts or their entire business during I 4.0 (Verina & Titko, 2019; Jayashree et al., 2019). Saldanha (2019) claims that thriving in the fourth industrial revolution will not be an easy road, but it is achievable. Working through the dynamics of DT can become intimidating for many leaders, especially on how to formulate a DT strategy subsequent to starting the DT journey (Mhlungu et al., 2019). Erbek (2020) argues that DT is not only a technological development despite it being a key factor and that there are other factors such as customer expectations and employee inclusion that are influencing DT. This is why DT is a “top strategic priority” in most organisations lately (Ghosh et al., 2018:1).

Prior to researching DT strategic processes, adoption and assessment in SEs, it is important to briefly discuss the definitions of DT strategies and identify what the DT strategic process concept entails. The concepts and definitions discussed in this section are: i) technology transformation; ii) transformation through value creation; iii) transformation of structural changes; and iv) financial aspect transformation.

DT is based on the concepts of organisational change, digitalisation and value creation (Trenkle, 2020; Hanelt et al., 2020; Andersen, 2019; Trenkle, 2019; Rogers, 2016; Westerman et al., 2014b). Organisational change, through structural change, digital technological change, value creation and financial aspects, enable DT (Skog, 2019). The digital technologies in themselves are also a force of change, as they have become a crucial part of society and our daily life (Karlton, 2017; Demirbas et al., 2018). This is because various new technologies are entering the market requiring flexibility, agility and innovative ways to connect with customers through technology (Ryan et al., 2020). According to Riasanow et al. (2018), Vollman’s transformational model for organisational change is grouped into categories by: i) culture; ii) configuration; iii) coordination; iv) people; v) information; and vi) technology. SEs need to use the ability of new technology to create organisational change to adapt to the changing customer needs and create an exceptional customer experience which should be guided by the DT process as a “customer-oriented digital strategy” (Wajeetongratana, 2020:122). Information technology strategies thus map out how IT will function within the organisation (Zimmer, 2019). Organisational changes have become compulsory to gather and use the data analytics required to support the strategic plan to innovatively plan and accurately reflect the customer’s needs (Mubako & Ray, 2020).

Digitalisation, on the other hand, transforms how information is exchanged between people and the organisation, which ultimately develops a digital acceptance culture that plays a part in the execution of DT processes (Chernyavskaya et al., 2021). Digitalisation can be defined as “the ability to turn existing products or services into digital variants, and thus offer advantages over tangible product” (Parviainen et al., 2017:64). With the arrival of the age of

digitalisation, digital technologies such as social media and the Internet of Things, analytics and artificial intelligence (AI) have been intensively used in contemporary businesses (Li et al., 2021; Cirillo et al., 2020). Trushkina et al. (2020) state that the key objective of digitalisation is to capitalise on the usage of technology to increase efficiency and effectiveness. Trushkina et al. (2020) further posit that the organisation's viewpoint needs to be transformed to achieve the required digitalisation. Digitalisation demands of SEs to relook their current business models in order to develop new and disruptive approaches which are common in new start-up companies that are more value creation focused to attract large numbers of customers very quickly (Abolhassan, 2017).

Further, drawing on previous research, authors (Rupeika-Apoga et al., 2022; Mapingire et al., 2021; Upadrista, 2021; Trenerry et al., 2021; Correani et al., 2020; Savey et al., 2020; Korachi & Bounabat, 2019a; Štemberger et al., 2019; Alemba, 2019; Vocke et al., 2019; Tarute et al., 2018) suggest that organisations which have embraced DT are better able to take advantage of new digital technology, nurture digital strategies leading to process improvement and modularisation, and can introduce new practices and innovative initiatives in their organisation (Osmundsen et al., 2018). Digital technologies are also transforming the structure of social relationships in both the consumer and the enterprise space with social media and social networking (Bharadwaj et al., 2013).

2.3.1 Technology transformation

How enterprises explore, incorporate and exploit technologies to create value for their customers depends on the attitude and level of importance that the owner or manager assigns to it (Trenkle, 2020). According to Matt et al. (2015:4), technology transformation outlines the following:

- a) The enterprise strategic goals and how it will use IT to achieve those desired goals
- b) The enterprise's vision to be a dynamic force in the market by setting the trend through the use of technology
- c) Conform to established market standards and use technology to fulfil its daily operations

The usage of technology can be seen as the improvement of the enterprise's innovation to become more agile and flexible (Valdez-Juárez & Castillo-Vergara, 2021). Stepanov et al. (2022) state that the use of technology allows enterprises to meet the ever-changing customer demands through high flexibility and rapid adaptation of these new technologies. The usage of technology by enterprises is an important factor as the full exploitation thereof has the potential to enhance the performance and client reach of the enterprise (Westerman et al., 2011).

2.3.2 Transformation through value creation

Kaufman (2010:2) states the following on value creation: “Without value creation, a business can’t exist—you can’t transact with others unless you have something valuable to trade”. Vial (2019) declares that an organisation can follow two separate value creation routes, namely: exploitation and exploration, where exploitation creates value from existing resources; and exploration creates new value through innovation. The value therefore provided by DT can be tangible through achieving financial cost efficiency, improved customer experience, and intangible benefits of the organisation’s business models, strategic plans and competitiveness (Ghosh et al., 2018). This means technology should create value to existing products and services offered to customers in order to create diversification (Matt et al., 2016).

2.3.3 Transformation of structural changes

Enterprises need to adopt the structural changes necessary to create these paths to new value creation and remove barriers to hindering the achievement of the desired outcome (Peter et al., 2020). This is to fully exploit and cope with new technologies, which requires enterprises to re-examine and transform their structure, processes and skillsets (Matt et al., 2016). Structural transformation enables enterprises to be more flexible, creates new job opportunities and encourages creative and innovative thinking, which ultimately affects both internal (employee) and external (customer) relations (Barmuta, et al., 2020). Matt et al. (2015) link the effect of the structural changes to the nature of the changes itself, stating that if the change is small, it should be incorporated into the existing structure of the enterprise; however, if it is a major change, it is best to create a subsidiary within the enterprise to manage the change.

2.3.4 Financial aspect transformation

At the centre of DT and before the other three elements can be considered, the financial aspect, which is the main driver, should be considered (Modiba, 2020). The financial aspect determines the enterprise’s level of urgency and motivation to drive DT in the organisation (Ubiparipović et al., 2020). The lack of financial resources to incorporate new technologies or replace existing technologies can negatively impact on the DT journey and are factors which should be considered before considering DT (Van Dyk & Van Belle, 2019). According to Kraack-Tichy et al. (2019), SEs do not possess the adequate financial resources to finance long expensive training courses and outsource consultants, and often fail to assess the risks and opportunities of DT. Sacolick (2017) therefore emphasises the importance of enterprises thinking through the financial aspects of their DT and how they are going to drive the return on investment (ROI).

2.3.5 Definition and understanding of DT

There are many definitions and understandings of the DT concept. Table 2.1 summarises some of the definitions. Vial (2019) argues that definitions about the types of technologies vary.

Table 2.1: Summarised definitions of DT

Author	Definition
Solis et al. (2014)	"The realignment of, or new investment in, technology and business models to more effectively engage digital customers at every touchpoint in the customer experience lifecycle."
Chaffey and Carson (2016:3)	"A staged programme of business and revenue model improvements to People, Processes and Tools used for integrated digital marketing to maximise the potential business contribution of digital technology and media."
Pagani and Pardo (2017:1)	"We define DT as the digitalisation of previously analogue machine and service operations, organisational tasks, and managerial processes to drive new value for customers and employees and more effectively compete in an ever-changing digital economy".
Ghosh et al. (2018:1)	"The modifications digital technologies can bring about in a company's business model, which result in changed products or organisational structures or in the automation of processes."
Riasanow et al. (2018:13)	"Probabilistic organisational change philosophy where digital technologies are used to fundamentally transform an organisation's business model and value network."
Vial (2019:9)	"A process that aims to improve an entity by triggering significant changes to its properties through combinations of information, computing, communication, and connectivity technologies."
Sokolova and Shevtsova (2019:146)	"DT is the transformation of business processes, competencies, models, knowledge changes, actions for the best use of new possibilities of digital technologies."
Bouwman et al. (2019:1)	"DT is defined as the process that is used to restructure economies, institutions, and society on a system level."
Morakanyane et al. (2020:4356)	"DT (DX) is an evolutionary process that leverages "digital technologies and capabilities to enable business models, operational processes and customer experiences to create value."
Peter et al. (2020:162)	"DT is a multidimensional phenomenon driven by technology that impacts society, politics and the economy."

DT is essential to triumph and be sustainable in the economy as every business today can be seen as a technological business with the ability to be a competitor (Aguiar, 2020; The Department of Small Business Development Republic of South Africa, 2020; Matt et al., 2020). DT focuses on managing internal efficiency, external opportunities and disruptive change (Parviainen et al., 2017). According to Reis et al. (2018) and Vial (2019), DT can be classified into three distinct categories, namely: i) technology; ii) organisation; and iii) social. From a technological perspective, these definitions emphasise that DT has to do with the use of digital technologies such as social media, mobile technologies, analytics, the Cloud, and the Internet of Things (IoT) (Mapingire et al., 2021).

Piccinini et al. (2015) state that DT involves using digital technologies to facilitate important business enhancements, such as consumer experience or developing new business models.

DT, therefore, enables SEs to concentrate on market requirements with agility and greater innovation (Verma & Ebojoh, 2020; Stenfeldt and Brauer, 2021). Even though modern digital technologies provide excellent opportunities, there are still an estimated 66%–84% of DT ventures that fail. DT thus requires a major conversion process and employee culture within the organisation (Lauth et al., 2019). According to Saarikko et al. (2020), it should be noted that there is a difference between DT, digitalisation and digitisation. Saarikko et al. (2020:828) explain that: i) “digitisation is the conversion of analogue signals to digital signals”; ii) “digitisation is a component of digitalisation”; iii) “digitalisation is the process of leveraging off digitised products”; and iv) “digitalisation in return is a subsumed [sic] of DT”.

Rogers (2016) explains that DT requires a holistic view of business strategy. However, SEs are underprepared for DT, defining indicators and becoming data-driven to manage changes at the required pace, especially for SEs (Mosconi et al., 2019). Aguiar (2020) states that DT is a dynamic and organic leap forward in a process although DT is particularly challenging for SEs. Hiller et al. (2020) believe that SEs should focus on key drivers such as the limited non-existence of resources as well as upskilling of employees. Another noticeable characteristic of DT is that access to the technology itself is seldom an obstacle; instead, the main issue is SEs’ ability to quickly develop and apply a feasible digital business model (Saarikko et al., 2020). DT is a journey that requires incorporating “technology, business and learning strategies” in SEs (North et al., 2018:7). It is a clear fact that DT is inevitable for SEs and that they should consider digital servitisation as a driving force for their development (Peillon & Dubruc, 2019).

As more SEs develop an awareness of the possibilities of technology, there is still a lack of comprehending the meaning of DT as well as the inability to interpret an appropriate strategy to help them achieve their business goals (Zapata et al., 2020). Literature indicates that SEs are often unaware of the various “options and elements” to consider before embarking on a DT journey (Saarikko et al., 2020:827). According to the World Economic Forum (2020:8), the character and speed of DT differs from company to company and is often determined by their “size, industry, digital maturity and capabilities”. Andersen (2019:15), however, states that very little is known of how DT is linked with business model innovation, strategic agility and the effects it has on the “organisation’s product innovation, strategy, cultural and leadership aspects”. The formulation of DT and strategy should be seen as a non-linear and evolving process that involves the following: “building an absorptive capacity, assessing maturity, formulating a digital business strategy, and creating a roadmap and a DT strategy that support the digital business strategy and the maturity level” (Stenfeldt & Brauer, 2021:i).

2.3.6 Challenges of DT

This section covers the barriers that hinder or even stop DT, which could be essential to avoid for a successful transformation. Vogelsang et al. (2019:4938) define barriers to DT as the

“absence of success as those few things that can hinder or stop the successful implementation of DT”. Various barriers are obstructing the route to achieving transformational change, which can be linked to challenges, obstacles and resistance (Gupta, 2018). Solis (2017) describes resistance from employees as a critical challenge that any organisation must face while transforming. Gupta (2018) further explains that it is normal for employees to resist change whilst a lack of resistance from employees could be an indication of no trust between the employee and employer. According to Westerman et al. (2011), resistance should not be ignored but rather dealt with as soon as it has been identified. Diener and Špaček (2021) explain that DT is a key influence that provides a way out to overcome the challenges faced by organisations to transform. Diener and Špaček (2021:3) further explain the fundamental practices of DT such as “leadership, digital trends, DT skills, digital strategies, implementation of digital technologies, and a customer-centric approach”, which are known impacts as organisations transgress through the digital maturity.

Peillon and Dubruc (2019:147) list the following barriers that would hinder DT for SEs:

- a) “Technical/technological barriers—SEs have limited financial resources and may not be able to afford new technologies, and cannot adopt or upgrade their digital technologies.
- b) Organisational barriers—the adoption and integration of DT is important, however, there may be resistance from employees to accept change, lack of communication around the change, lack of empathy from management and clash of organisational culture.
- c) Human resources barriers—lack of qualified skills and expertise to perform a DT and to explore and exploit digital technologies for their full benefits.
- d) Customer-related barriers—failure to understand the customer needs, inability to communicate perceived benefits to customers, lack of trust from customers with personal information”.

Table 2.2 shows the barriers for SEs when embarking on a DT journey.

Table 2.2: The barriers for SEs (Vogelsang et al., 2019:4939)

Barrier scope	Code
Missing skills	IT knowledge
	Information about and decision on technologies
	Process knowledge
Technical barriers	Dependency on other technologies
	Security (data exchange)
	Current infrastructure

Barrier scope	Code
Individual barriers	Fear of data loss of control
	Fear of transparency/acceptance
	Fear of job loss
Organisational and cultural barriers	Keeping traditional roles/principles
	No clear vision/ strategy
	Resistance to cultural change/ mistake culture
	Risk aversion
	Lack of financial resources
	Lack of time
Environmental barriers	Lack of standards
	Lack of laws

Sarosa and Zowghi (2003:165) state that DT drivers “are the encouraging influences for embracing IT technologies, whilst obstacles are undesirable influences for IT which may come from and external sources”. Internal barriers influence internal aspects such as an individual (owner/manager), costs or ROI, whilst external barriers such as lack of telecommunication infrastructure as well as political, social, cultural and legal barriers are outside of a SE’s control (Kapurubandara, 2009).

2.3.7 Drivers of DT

The acceptance of digital technologies brought about by I 4.0 and driving DT can lead to a strategic advantage for some SEs (Stenfeldt & Brauer, 2021) in terms of aligning products and services with customer demands as well as enabling better internal processes, for example, with faster innovation and shorter time to market (TTM) (Brown & Brown, 2019). However, within SEs, the motivation to DT often stems from the same individual that takes up the responsibility of owner and manager and is also often seen as the main financial investor (Sarosa & Zowghi, 2003). Owner-managers are responsible to analyse and perform functions such as planning, organising, executing and controlling DT to achieve measurable goals (Ulas, 2019). Sarosa and Zowghi (2003) mention that the input and support of the owner-manager are crucial for the success of DT. DT drivers can be divided into external and internal drivers (Ismail et al., 2017). These drivers compel organisations to keep up with digital changes taking place in the sector they operate in (Osmundsen et al., 2018). Liere-Netheler et al. (2018:3927) define drivers as “preliminaries and/or expectations about future benefits that positively trigger and influence the pre-adoption processes”. Peter et al. (2020:160) describe the drivers of DT as “process engineering, new technologies and digital business development, supported by digital leadership and culture, the cloud and data, customer centricity and DM”. The driver identification model discussed by Muditomo and Wahyudi (2021:17) suggest that the first step

of the process is to guarantee that the urgency to implement is understood. For example, the internal driver may have been low for many organisations before the pandemic condition, or the internal driver in the form of “operational digitisation efforts”, which may have a high level of urgency for a company to remain competitive in the market.

2.3.8 The importance of a strategy

At the heart of any company is a strategy that have been guiding for several years. Leaders do not always know the change implementation process, and attempting to adapt to the external environment may oppose the company’s plan (Shalina et al., 2020). Business project failure may occur where the ability to develop strategies to oversee improvement initiatives is non-existent (Brown, 2020). According to McKeown (2016), the word *strategy* originated from the Greek word *strategos*, which means “general” or “someone who has an army (*stratos*) to lead”. McKeown (2016) further states that the core of a strategy is the strategist who has the knowledge and ability to influence people to care enough to achieve the set goals. According to Fredrickson (1983:565), a key driver to an organisation’s performance is the strategy development process, which can be divided into synoptic and incremental strategy formulation approaches as developed by “Hunt in 1962”. Fredrickson (1983:565) also explains that those who use the synoptic approach to make decisions use a “systematic method” to solve the problem as a whole, but that an incrementalist divides the problem into manageable sub-problems. The articulation of the organisation’s strategic plan allows it to focus its efforts on developing the necessary strategic technologies and incorporating them into the organisation’s new products (Schilling, 2017).

2.3.9 DT strategy

The DT strategy is holistic in nature, spans across and is aligned to the other functional strategies. Porter (1998) states that the digitisation of daily processes already in existence should be standard practice for enterprises and would be seen as operational effectiveness, but it is not a strategy. Porter (1996:38) explains that there is a difference between strategy and operational effectiveness, with strategy meaning “performing different activities from rivals’ or performing similar activities in different ways”, and operational effectiveness meaning “performing similar activities better than rivals perform them”. Various researchers in recent times linked the digitisation of processes to a digitisation strategy that gained momentum when the Covid-19 pandemic impacted on businesses (Schallmo et al., 2021; Andriushchenko et al., 2020; Becker & Schmid, 2020; Ranz et al., 2019; Legner et al., 2017; Matt et al., 2015; Westerman et al., 2014a). Ross (2017:3) states that digitisation is an operational necessity and that without it, “companies cannot scale; they cannot absorb the complexity of expanded product portfolios; they cannot personalise services” suggesting that digitisation as an enabler of technology should not be confused with digital technology. Bharadwaj et al. (2013) explain

that an IT strategy is a blueprint for the operation of IT within the organisation whilst a digital business strategy's purpose is to combine the business and IT strategy into one strategy so that both the IT and business strategies are aligned. Gudergan and Mugge (2017:11) define DT strategy as "the actions taken by the senior management to change the organisation into a new digital business". Mapingire et al. (2021:14) define a DT strategy as "outlin[ing] how an organisation will use digital technologies to digitise the customer experience, products and services, employee ways of working and business processes". Rumelt (2011:15) states that having a vision is important, but the strategy to achieve the vision should be short term with a clear framework providing insight through "a diagnosis, a guiding policy and coherent action".

Researchers have highlighted the importance of formulating a DT strategy, although this field has not been fully investigated (Mitroulis & Kitsios, 2019a). Despite prior research, specific guidelines for organisations on how to formulate, implement, and evaluate DT strategies are still vague and both academics and practitioners need to further investigate this field. Many digitally successful companies have established a dedicated DT strategy, but from an SE viewpoint remains unaddressed (Trenkle, 2020). Most organisations seek specific guidelines for developing their DT strategies, but research thus far only focused on specific aspects of the DT phenomenon and does not provide specific guidelines for organisations to formulate, implement and evaluate a DT strategy (Korachi & Bounabat, 2019a). Mapingire et al. (2021) argue that there is a growing need to research DT strategies as it is still fairly new to most organisations, especially the components of a DT strategy.

Berghaus and Back (2017) mention that experimenting with DT in the early stages of the organisation's DT journey creates the foundation of the whole DT journey, thus making the extent and purpose of DT strategies different to that of IT strategies and digital business strategies (Zimmer, 2019). The DT strategy's purpose is therefore to focus on an organisation's transformation process holistically (Gkoustilis, 2019). A clearly articulated DT strategy is crucial for successful implementation and should touch on all the key drivers of business activities—from "development and production to advanced quality control, delivery, and analysis" (Albukhitan, 2020:666). According to Niehage (2020), a DT strategy provides the necessary assistance to leaders to be proactive in their planning for the future, determine what their future vision is, and how they will achieve it and be prepared for disruptors or competitors entering the market. DT strategies can also be seen as a structured and formal plan that directs an organisation throughout its DT journey (Ismail et al., 2017). With that said, "Digital business transformation and the dimensions which should be addressed in the DT process from a more strategic point of view should be improved in academic literature with valuable insights for managers on how to approach DT and implement a well-defined DT strategy in the

organisation” (Udovita, 2020:521). Diawati (2019) states that the organisation’s DT strategies influence all of the above, which include the strategy of customer and business experience.

2.3.10 Framework of a DT strategy

The DT framework by Matt et al. (2015:340) represents a clear step towards a holistic approach for the construction of a DT strategy. It claims that every DT endeavour should be structured along with four, well-aligned key dimensions (Matt et al., 2015:340):

- a) Use of technologies: A company’s strategic position and future ambition towards new technologies, as well as its ability to exploit them.
- b) Changes in value creation: The influence of DT on the way, a firm aims to add and create value.
- c) Structural changes: Modifications in a company’s operations, i.e. structures, processes, and skill set.
- d) Financial aspects: Deliver transparency about the urgency to act in the face of declining margins in a firm’s core business, and about a firm’s financial scope to invest in a DT endeavour.

Karltorp’s (2017:14) view of a framework is that it should be able to evaluate strategic changes whilst incorporating Galbraith’s 1977 organisational design model that consists of five interlinked features namely: “strategy, structure, processes, reward systems and people”. The framework provided by Albukhitan (2020:668) sets out a clear six-step process on how to holistically formulate, adopt and implement a DT strategy to successfully digitally transform, and explains the steps as follows:

- a) Creation of DT vision and objectives—SEs should clearly define goals and objectives for DT, build a strategy around the available resources in the enterprise, identify gaps in the current structure, identify a competitive advantage and focus on the experience they want to have with their employees and customers.
- b) Assess the organisations DT capability—due to the rapid change in technology as well as the constant market changes, SEs must assess their digital maturity level based on where they are currently in terms of DT, what infrastructure they have and how well their systems, software and tools are in addressing both their current and future needs.
- c) Design the end user and employee experience—after clearly defined objectives and goals were developed and the enterprise has a full understanding of the status of their digital maturity, the focus shifts to the employees and customers and the experience the enterprise want to create for them. The objective is to both simplify the employee’s daily tasks and to create value for customers through the usage of technology.
- d) Review and select solutions and vendors—the next step is to assess and select the vendors to provide a solution to meet the objectives and goals set out by the enterprise.

The criteria for vendor selection should be based on factors such as capabilities, functionalities, proven records and reputation as well as after-sales support and response time capabilities.

- e) Creation of implementation roadmap—the final step in the formulation process is to compile the objectives, expected employee and customer experience, current infrastructure and technologies and potential solutions, then bind them together into an actionable plan. This is to create a schedule and timeline for each task, assess human and financial resources, minimise disturbance to an existing business, provide feedback to stakeholders and ensure the DT journey remains on schedule.
- f) Adjust organisation culture and infrastructure—the final step in the DT strategy is to develop and prepare the infrastructure. This requires a dedicated leader and team within the enterprise who have the necessary skills and abilities to lead a DT. Should the necessary skills not be available internally, SEs should hire a reliable partner with the necessary experience, skills and abilities to assist with the successful implementation of the DT. To successfully implement DT, it is important for the enterprise to place a high priority on the DT journey and its objectives.

The two frameworks, whilst positioned differently, cover the same aspects, which are technology, people, processes and finance with some frameworks just delving a little deeper than the other. Whilst the first framework is a very high-level overview and is more applicable to larger enterprises, it can be applied to SEs as well. The 2nd framework is better structured for SEs as it provides a more detailed step-by-step guide on how to formulate, adopt and implement a DT strategy towards successful DT. For this reason and for the purpose of this study, the DT strategy framework set out by Albukhitan (2020) was selected.

2.3.11 DT strategy formulation through vision and objectives

According to Trushkina et al. (2020), a 2018 PWC report showed that two thirds of all companies do not have a clear digital vision and strategy to support the DT process and corresponding corporate culture. Despite considering DT as important, only 20% of all companies have a clearly defined vision of DT, which is below the global trends of 50% of companies having created a digital vision of their future (Savić et al., 2019). Erbek (2020:12) suggests that newcomers explore and learn the new technology and create a vision for how I 4.0 concepts can benefit the company in a set of “use cases”. These “use cases” will serve as input to the strategy development and formulation of a roadmap going forward (Erbek, 2020:12). Yet, transformational leaders inspire followers to achieve their collective goals with inspirational motivation such as sharing a vision or exchanging minds (Bi & Ni, 2015). Hussey (1998:278) defines vision as “the link to business with corporate culture, creating a common standard of values for the individual performance of employees”. Morden (2012:668) defines

vision as “an imagined or perceived but consistent pattern of communal possibilities to which others can be drawn, and whose values they will wish to share”. The vision should therefore concentrate more on the objective it wants to achieve with the clients and employees in mind and how it will be achieved and sustained through innovation (Heavin & Power, 2018; Albukhitan, 2020; Mikalef & Krogstie, 2020; Trenkle, 2020). It is not only sufficient for the leadership to have visualised the future; it also has to be innovative (Klein, 2020). This requires the creation of a shared vision between digital technology and business strategies and activities in the firm (Li et al., 2021). A shared vision promotes creativity, eagerness to experiment, and courage (Richter, 2017; Brown, 2020; Schiffhauer & Seelmeyer, 2021). What is critical, is that employees know very clearly what the company stands for, how it is moving toward its goals, and where the employee fits in (Asadi, 2020).

An equally important contributor is the vision that should be pragmatic depending on the organisation’s resources and ability to quickly achieve manageable small goals (Alcaraz et al., 2019; Albukhitan, 2020). This is because DT can be interpreted differently in different companies and sectors. After all, they have different levels of digital maturity and different values, stakeholders and visions (Nahrkhalaji et al., 2019). The strategic challenge for business is to develop the clear vision and the growing capability needed to put data to work in the service of innovation and value creation. By treating data as a key intangible asset to build over time, every business can develop a data strategy that informs critical decision making and generates a new value for businesses and customers alike (Rogers, 2016).

Articulating the organisation’s vision and goals is an important step to successfully transform digitally (Goerzig & Bauernhansl, 2017). DT is a fundamental change process; an customer-oriented and context-based solutions approach should help enterprises create a clear transformation strategy and provide a clear vision of the future (Goerzig & Bauernhansl, 2017; Albukhitan, 2020). This can be achieved through a leader who is a visionary and thinks strategically in making decisions (Fachrunnisa et al., 2020). The objective is to evaluate and compare the current state of digital adoption in the function of their preparation concerning the prevailing technological categories, including IoT, Big Data, social media, cloud computing, blockchain, augmented and virtual reality, among others, with future priorities of organisations in the implementation of DT (Pereira, Fonseca et al., 2020). The development of an objective gives organisations the ability to implement technologies, with importance placed on enhancing the organisation as a whole and not just isolated processes (Albukhitan, 2020). This stimulates organisations to be more innovative with their comprehensive strategy that holistically transforms the organisation and not just adopt individual technologies (Uvarova, 2021). The organisation must determine their maturity level before considering forming a

strategy for DT (Stenfeldt & Brauer, 2021). This can be achieved by setting long term objectives (Albukhitan, 2020).

2.3.12 Assess DT adaptability of the organisation

Although the urgency of responding to digital change seems clear, many companies do not know how to adapt and cope with the disruption (Barthel & Hess, 2019). Adaptability is an important component since not all innovative capability necessarily leads to agility or has the ability to deal with digital disruption innovation (Yeow et al., 2019). To support SEs in the technological and organisational planning of I 4.0, the assessment of the digital level of the company is found to be the starting point for effective strategic development (Brozzi et al., 2020). To survive and stay competitive, companies need to change and adapt their organisation to become nimbler in accordance with the rapidly changing external environment (Gupta, 2018). The evaluation of infrastructure and the capability of its system, software applications and tools is important to understand the organisation's current and future needs (Von Leipzig et al., 2017). This can be done through a digital maturity model assessment (Crupi et al., 2020). A maturity model provides some guidance on how organisations approach their transformation and maps out typical paths of how organisations go about their transformation (Teichert, 2019). This assessment assists organisations to make continuous improvements to their technology processes through automation or optimisation as well as changing fixed tools (Daemi et al., 2020).

Assessing the digital maturity level (Figure 4.2) of an SE can become problematic due to the various dynamics and decision-making processes where the characteristics must be mapped of a SE into the digital maturity level (Borštnar & Pucihar, 2021). Digital maturity frameworks and models provide a view of the extent to which organisation can transform at the different stages of DT (Kenzler & Rask-Andersen, 2020; Borštnar & Pucihar, 2021). To achieve the highest levels of digital maturity, organisations would have had to tackle various challenges such as “cultural, organisational, technical, and insights” (Gill & VanBoskirk, 2016:1).

According to the International Data Corporation (IDC, 2020:4) digital maturity assessments are done using the following criteria:

- a) “Digital strategy and organisation”—this is to determine how the organisation approaches digitalisation, what digitalisation strategy they have in place and how ready the organisation is to execute the digitalisation strategy.
- b) “Digital processes and governance—“what’s the level of automation, standardisation and process transformation and which processes are most automated?”
- c) “Digital technology—how mature is the company in leveraging key digital technologies to increase its competitiveness?”

- d) “Digital people and skills—does the company have the right skills and capabilities to source, manage and retain the right talent and are they tapping into other resources for assistance?”

The digital assessment will determine where the organisation’s digital maturity level will fall into one of the stages 1 to 4 as shown in Figure 2.2.

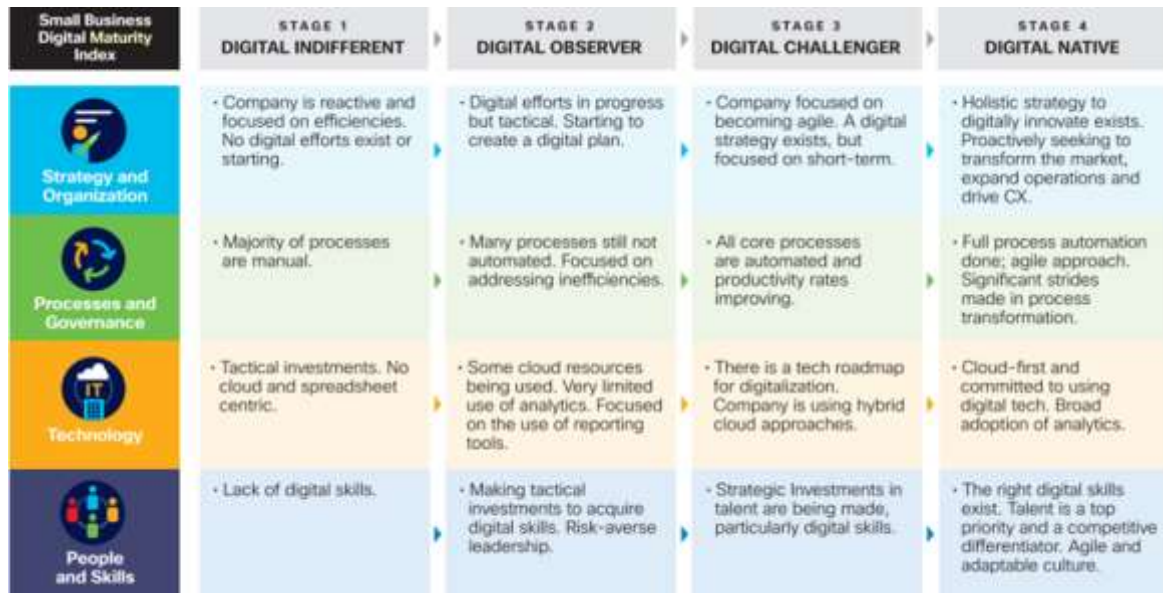


Figure 2.2: Four stages of digital maturity (IDC, 2020:5)

SEs are falling short when it comes to the development of strategies and implement new solutions (Dewa et al., 2018). Glass et al. (2018) propose that organisations deal with the shortage head-on by focusing their efforts and facilitating the subject at hand with employees. Colli et al. (2018) suggest that organisations consider a few existing digital maturity models and propose six sequential digital maturity stages of digitalisation to comprehend the organisation's key strategic focus areas, objectives and viewpoints.

The 6-stage digital maturity stages suggested by Colli et al. (2018:1348) are:

- None: No digital awareness, idea or plan and no presence of digital data within the organisation.
- Basic: Digital processes are in place and operative as they generate digital data.
- Transparent: Data are collected and shared according to value stream needs.
- Aware: Data are analysed to capture valuable information in order to understand the business insights.
- Autonomous: Decision making is performed autonomously based on automatically synchronised data from the organisation and its direct customers and suppliers.
- Integrated: Decision making is performed autonomously based on automatically synchronised data from the whole organisation’s network.

Gill and VanBoskirk (2016:7) use a different approach by developing a “self-assessment digital maturity model” that assists organisations with evaluating their digital readiness, which consists of “level one: sceptics, level two: adopters, level three: collaborators, and level four: differentiators”. Ryan et al. (2020:5) state that “the digital maturity process itself involves multi-disciplinary activities with technological factors being one of the most important areas of demand for companies along with the implementation of I 4.0”.

2.3.13 Develop employee and customer experience

The management of customer experiences is becoming more crucial than ever before requiring a holistic alignment with the organisation to strategically create that customer experience journey (An, 2019). Although customer experience is one half of the formula needed to successful DT, Upadrista (2021) states that the other more vital half of the key formula lies in the incorporation of digital culture through employee mindset and continuous learning within the organisation. SEs generally have little hierarchical organisational structures and employees often occupy various roles with little to no specialisation in any particular role (González-Varona et al., 2021). Tekic and Koroteev (2019) state that leadership takes on various roles within the organisation depending on the DT strategy. Tekic and Koroteev (2019:8) also note that “technology-led DT is general coordinated bottom-up and leadership from top management is more passive and allow initiatives, while organisations that employ a business model led DT are prone to an active top management leadership communicating and supporting the overall initiative”. In a study done by Li (2020), it has been identified that the success rate of leading DT is very low. Organisational resistance may be seen in both lower-level employees and middle managers (Ingaldi & Ulewicz, 2019). This is because employees may fear losing their jobs due to the increasing digitisation and lack of skills needed to deal with the new technologies (Ali & Aboelmaged, 2021). The decision by employees to embrace or resist any change is key to the performance of the organisation because when employees are not fully committed and their services are no longer available to the organisation, it could be the tragic end for the organisation (Charles et al., 2016). According to Peter et al. (2020), transformational leadership is the most successful way to lead employees and to inspire knowledge sharing and an innovative mindset needed for DT. This is to ensure new value creation for customers and employees in an ever-changing and developing digital economy (Ulas, 2019).

2.3.14 Review and select solutions and vendors

It is important to define individual demands and choose digital solutions that support the needs of the organisation and enable integration with relevant stakeholders (Bär et al., 2018). Shah (2019:26) defines solution delivery as “the capabilities needed to modify processes or build new methods onto the data and process platform”. Solution delivery requires effective methods

and strong skills in IT, especially those pertaining to the use of emerging digital technologies and practices. This could entail partnerships with external vendors as well. The available IT solutions are many times perceived as not beneficial, too complex to use, or taking up too many resources. Relations between SEs and out-sourced IT companies require trust and transparency to work (Matintupa, 2018). It should be pointed out that DT is not only about the implementation of IT solutions, but also about a broader context in terms of “organisational change”, “cultural transformation” and “moving towards customer-centric approach” (Verina & Titko, 2019:725). It is worth noting the enterprises will accept transformational changes at their own pace and that many still have a long journey ahead (Westerman et al., 2011). Gupta (2018) further states that the digital disruption facts are already taking place in various sectors where new platform businesses are entering and disrupting the existing and previously dominated market places. Sánchez (2017) adds that Facebook, Airbnb and Uber are good examples of the platform economy, with organisations globally creating more agile solutions and platforms relevant for the digital economy.

The most frequently mentioned technological solutions, which are driving forces or pillars of I 4.0 and at the same time determining characteristics, include the Internet of Things (IoT), cloud computing, big data analytics (BDA), additive technology (AT) and 3D printing, autonomous robots, and augmented reality (AR) (Pollak et al., 2020). This phase needs enterprises to complete a full and thorough assessment of the vendor solutions and offerings of the various technology providers (Albukhitan, 2020). This suggests that vendors also play an important role in the computerisation of SEs relying on vendors to propose alternative information and communication technology (ICT) options and to provide after-sales service and training (Windrum et al., 2002).

These measures take into consideration the adequacy and quality in addition to the amount of technical support and training provided. The adequacy of technical support and training provided does not fully reflect the effectiveness of the technical support and training provided respectively. The quality of these services is also important. It is furthermore necessary to measure the adequacy of technical support during and after implementation. The effectiveness of vendor support may deteriorate after the information system has been delivered and payment has been made.

2.3.15 Create and implement a roadmap for a DT strategy

The implementation process of I 4.0 solutions is not yet comprehensively researched and there are many interesting research topics for the future in both the categories named in this research. In addition to the named challenges, politics and legislation affect the future of I 4.0. global challenges such as sustainability, and labour supply can also be more thoroughly handled with the I 4.0 framework in the future (Pöllänen, 2019). Simonse et al. (2015:910)

define a roadmap as i) a visual portrait, which provides an ii) outline of the market, product, and technology plans, with elements that iii) are plotted on a timeline. A roadmap, and in particular its core feature of scaling can assist firms in overcoming the challenge of achieving inter-temporal strategic decision making (Siebelink et al., 2021). The starting point of a strategic roadmap for DT is to articulate the challenges faced by your organisation. A clear list of challenges will keep you aligned with your strategic vision or goals and heading in the right direction (Seet, 2019). The roadmap must be easily accessible, straightforward and informative. The roadmap, therefore, may be considered as a guideline that raises awareness about the steps that are necessary to undergo DT and how to complete these steps. It can be directly applied and will assist SME leadership throughout the planning process of the DT endeavour (Kretzschmar, 2021).

2.3.16 Organisational culture and infrastructure

It is important that the culture within the organisation adapt to the new changes quickly and efficiently to ensure the success of the DT (Hartl & Hess, 2017). Niehage (2020:4) states that the organisational culture can adapt to the new changes if leaders i) create a supportive environment, ii) create awareness around the change, iii) involve employees in the change and, iv) continuously drive the digitalisation culture. Albukhitan (2020) mentions that supporting the employees and organisation is important and if internal expertise is not available, seek external support by appointing a reliable partner. This is to ensure that the new technology is compatible with the existing infrastructure, to provide sufficient training for employees, and to resolve any issues that arise during and after the implementation of the new technology (Stenfeldt & Brauer, 2021).

2.4 Existing gaps

Despite strategy being a driving force behind DT, only limited current research contributions tackling the subject of the dynamics of DT strategies are available (Tekic & Koroteev, 2019). According to Brown and Brown (2019), the knowledge around DT strategies versus DT and how these two theories work together is still not in agreement. Previous research discusses IT resources in terms of technical know-how and IT-enabling capabilities. There is an absence of materials to investigate the place of resource structuring—orchestration and complementarity—in digitisation synergistically. Even less is the number of inquiries into how organisational culture and practices impact on digitisation and business value generation (Sirisukha, 2020). Despite the acknowledgement by fellow researchers on the importance of a “dedicated strategy”, it is still in its early stages and still requires more detailed work to fully understand how to successfully achieve DT (Ismail et al., 2017). There is thus an empirical need to understand the context around how organisations can successfully implement a DT strategy since the literature only provides “guidance” on certain aspects of DT (Loonam et al.,

2018:3; Matt et al., 2016:3). Pereira, Durão et al. (2020) emphasise in their study that the failure to articulate the details around the implementation of DT strategies as well as identifying each key role player across all hierarchical levels could lead to the failure and even endangerment of the organisation as a whole.

2.5 Underlying research theories

This section provides a background of the relevant research theories underpinning this study. While many theories have been used in IS research over the past decades, few of these have predominantly shown relevance to the organisational aspects of technology adoption, acceptance and use in enterprises. Prominent theories in IS research underpinning this study are: i) the Diffusion of Innovation theory (DOI) developed by Rogers (1983); ii) the Technology, Organisation and Environment theory (framework) (TOE) of Tornatzky and Fleischer (1990); iii) the Dynamics Capabilities framework of Teece et al. (1997); iv) and the Transaction Cost Theory (TCT) by Williamson (1979). Information system studies employ socio-technical theories to guide their studies. The use of the theories to underpin studies lies mainly in the areas of qualitative interpretive research. This is primarily because of the interplay between technical and non-technical factors which are involved in the field of IS (Mkhomazi & Iyamu, 2013).

According to Ismail (2006) and Dearing and Cox (2018), Rogers' DOI model is a very popular theory model studied by scholars for many years to assist with the adoption of innovation and new technologies. The perception of these new technologies is to provide a competitive advantage especially for SEs where resources are limited (Ayong & Naidoo, 2019). Rogers (2003:6) defines DOI as "the process in which an innovation is communicated through certain channels over time among the members of a social system". According to Alyaqoub and Rahman (2018), the DOI theory concentrates on the aspect of innovations that can spread between two or more organisations using internal networks. DOI seeks to give context to the questions on "how, why, when, who, where and at what rate innovative ideas and technologies spread in a social system" (Alyaqoub & Rahman, 2018:307). A barrier that Lyytinen and Damsgaard (2001) foresee with Rogers' DOI model is that it comes across as too simplified and may not necessarily have taken into consideration more complex technology and networking IT solutions. Matt et al. (2015:6) state that due to the complexity of a DT strategy and the rapid and constant change in the "diffusion of digital technologies", it is important for organisations to reassess their DT strategies on an ongoing basis to evaluate their transformational progress to date.

TOE framework has been used extensively in literature where studies address the behaviour against introducing new technologies. It has also been used in the area of DT by some scholars to categorise the success factors of DT strategies (Prause, 2019; Alkhamery et al., 2021). The

TOE framework was proposed by Tornatzky and Fleischer in 1990 to categorise factors influencing the adoption of innovation. It determines three categories of an organisation that influence the adoption of technological innovation. The three areas are technological factors, organisational factors and environmental factors (Alkhamery et al., 2021). This framework is consistent with the DOI theory, in which Rogers (1995) emphasises individual characteristics and both the internal and external characteristics of the organisation as drivers for organisational innovativeness, but the TOE framework also includes a new and important component environment context (Oliveira & Martins, 2010).

The goal of the strategic theoretical framework of dynamic capabilities is to describe how the organisation can recognise opportunities, seize them, and deliberately reconfigure its resources to capitalise on their opportunities (Helfat & Winter, 2011). The theoretical framework developed by Teece et al. explains how organisations can innovate to sustain a competitive advantage (Teece et al., 1997). In response, Eisenhardt and Martin (2000:1106) argue that dynamic capabilities are more homogeneous, less similar in form, and the competitive advantage gained will only last for a short time. Arbussa et al. (2017:271) posit that SEs can be advantaged through the dynamic capability theory to drive a successful business model transformation through strategic agility, which is a combination of i) strategic sensitivity, ii) leadership unity, and iii) fluidity of resources. Kurtmollaiev (2020) argues that whilst the dynamic capability theory received fierce criticism from researchers, its approach is suitable to influence individuals within the organisation towards making the theory favourable for SEs.

The concept of *transaction cost economics (TCE)* or *transaction cost theory (TCT)* was first introduced by “Ronald Coase in his 1937 research paper The Nature of the Firm as simply ‘the cost of using the price mechanism’ (Allen, 2000:893). Coase’s purpose for his paper was to seek “why a firm emerges at all in a specialised exchange economy” (Coase, 1937:390). TCT is used to comprehend the boundaries of organisations’ “alternative production and transaction costs such as monitoring, controlling and managing transactions in a relationship” (Ayong & Naidoo, 2019:49). Whilst Coase’s TCT has both critics and supporters, his research has drawn particular interest by two researchers, Oliver Williamson and Yochai Benkler. While Coase is considered the founder of TCT, Williamson has redefined and Benkler has revolutionised TCT by incorporating the role of technology in the theory (Rindfleisch, 2020:94). TCT by Williamson (1985:10) suggests the exploration of the substitute cost of managing “inter-organisational contractual transactions” in relation to other methods of transactions. Williamson (1985:57) further states that the variables to consider are:

- a) “Uncertainty—there are two types of uncertainty, namely behavioural which is important for the understanding of TCT from a strategic and opportunism perspective,

and environmental uncertainty which is the uncertainty with respect to technology, demand, local factor supply conditions, inflation, and the like.”

- b) “Transaction frequency—refers to the buyer’s activity in the market from which transactions can be one-time, occasional or recurrent.”
- c) “Asset specificity—asset specificity refers to i) durable investments that are undertaken in support of particular transactions, ii) the opportunity cost of which investments is much lower in best alternative uses or by alternative users should the original transaction be prematurely terminated, iii) the specific identity of the parties to a transaction plainly matters in these circumstances, which is to say that continuity of the relationship is valued, iv) contractual and organisational safeguards arise in support of transactions of this kind, which safeguards are unneeded (would be the source of avoidable costs) for transactions of the more familiar neo-classical (nonspecific) variety.”

Rindfleisch (2020:94) states that Coase, Williamson and Benkler all have different views of the role of technology on TCT. Coase only acknowledges technology as a reason for the vertical integration of TCT. Williamson recognises that the market and technology change, that technology is not perceived as a determining factor for an organisation. Benkler places more emphasis on technology and its impact on TCT in terms of cost. Benkler (2017) states that technology is the key in driving down communication costs, which, in turn, creates the opportunity for online collaboration and innovative knowledge sharing between larger audiences in various locations.

Based on TCT, the cost of carrying out the activity depends on whether an organisation arranges the activities internally or externally (Karimi-Alaghehband et al., 2011). The more trust in the provider, the less the negotiating cost, initiating cost and monitoring and control cost (Ayong & Naidoo, 2019). The theory rests on the assumption that individuals and organisations are cognitively limited, thereby making it difficult to foresee all the possible contingencies in transacting, writing and monitoring, and this may make transactions prohibitively more costly (Afuah, 2003). In SEs, the owner carries the accountability of making the choices on all features of technical transformation; thus, “risk adversity” may hinder the innovation process (Bougrain & Haudeville, 2002:738).

According to Bougrain and Haudeville (2002:738), the following types of behaviour are found in managers:

- a) “Managers who are in their comfort zone looking for stability within their organisation and who see innovation as a financial risk unless circumstances force them to change.”
- b) “Managers with a healthy risk appetite who encourage exponential growth of the organisation by always looking for the next opportunity.”

Lechman (2010) is of the opinion that the transaction cost theory (TCT) complements the capabilities of SEs because of the limitation of their resources.

The theories underpinning this study were selected based on the nature of the study, the elements of a DT strategy, and DT and the nature of SEs. The nature of the study required a few specific theories to underpin the study. The prominent underpinning theories that have been applied in this research were: The Diffusion of innovation (DOI) theory of Rogers, the Technology, Organisation and Environment (TOE) framework of Tornatzky and Fleischer, the Dynamic Capabilities Theoretical Framework of Teece et al. (1997) and the Transaction Cost Theory of Williamson.

2.6 Summary

DT is more than merely the utilisation of digital technologies for the daily operations of an enterprise. In this chapter, the concepts, definitions of DT as well as the transformation of various aspects such as technology, value creation, structural changes, and finance have been presented. Different types and scenarios of DT strategy frameworks based on previous studies have been discussed. The importance of a strategy and the digital maturity assessment and understanding of the enterprise's DT adaptability based on their level of digital maturity have been explored. The challenges and drivers of DT were discussed. Importantly, how to formulate, adopt and implement a DT strategy framework to digitally transform successfully have been discussed, and the different work studies that have been conducted on the topic before were comparatively analysed. The clarification of terms and a broad understanding of the existing research outcomes were stated. The research methodology and design of this study are presented in Chapter 3.

CHAPTER 3: RESEARCH METHODOLOGY AND DESIGN

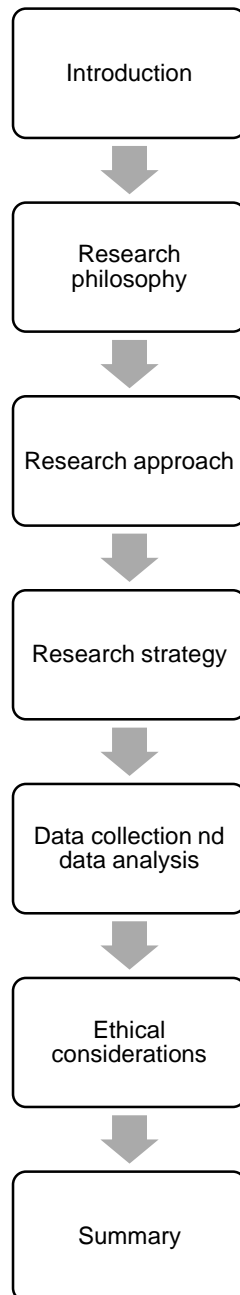


Figure 3.1: Layout of Chapter 3

3.1 Introduction

Research methodology provides the reason for the process creation utilised to formulate a theory that serves as a guide to carry out the research (Mohajan, 2018:4). The research methodology is also determined on the grounds and nature of ontology and epistemology selected by the researcher (Neuman, 2014). According to Zikmund (2003), the research methodology indicates the procedures and methods that need to be followed in order to

assemble and analyse data. Mouton (2001) states that research methodology includes tools and procedures to be used in achieving the objectives of the study as well as the method employed in the research process. Mkhomazi and Iyamu (2013:526) further state that the research methodology is made up of “methods, techniques and approaches” that serve as a framework for the research. Kothari (2004) explains that research methods or techniques are the tools used to perform research and collect data, which can be seen as one aspect of the research methodology. Saunders et al. (2007) explain that researchers use the word *method* to refer to the techniques and approaches used to collect and analyse information. Researchers select their research methodology based on the paradigm that drives their research activity, specifically views on reality and humanity (ontology), the theory of knowledge that guides the research (epistemology), and how they acquire that knowledge (Nayak & Singh, 2015). This chapter is presented as follows: i) research philosophy; ii) research approach; iii) research strategy; iv) data collection; v) data analysis; vi) ethics; and vii) summary.

3.2 Research philosophy

Research philosophy can be considered as the “source, nature, and development of knowledge” (Hamal & Sapkota, 2020:29). The two key research paradigms are ontology and epistemology (Abu Alhaija, 2019; Saunders et al., 2007). Saunders et al. (2016:124) define research philosophy as a “system of beliefs and assumptions about the development of knowledge”. Research philosophy can also be referred to as a research paradigm (Khatri, 2020). Willis (2007:8) defines a research paradigm as “a comprehensive belief system, world view, or framework that guides research and practice in a field”. Ontology and epistemology are key characteristics of the research philosophy (Abiodun et al., 2021). Creswell (2013) emphasises the importance of the research philosophy as a framework to guide the researcher with the formulation of the research problem, questions and answers to the research questions. Kirongo and Odoy (2020) state that the researcher's thinking pattern and knowledge will determine the research philosophy being applied to the study. This is because ontology concerns the “nature of reality” and epistemology concerns the “nature of knowledge” (Abu Alhaija, 2019:123). The researcher, through the usage of ontology and epistemology, alludes to the belief system and world view of the phenomenon under investigation. In this study, the phenomenon investigated was the factors that affect the adoption of DT strategies by SEs.

Rehman and Alharthi (2016:51) state that research philosophy is underpinned by three major paradigms namely: “positivism, interpretivism, and critical theory”. Saunders et al. (2019) describe positivism as the visible reality and evidence being objective and free from human analysis, whilst interpretivism believes in the perceptions of humans and the interpretation of their viewpoints.

This study was designed to be approached qualitatively with an interpretive multiple case study strategy (sections 3.4 & 3.5). Connecting this to interpretivism, Creswell and Poth (2018:60) explain that interpretivism requires that: i) “individuals seek understanding of the world in which they live and work” and ii) “develop subjective meanings of their experiences” which can only be obtained through interaction with the individual.

Ontology and epistemology as research philosophies are discussed in sections 3.2.1 and 3.2.2.

3.2.1 Ontology

Ontology is a branch of philosophy that is the science of what is, of the type and structures of objects, properties, events, processes and relations in every area of reality (Smith, 2003). Saunders et al. (2007) state that ontology is interested in what is real. Coffey (2011) further elaborates that ontology is concerned with the objects of knowledge, with reality considered in the widest, deepest, and most fundamental aspects under which it is conceived by the human mind. According to Buckingham et al. (2011:253), the word *ontology* stems from the Greek words “*ontos*” which means “*being*”, and “*logos*” which means “*study*”; therefore, ontology is the study of being. Philosophers often use ontology as a “synonym of metaphysics” which was first used by one of the first philosophers Aristotle and his students (Smith, 2003). Ontology is the foundation of any research study after which “epistemology, methodology, and methods” follow (Singh, 2019:3). For an objectivist, the world exists independent of our knowledge of it, i.e., “it exists out there” (Gray, 2013:15) waiting to be discovered. For a subjectivist, there are multiple realities that are constructed socially and there are various ways to access them.

A subjectivist stance was adopted for the study.

3.2.2 Epistemology

Epistemological assumptions are concerned as to how knowledge can be created, acquired and transferred (Singh, 2019; Tennis, 2008; Saunders et al., 2007; Rescher, 2003; Cunningham & Fitzgerald, 1996). Epistemology is “concerned with the truth and certitude of human knowledge, with the subjective conditions and the scope and limits of its validity, with the subjective or mental factors involved in knowing” (Coffey, 2011:28). Some common names of epistemic stances include: pragmatic, positivistic, operationalist, referential, instrumental, empiricist, rationalist and realist, among others. Each of these makes claims as to what kind of knowledge can be created through research, how it is gathered, and how it is presented. These epistemic stances do this work because they have a systematic view of reality, our knowledge of it, and the meaning we can ascribe to it (Tennis, 2008). Meta-knowledge, the development of higher-order knowledge about our knowledge itself, is one of the principal tasks of epistemology. The development of meta-knowledge is a crucial component of

epistemology and in its pursuit, we encounter some very interesting but also disconcerting results, seeing that attention to the actual nature of our knowledge yields rather paradoxical facts (Rescher, 2003). Positivist epistemology assumes that the truth about phenomena can be discovered through the application of the scientific method. Interpretivist epistemology assumes that knowledge can only be created and understood from within the contexts that give meaning to experience (Hatch, 2013).

To acquire knowledge on a phenomenon, specific detailed research questions need to be designed that are ontologically and epistemologically guided (Khatri, 2020; Ejnavarzala, 2019). To explore the factors affecting the adoption of a DT strategy by SEs in Cape Town, an interpretivist perspective was adopted to understand the realities of the world as it is, to interpret it, and to work towards finding an explanation for the information obtained (Mason, 2002).

3.3 Research approach

In the research approach, data, according to Bryman and Bell (2019), can be categorised in two ways: inductive and deductive reasoning. Cohen et al. (2000) argue that data can be categorised in three ways, namely: inductive, deductive and abductive or retroduction reasoning. According to Tracy (2013), the inductive research approach is an ascending approach with an emic viewpoint and a deductive research approach is a descending approach with an etic viewpoint. This is because the inductive research approach concentrates on the worldview of the subject, then uses the data collected analysed to formulate a theory as oppose to a deductive research approach that begins with a clear existing theory which is then tested to formulate a hypothesis (Saunders et al., 2019; Creswell & Creswell, 2018; Greener, 2008). Abductive reasoning, according to Saunders et al. (2019), interchange between starting with a theory first before looking at the data and starting with analysing the data first before formulating a theory. Wohlin and Aurum (2014) state that the deductive approach seems to be more favourable for quantitative research because its focuses on testing a theory, while induction is appropriate for both quantitative and qualitative research as it focuses on observation and general conclusions. Saunders et al. (2016) further state that abductive reasoning is not limited to any particular methodology and is favourable in either quantitative, qualitative or mixed-methods research due to its flexibility in approaches.

For this study, an inductive research approach with a qualitative research strategy was selected to collect data from 15 SEs in the Cape Town area. A qualitative method was selected based on the method's ability to i) perform subjective studies through an inductive approach, ii) explore the subject and data close up, and iii) gain deeper insight, understanding and meaning to the data, as opposed to quantitative methods, which are i) used to conduct

objective studies using a deductive approach, ii) systematically created prior to data collection, and iii) detached from the data (Edson et al., 2017).

3.4 Research design

Research studies can have various intentions, but only one research design can be dominant in the research study (Neuman, 1997). Akhtar (2016:68) describes research design as “the bond that connects all the fundamentals of the research”. Saunders et al. (2019:186) state that the research design can be “exploratory, descriptive, explanatory or evaluative purpose, or some combination” thereof, which determines the research methodology.

Saunders et al. (2019:186) explain each research technique as follows:

- a) Exploratory research studies seek to explore and obtain context about a certain subject of interest by asking open-ended questions related to what is happening and how it is happening. There are various ways to perform an exploratory study, for example, “a search of the literature; interviewing ‘experts’ in the subject; conducting in-depth individual interviews or conducting focus group interviews”. Qualitative research and mixed-methods research lean towards being more receptive to exploratory research studies.
- b) Descriptive research wants to derive a factual portfolio of occurrences, people and situations through research questions likely to answer the “who, what, where, when or how” of the research question(s). Descriptive research may be seen as the continuation of exploratory research but provides more detailed outcomes and descriptions from the data collected. Quantitative research and mixed-methods research are more accepting of descriptive research studies.
- c) Explanatory research studies seek to determine the “causal relationship” between two or more sets of variable data, which provide a reason of cause and answer the “how” or “why” of the research question(s). Explanatory research serves as a continuation for exploratory or descriptive research and provides the reason and causes why something transpires. Quantitative research, qualitative research and mixed-methods research are open towards explanatory research studies.
- d) Evaluative research studies seek to evaluate business processes, strategies and policies to determine the effectiveness of it by answering research questions around the “what”, “how” and “why”. The evaluation research study further allows for a comparison between subjects or objects whilst collecting data to answer the “which”, “when”, “who” or “where” of the research question(s). Quantitative research, qualitative research and mixed-methods research are receptive to evaluative studies.
- e) Combined studies: Researchers making use of a combined study use a synthesis of exploratory, descriptive, explanatory and evaluative research to answer research

question(s). Both quantitative and qualitative research is open to using a combined research study; however, the research data collected will be analysed in a quantifiable method.

Zikmund et al. (2009) state that decisions between the various research designs are situationally dependent with advantages and disadvantages for all of them. Considering the type of data collected and the way of this data being analysed, the inductive qualitative approach was deemed the most appropriate for this research. An exploratory research design was therefore employed by following a multiple case study strategy using interviews to determine how SEs can implement and benefit from DT (Szalavetz, 2020).

3.5 Research strategy

Research strategies provide the overall direction of the research, including the process by which the research is conducted (Wedawatta et al., 2011). To select research methods, techniques or approaches, the researcher must first choose a research strategy approach such as quantitative, qualitative or mixed-methods, which will provide a blueprint for the direction of the research study (Jongbo, 2014). The choice of research strategy was guided by the research question(s) and objectives, the extent of existing knowledge, the amount of time and other resources available, as well as the philosophical underpinnings (Saunders et al., 2007).

Creswell and Creswell (2018:58) describe the research strategies as follows:

- a) Quantitative approach: A quantitative approach to research involves exploring the relationship among variables, which are determined by measuring them with instruments so that numbered data can be analysed using statistical techniques.
- b) Qualitative approach: A qualitative approach explores and understands the meaning that individuals and groups attribute to social problems. In the research process, the researcher generates questions and procedures for the study, collects data in a participatory setting, analyses the data inductively from particular to general themes, and interprets the findings.
- c) Mixed-methods approach: Mixed-methods research involves obtaining quantitative and qualitative data and incorporating this data by utilising various design techniques which may involve philosophical assumptions and theoretical frameworks.

Leavy (2017:124) describes the research approach as follows:

- a) Quantitative approach: Quantitative research is a deductive approach by nature and pursues to attest, negate or give credibility to current hypotheses from an objectivist viewpoint.

- b) Qualitative approach: Qualitative research is an inductive approach by nature and pursues to create meaning around the experience of people from a subjectivist viewpoint.

Bell et al. (2019) state that the importance of noting that neither qualitative, quantitative nor mixed-methods is inherently a stronger approach than the other as each has its strengths and limitations.

A qualitative research approach was applied in this study. According to Mohajan (2018:19), this approach provides a holistic view of the participants' "feelings, opinions, and experiences, and interprets the meanings of their actions", which allows the researcher to obtain and analyse data on a deeper level for possible new insights.

3.5.1 Case study as a research strategy

The case study as research strategy often emerges as "an obvious option for students and other new researchers who are seeking to undertake a modest scale research project based on their workplace or the comparison of a limited number of organisations" (Rowley, 2000:16). Duff (2012) states that case study as a research strategy is a very influential option to obtain and investigate data to build a theory. According to Kumar (2011), case study strategies are more favourable with a qualitative design, but that does not mean it cannot be used with a quantitative design as well. This can be done in an individual case study or a multiple case study (Schindler, 2019).

3.5.2 Case study strategy explained

Case study as a research strategy is a popular but complex method used to add to the body of knowledge of "individuals, groups, organisational, social and political" spectrums across all sectors (Yin, 2003:1). The case study strategy tends to respond to the "why, what and how" questions of the research study (Saunders et al., 2007:146). Saunders et al. (2007:592) define a case study as a "research strategy that uses a multiplicity of sources of evidence", that helps gain a better understanding of the research problem. Robson and McCartan (2016:176) define a case study as a "strategy for doing research which involves an empirical investigation of a particular contemporary phenomenon within its real-life context using multiple sources of evidence". A case study is defined by Adelman et al. (1976:141) as "the study of an instance in action". It is also defined by Pring (2000:40) as "the study of the unique case or the particular instant". Cohen et al. (2000) posit that case studies allow researchers to gain an understanding of actual people under real circumstances, which provides a more realistic view as opposed to a theory. Morris and Wood (1991) mention that a case study strategy is a favourable option for researchers who want to gain an in-depth understanding of the process and research background. A case study strategy is in most cases either descriptive, explanatory or

exploratory (Gerring, 2017:56). Yin (2003:14) emphasises the point that a case study as strategy should not merely be associated with qualitative research, as some qualitative research studies take on the form of ethnographic methods that i) seek to see the natural worldview from the experience of the subject researched and ii) steer away from previous theory work, but it can be based on both qualitative and quantitative research methods.

For this particular study, a multiple case study strategy with an exploratory design was chosen in the context of the characteristics of DT with a focus on SEs in the containment of the City of Cape Town.

3.5.3 Multiple case study approach versus single case study approach

A major decision in developing a research design is the decision to study either a single or multiple set of cases (Irani et al., 1999; Gustafsson, 2017). In certain fields, multiple case approaches have been considered as a different methodology to a single case study (Schell, 1992). Yin (2018:83) explains that case studies “can be divided into single case studies whereby single case studies can be holistic or embedded designs as opposed to multiple case studies that can also be holistic or embedded design”.

Yin (2018:84) further explains holistic and embedded case studies as follows:

- a) Holistic case study designs: For single case studies, the researcher analyses a single organisation as a whole and performs a single experiment on one aspect of the organisation as a case study. With multiple case studies, the researcher analyses multiple organisations performing individual experiments within each organisation, focusing on single aspects only.
- b) Embedded case study designs: For single embedded case studies the researcher do not just focus on one aspect of the organisation but analyse various units, sub-units and sub-sub-units within the one organisation. With multiple embedded case studies a similar case study is performed as with the single embedded case study, but across multiple organisations.

Irani et al. (1999) state that the purpose of a case study is to provide the researcher with the opportunity to inquire and become more in touch with the facts of the research study. The purpose of the case study also influences how deep or how long the study will be. which sets the foundation for the researcher on selecting either a single case study or multiple case study design (Piekkari & Welch, 2011). The study of a single case enables the researcher to investigate and get close to the phenomenon and study it in depth. It also allows for a ‘rich’ description and identification of a deep structure. The study of multiple cases may not enable the same degree of ‘rich’ description of data as studies of single cases, but a multiple case design allows analysis of data across cases. Furthermore, it enables differences in context to

be related to constants in process and outcome (Elzoumor & Strachinis, 2019). Multiple case approaches allow the researcher to cross-check research findings after theory building (Irani et al., 1999).

Moreover, the reliability of the thesis is increased when using multiple different cases as empirical evidence. The disadvantages of multiple case studies are that conducting them could be time-consuming and expensive (Yin, 2003). Further, a topic is not as profoundly investigated in a multiple case study approach as it would be in a single case study approach (Dyer & Wilkins, 1991).

3.5.4 Unit of analysis

The unit of analysis is defined statistically as the “who” or “what” for which information is analysed and conclusions are drawn (Sedgwick, 2014:1). The unit of analysis is the person or object from which the business researcher collects data. It answers the question of “what” and “who” is being studied in business research. It is the whole unit being researched. It includes individuals, groups of individuals, organisations of individuals, countries, technologies and objects that are the aim of the investigation. Identifying the unit of analysis may seem like an easily perceived step, but it is oftentimes overlooked in business research (Kumar, 2018). It thus becomes important to understand and identify contextual factors that surround the unit of analysis (Grünbaum, 2007).

According to Grønmo (2019:152), there are four differences between the unit of analysis for qualitative research and quantitative research, namely:

- a) Unit of analysis is more favourable in qualitative research than quantitative research due to the exhaustive amount of information that can be obtained about each unit analysed through qualitative research.
- b) Quantitative research is based mostly on the same information about all the units whereas qualitative research uses various types of information about the units to analyse.
- c) In quantitative research, the sampling of units takes place before data collection and in qualitative research, it is a parallel process.
- d) In quantitative research, the recorded analysed data are quantifiable in numbers and the qualitative research the recorded analysed data are expressed in text form.

This research was targeted in the direction of exploring the characteristics of DT that can assist small or start-up businesses with the process of implementing a DT strategy for their business in Cape Town. The DT strategies and processes of SEs were the units of analysis for this study.

3.5.5 Unit of observation

The unit of observation and unit of analysis are often confused. The unit of observation, sometimes referred to as the unit of measurement, is defined statistically as the “who” or “what” for which data are measured or collected (Sedgwick, 2014:1). One representative was interviewed from each SE selected. The 15 individuals interviewed (one from each selected SE, section 4.2) constituted the units of observation. The selection of the enterprises to be invited to participate in the research was based on the size of the organisation, as the enterprises had to meet the criteria of a small enterprise as per the small enterprises business ministry definition; the enterprise had to be a probable candidate for the use of technology to run a business, and the location of the enterprise influenced the sampling process. For each invited enterprise that accepted to participate in the research, a semi-structured interview was conducted with either the owner of the enterprise, the enterprise’s managing director, the director or a chief executive officer working on a full-time basis for the enterprise. In-depth virtual interviews via Zoom and Microsoft teams were conducted with nine (9) business owners, three (3) managing directors, two (2) directors and one (1) chief executive officer, in total 15 Ps.

3.6 Data collection

Various strategies are used by researchers to collect data for research (Hox & Boeijs, 2004). These data strategies can be categorised into primary data and secondary data (Zozus, 2017). Bairagi and Munot (2019:18) define primary data as “new data collected directly by the researcher and secondary data as data existing data already known to the research community”. Dul and Hak (2008:280) define data collection as the process of “i) identifying and selecting one or more objects of measurement, ii) extracting evidence of the value of the relevant variable characteristics from these objects, and iii) recording this evidence”. Depending on the methods used, the data collection techniques can take one of two categories, namely quantitative research and qualitative research (Parveen & Showkat, 2017).

Ahmad et al. (2018:2829) describe quantitative and qualitative data collection methods as follows:

- a) Quantitative data collection methods via “surveys, experiments, semi-structured formal interviews, tests or questionnaires.”
- b) Qualitative data collection methods via “document collection, participant observation, informal interviews, field notes.”

Interviews were used in this research for its adaptability and for obtaining information not easily disclosed (Qu & Dumay, 2011). The data collection instrument for this research was a semi-structured interview guide (Appendix B) that contained open-ended questions around DT and the business processes for implementing a DT strategy, for the Ps to respond to. The

interviews were used to collect the primary data in this qualitative study. In a qualitative research study, the researcher is the main driving force behind collecting, analysing and interpreting data (Onwuegbuzie et al., 2010). According to Gill et al. (2008:292), “qualitative methods” such as interviews are more favourable than surveys to broaden comprehension. For this research, face-to-face interviews were conducted with the option of online interviews via computer-mediated communication (Zoom or Microsoft Teams) for the safety and convenience of the Ps. The Ps were contacted through contacts, emails and telephone calls. Owner Ps who agreed to participate were emailed the proposal and interview questions. The meeting was scheduled at a place, time and method convenient to the participant. A reminder was emailed to the participant a day before the interview, with the interview questions attached. The interview was recorded with the permission of the participant.

3.6.1 Sampling

Sampling is important for successful research activity, as it influences the outcome for the aim of the research. This research is to explore the requirements of DT that can assist SEs to implement a DT strategy to transform their business digitally. Sampling techniques can be divided into two categories: probability and non-probability. In probability sampling, each population member participates in the study (Taherdoost, 2016). Acharya et al. (2013:330) refer to probability sampling as the “gold standard” in the sampling method because it can be linked to survey and experiential research strategies (Saunders et al., 2007). This means that each participating object or person is selected from the same group which makes it a random sample (Sharma, 2017). Other types of probability sampling methods would be “systematic sampling”, “stratified sampling” and “cluster/area sampling” (Kothari, 2004:15). “In non-probability sampling, a sample group of members are selected non-randomly, meaning only certain members of the population have a chance to participate in the study” (Dudovskiy, 2011). The sample for this research was SEs. The researcher purposively selected 15 SEs from the population. The SEs were all in the DM industry as they were conveniently situated in the Cape Town central business district.

3.6.2 Permission

Prior to a study, researchers need to obtain the approval of individuals in authority (i.e., gatekeepers) to gain access to sites and to interview the Ps. This often involves writing a letter that specifies the extent of time, the potential impact, and the outcomes of the research (Creswell & Creswell, 2018). Obtaining permission from the Ps to conduct the research is a requirement of CPUT. The researcher sent invitations to the enterprises via email (Appendix A2), but most of the time physical visits to the enterprises were required. Follow-up telephonic calls were done before the interviews took place. The Ps were required to freely accept or agree to participate in the research by signing a consent letter before the interview (Appendix

A3). Only after signing the consent letters could the interviews commence. All the Ps have signed a letter of informed consent.

3.6.3 Interview processes

Interviews are used in research for their adaptability and for obtaining information that is not easily disclosed (Qu & Dumay, 2011). Mason (2002:62) identifies three types of qualitative interviews (in-depth or intensive, semi-structured, and loosely structured or unstructured) each typically involving an “interactional exchange of dialogue”, having a relatively informal style. Being “thematic, topic-centred, biographical or narrative” the purpose of the interview “is to ensure that the relevant contexts are brought into focus so that situated knowledge can be produced” (Mason, 2002:62). In this study, the data collection was done using a semi-structured questionnaire, guided by an interview guide using interviews. In all interviews, notes were taken and in some cases recorded by the researcher. The notes and records taken from the interviews were transcribed for further analysis. The interview presented itself as an appropriate choice for the data collection method in this qualitative research study, and respondents were required to openly express their opinions and understanding about DT and the factors influencing the adoption and implementation of a DT strategy.

3.7 Data analysis

Descriptive data analysis was used for this study to determine what the readiness is of the SEs to adopt a DT strategy. Loeb et al. (2017:1) define descriptive analysis as “data simplification” that answers the “who”, “what”, “when”, “where” and “to what extent” in the research. Descriptive analysis is ordinarily linked with qualitative research (Nassaji, 2015) and provides researchers with an outline of the Ps and organisation’s traits (Kothari, 2004). During the data analysis stage it is important that the researcher do not conduct “incorrect coding, careless tabulation, and faulty statistical calculation” as this could lead to errors in the results (Schindler, 2019). The interviews were recorded, transcribed and coded applying first cycle coding method labelling to the data (Saldaña, 2021). I then followed a second cycle of coding to group and summarise in initially first cycle codes together into groups of what “looks alike” and “feels alike” (Saldaña, 2021: 161). Themes were then constructed from the groups formalized from the second cycle coding which then became the themes for discussion. To ensure the integrity and validity of the data the transcribed interviews were email back to the various participants for accuracy validation.

3.8 Ethical considerations

Ethics is behavioural conduct that has developed over some time and is guided by the “value”, “needs” and “expectations” of those individuals who uphold it (Kumar, 2011:217). The research was conducted with organisations through human interaction. A letter of consent was obtained from the identified Ps. Through informed consent, the Ps acknowledged that they understand

what the study was about and what was expected from them. The researcher needs to ensure that the integrity, personal information of the Ps as well as data of the organisation are protected at all times. This was done through anonymising the identity and sensitive information of the Ps. Processing and protection of identity and sensitive information of Ps were done in line with the Protection of Personal Information (POPI) Act No. 4 of 2013 (Information Regulator South Africa, 2013) and the Constitution of the Republic of South Africa, Act 108 of 1996 (The Republic of South Africa, 1996). Processing of data was done accurately and truthfully. The confidentiality of the information was ensured by storing the Ps' data collected on a secured, encrypted device not connected to the Internet, as hacking may happen. Identifiable characteristics of the Ps that could place them at risk were not made known to the public. Ps had the option of choosing a location or method safe and private for them to conduct the interview. This was made known to each participant prior to scheduling the interview. Participation in the research was voluntary and Ps could withdraw from the research at any time during the research by informing the researcher of his/her withdrawal. The opportunity or option to withdraw from the research was made known to the researcher in the informed consent letter, and also before the start of the interview process.

According to Babbie (2001:470), the following “ethical issues” as shown in Table 3.1 should be taken into consideration when doing research:

Table 3.1: Ethical issues that need to be considered doing research (Babbie, 2001:470)

“Volunteering of participants”	“Participation is voluntary and participants are informed that no special reward can be expected” – such as payment bribes.
“No harm to participants”	“This concerns the revealing of information that would embarrass subjects or endanger their home life, friendship, jobs and so forth.”
“Anonymity and Confidentiality”	Anonymity – “When a researcher/reader cannot identify a given response”. Confidentiality – “When a researcher can identify a given person’s response but essentially promise not to do so publicly”.
“Deception”	“To conceal your identity or research study that is justified by compelling scientific or administrative concerns.”
“Analysis and Report”	“Researchers have an obligation to their colleagues in the scientific community. These obligations concern the analysis of data and the way results are reported.”

Ethics scrutinise and give a reason for all “right and wrong” during the research (Coffey, 2011). The informed consent is interpreted as the mechanism enabling research participants to have a clear understanding of what needs to be done and what is required of them. In this study, a letter of consent was presented to all the interview participants who had to accept participation by signing this letter (Appendix A3).

In this research, the interview questions were tested against compliance with the University's Ethics Committee, where a Certificate of Compliance was issued (Appendix A1). All the respondents and enterprises that accepted participation in the interviews were assured that all collected data would be presented anonymously, without disclosing the names of the individuals or organisations.

3.9 Summary

In this study, the researcher adopted a qualitative inductive approach, with the ontological philosophical stance being subjectivism and the epistemological philosophical stance being interpretivism. An exploratory multiple case study strategy was used.

To achieve the aims of the study, 15 SEs operating in Cape Town were purposively selected to be interviewed. Due to Covid-19, semi-structured virtual interviews via Zoom and Microsoft Teams were conducted with individuals in the selected enterprises that have responded to the invitation to participate in the research. The outcomes of the interviews were instrumentally used to narrow down the content of the questions by grouping related topics into themes. The 15 SEs with 15 interviewees (SE business owners) formed the units of analysis.

Permission to partake in the research was obtained from all the Ps, who signed a letter of consent before the interviews commenced. Research ethics as defined by Cape Peninsula University of Technology were taken into consideration and adhered to throughout the research process.

Chapter 4 presents the data analysis and findings of the research.

CHAPTER 4: DATA ANALYSIS AND FINDINGS

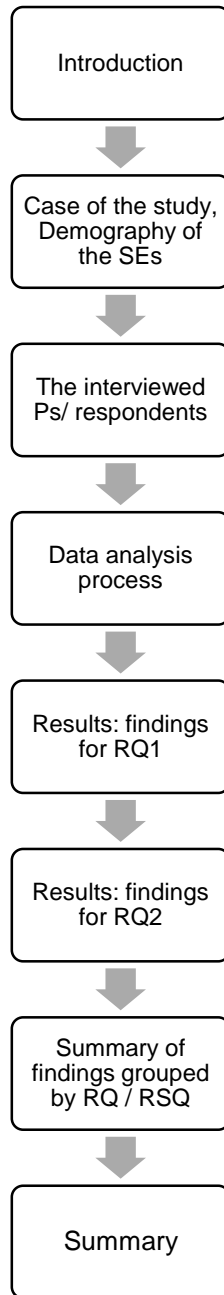


Figure 4.1: Layout of Chapter 4

4.1 Introduction

This chapter focuses on the analysis of the data acquired from the participants (Ps) and the presentation of these findings. The research was conducted in Cape Town, a city in the Western Cape Province of the Republic of South Africa. Fifteen (15) SEs were interviewed (section 4.3). The study aimed to explore factors that affect the adoption of DT strategies by SEs.

The objectives of the research were to: i) determine the reasons why SEs adopt or do not adopt DT; ii) determine the challenges SEs face to digitally transform; and iii) Determine the factors of a DT strategy that may assist SEs with implementing DT in the organisation.

A short description of the case is provided, followed by a description of the interviewee population, which is connected to the data analysis presentation of the research findings. The data analysis is based on the research problem presented. Two research questions (RQs) with two research sub-questions (RSQs) under each RQ were formulated for this research. These questions provided the direction for the data analysis to formulate answers from the findings. The findings were derived from analysing the interview feedback transcriptions, which are the original source documents. The data analysis was done within the framework of the theories that underpinned the research, where the findings had to be placed in the context of technology to be adopted in the organisations' environment. It was important to analyse the study results by mapping them to the Diffusion of Innovation (DOI) theory, which required the acceptance and readiness for adoption by enterprises. Linking the study results and the underpinning research theories led to strong and rich findings.

4.2 Case and demography of the SEs in the study

The research was conducted with fifteen (15) SEs in Cape Town and surrounding areas, which formed the units of analysis of the study. Interviews were administered to SE owners, managing directors and chief executive officers, who comprised the units of observation (Chapter 3; section 3.5.5). The participating enterprises operate in different areas of the City of Cape Town and suburbs, namely the Southern and Northern suburbs, West Coast, and the Helderberg and Cape Flats areas.

Table 4.1 presents the SEs, industry involved in, years in business, if the SE is owner-managed, and the number of employees. Next, the brief profiles of the enterprises that took

Enterprise	Owner/ Manager Yes/No	Industry	Number of years/ months in business	Number of employees
A	Yes	DM	2 years	5
B	Yes	DM	3 years	2
C	Yes	DM	9 months	1
D	Yes	DM	7 years	5
E	Yes	DM	11 years	2
F	Yes	DM	3 years	2
G	Yes	DM	12 years	4
H	Yes	DM	2 years	1
I	Yes	DM	13 years	1
J	Yes	DM	4 months	1
K	Yes	DM	14 years	7
L	Yes	DM	5 years	15
M	Yes	DM	3 years	8
N	Yes	DM	4 months	2
O	Yes	DM	5 years	1

part in the research are presented. All 15 SEs are owner-managed and the number of employees within the SEs ranges from 1, where the owner is the only employee, to 15 employees, including the owner acting in a managing director (MD) capacity.

Of the 15 SEs that participated in the research, the youngest enterprise was four months in business and the oldest enterprise 15 years. The names of the enterprises were omitted for the sake of privacy and replaced by letters in alphabetical order. The number of years each enterprise has been in business, whether owner-managed or not, the number of employees in each enterprise, and the type of business are presented below:

Table 4.1: SEs, the industry involved in, years in business, if the SE is owner-managed, and number of employees

Enterprise	Owner/ Manager Yes/No	Industry	Number of years/ months in business	Number of employees
A	Yes	DM	2 years	5
B	Yes	DM	3 years	2
C	Yes	DM	9 months	1
D	Yes	DM	7 years	5
E	Yes	DM	11 years	2
F	Yes	DM	3 years	2
G	Yes	DM	12 years	4
H	Yes	DM	2 years	1
I	Yes	DM	13 years	1
J	Yes	DM	4 months	1
K	Yes	DM	14 years	7
L	Yes	DM	5 years	15
M	Yes	DM	3 years	8
N	Yes	DM	4 months	2
O	Yes	DM	5 years	1

Figure 4.2 shows the geographical locations of the enterprises that participated in the research. The areas circled in green on the map are the localities where the interviewed enterprises operate.

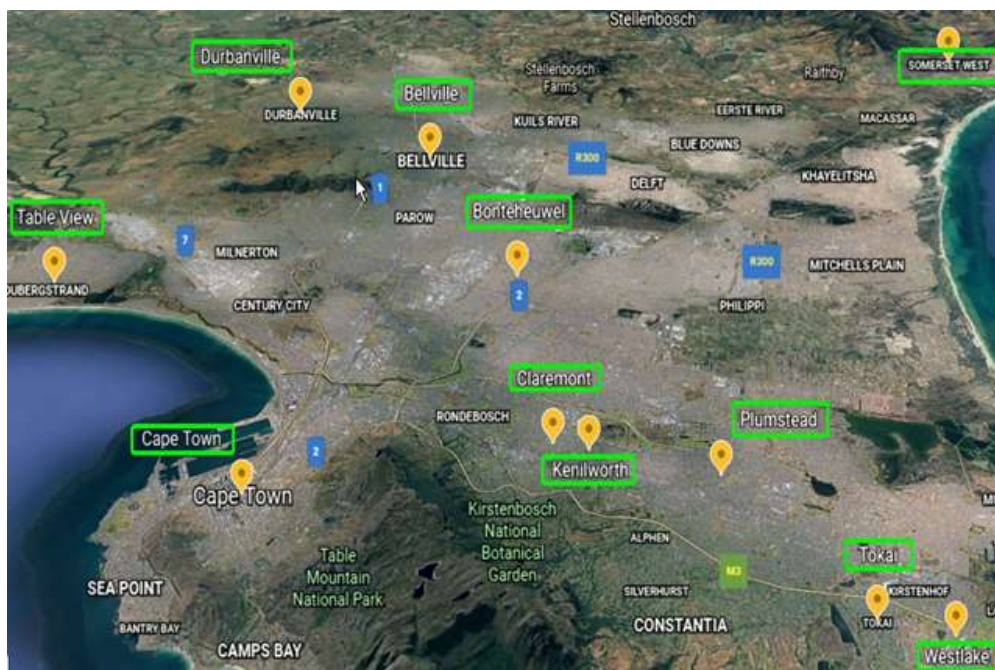


Figure 4.2: Geographical locations of the participants

4.3 The participants

Fifteen Ps were interviewed, with 11 confirming that their enterprise does have a DT strategy and the remainder four Ps stating that their enterprise does not have a DT strategy. From the 11 Ps who indicated their enterprise has a DT strategy, three have a formal DT strategy and the remaining eight have informal DT strategies. Among the Ps in the study, nine are business owners, three are managing directors, two directors and one chief executive officer.

The profiles of the research Ps are presented in Table 4.2, which also shows the Ps' position in the enterprise, industry in which the business functions, geographical location, whether DT strategies have been adopted, and whether these are formal or informal DT strategies. For reasons of confidentiality, the names of the Ps and the enterprises are not revealed. Codes have been used to refer to the Ps.

Table 4.2: Profiles of interviewed Ps

Participants	Position/ Role in enterprise	Industry	Area (geographical location)	DT strategy - Yes or No	DT strategy - If yes, formal or informal
P1	Owner/Executive Manager	DM	Claremont/Southern Suburb	Yes	Formal
P2	Owner	DM	Bonteheuwel/Cape Flats	No	
P3	Owner	DM	Kenilworth/Southern Suburbs	Yes	Informal
P4	Managing Director	DM	Table View/Western Suburbs	Yes	Informal
P5	Director	DM	Plumstead/Southern Suburbs	No	
P6	Director	DM	Westlake/Southern Suburbs	Yes	Informal
P7	Owner	DM	Bellville/Northern Suburbs	Yes	Formal
P8	Owner	DM	Cape Town/City Bowl	Yes	Informal
P9	Owner	DM	Durbanville/Northern Suburbs	Yes	Informal
P10	Owner	DM	Brackenfell/Northern Suburbs	No	
P11	Managing Director	DM	Durbanville/Northern Suburbs	No	
P12	Managing Director	DM	Cape Town	Yes	Formal
P13	Owner	DM	Somerset West/Helderberg	Yes	Informal
P14	Chief Executive Officer	DM	Tokai/Southern Suburbs	Yes	Informal
P15	Owner	DM	Durbanville/Northern Suburbs	Yes	Informal

4.4 Data analysis process

To arrive at the analysis, semi-structured interviews were conducted with Ps from the non-random, conveniently selected SEs that accepted the invitation to participate in the research. The interview questions (IQs) (Appendix B) were derived from the RQs and RSQs formulated in Chapter 1 (section 1.6; Table 1.1).

Table 4.3: Research questions, objective and methodology

RQ1: What are the business processes required for SEs to digitally transform their business?		
RSQs	Objective	Methodology
RSQ 1.1: What are the benefits and characteristics of DT?	To determine the awareness, characteristics and benefits for SEs to digitally transform.	Interview Semi-structured questionnaire
RSQ 1.2: What are the business challenges for SEs to digitally transform?	To determine the challenges for SEs to digitally transform.	Interview Semi-structured questionnaire
RQ2: How can SEs efficiently organise, support and enable a DT strategy?		
RSQs	Objective	Methodology
RSQ 2.1: What are the factors influencing the formulation, adoption and implementation of a DT strategy?	To determine the influences that will lead to the decision to implement a DT strategy.	Interview Semi-structured questionnaire
RSQ 2.2: What are the digital opportunities for SEs to adopt and implement a DT strategy?	To determine the opportunities for adopting and implementing a DT strategy.	Interview Semi-structured questionnaire

4.4.1 Interview process, transcriptions and coding

4.4.1.1 Transcription

The researcher commenced each interview with an introduction, expressing the purpose of the interview and the context surrounding it. The participant was then asked if he/she accepted voluntarily to be part of the research, where after the letter of consent (Appendix A3) was presented for signing. The acceptance and signing of the consent letter allowed the researcher to continue with the actual interview research questions.

All 15 interviews were recorded with the Ps' permission, and transcribed and returned to the specific owner of the transcript for validation. Once validated, the transcripts were analysed. Figure 4.3 is an example of a transcript.

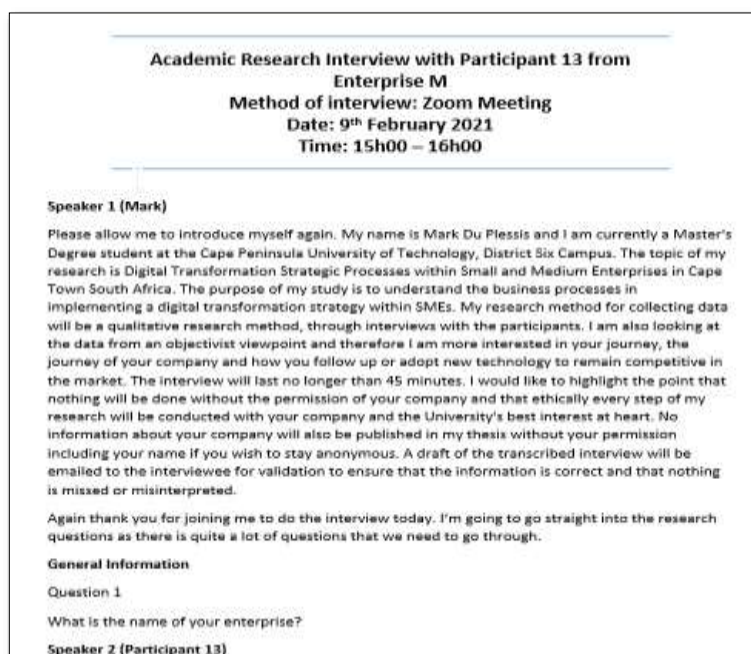


Figure 4.3 Example of a transcript interview

4.4.1.2 The analysis

General questions were asked first to gain a thorough understanding of each P's profile as indicated in Table 4.4 and the selected enterprises in general.

Table 4.4: General interview questions

Question No.	General Question
1	Name of the organisation?
2	Size of the organisation?
3	What is the nature of the business of your enterprise?
4	What industry are you in?
5	What function/position do you hold in the organisation?
6	What is the geographical location of your organisation?

4.4.1.3 General questions

These questions focused on:

- a) Identifying the number of full-time employees in the enterprise
- b) The nature of the business and the industry in which the enterprise conducts business
- c) The function or position held by the respondent in the enterprise
- d) The geographical location of the enterprise's operations

Based on the responses received from the Ps on the general questions, the following observations were made:

- a) DM agencies do not require a big component of human resources based on the permanent employees, because employee needs and skills requirements are project selective. This has both positives and negatives, with the positive that the enterprise saves on staff costs and either outsources specialised functions or hires workers on a contract basis for the specific project needs. The negative impact may be that the skills required may not readily be available in the market, which could result in higher charges from outsourcing companies or higher salary demands during the negotiation stage.
- b) The umbrella of the DM sector is large and spans across all other sectors, which makes it a high in demand skill and service, especially during Covid-19 that accelerated DT and forced many organisations to find alternative ways to service the needs of their clients. Some of the Ps indicated that they have clients in the nuts and chocolate business, safety gate business, and cosmetic business, to name a few. The positives are that the DM sector allows for versatility and is not confined to one specific customer type or sector. The negative impact may be that not every company can do DT and customers may have unrealistic expectations.
- c) DM, as many other SEs, requires that the owner wear many different hats in the organisation, so whilst they have the title of Managing Director or Chief Executive Officer, for example, their daily duties expand far beyond their title. The positive is that staff costs are low if the owner has the skills and ability to perform many of the daily operational tasks. The negative is that it can become overwhelming for one person, which can lead to negligence of certain duties. This was evident with many of the Ps admitting that they are better at doing DM for the clients than for their own enterprise.
- d) Some Ps indicated that they rent office space for their SEs, some run their business from home, and some were running hybrid (working from both home and office) long before Covid-19. The Ps also indicated that with DM they are not confined to their office space or location because they are born-digital, meaning software such as cloud computing and cloud storage is part of their DNA, thereby making it possible for DM agencies to recruit the best skills from anywhere in the world and on-board, and retain more international clients from anywhere in the world. The positives are that DM is not only confined to South African clients and skill sets as DM agencies indicated that they have gained more international clients during Covid-19 and collaborated with more international skill sets. The exchange rate of the South African Rand makes the South African DM sector very attractive for international clients. The negative is that international skills might be more costly due to the weaker Rand and the international client time zone is different to the South African time zone, which could mean that meetings will be held at irregular hours.

The general questions permitted for effortless transition to the main interview questions, focusing on the characteristics of DT and the factors influencing the adoption of a DT strategy. This guided the researcher to understand from which perspective the Ps were likely to answer the questions and helped tailor the sub-questions to obtain more meaningful and informative responses.

4.4.1.4 The interview

Key concepts in the interviews were coded as shown in Table 4.5. Once the key concepts were coded, similar codes were grouped for further analysis. The grouped categories were determined, and the themes were developed by integrating the same and similar categories (Table 4.7).

4.4.2 Key concepts, associated codes and relationships

The related codes were grouped by analysing and grouping the transcribed data grouped. Nine (9) key concepts were identified from these groupings. The codes and key concepts are directly related and hold specific information of the answers provided by the Ps. Table 4.5 shows the identified key concepts, associated codes, and their relationships.

Table 4.5: Key concepts, associate codes and relationships for analysis

No.	Key concept	Code	Short description
1	Understanding the concept of DT	U1	Having a clear understanding of DT
		U2	Clearly differentiate between digitisation and digitalisation
2	Factors influencing the decision to implement DT	FI1	Determining factors influencing the implementation of DT
		FI2	Determine the level of importance of DT
		FI3	The impact of DT on the enterprise holistically
		FI4	Finance as a deciding factor
		FI5	Availability and integration of technologies to migrate online
3	Perceived benefits of DT	B1	Benefits of implementing a DT/competitive advantage
		B2	Benefits of integrating new digital technology/ scalability of cloud computing
		B3	The financial impact of DT/ reduction in operational costs
		B4	Optimisation of processes/ streamlining processes/ efficiency
		B5	Ability to analyse data to make informed decisions
4	Perceived challenges of DT	C1	Challenges of implementing a DT experienced by SEs
5	Adoption factors of new technology	AF1	Determining factors influencing the choice of new technology
		AF2	The financial impact on technology selection
		AF3	Integration ability of technology
		AF4	Agility and flexibility to follow new technology trends

No.	Key concept	Code	Short description
6	Understanding the concept of DT Strategy	U3	Having a clear understanding of DT strategy
7	Adoption factors of a DT strategy	AF5	Determining factors influencing the decision to adopt a DT strategy
		AF6	The financial impact of a DT strategy
		AF7	Having the ability to formulate and implement a DT strategy
		AF8	Availability of technologies to automate processes and collect data
8	Perceived benefits of a DT strategy	B6	Benefits of implementing a DT strategy
		B7	Service and process improvement
		B8	Time efficiency
		B9	Foster an innovative organisational culture
9	Data security and recovery	AF9	Storing, processing and retrieving of data for data analysis

*AF=Adoption Factor

4.4.3 Categories based on key concepts and associated codes

In addition to grouping the related codes together and identifying nine (9) key concepts, these codes and concepts were mapped to the RQs, RSQs and IQs. Table 4.6 presents an extract of the key concepts derived from the interviews, associated codes, research question addressed for each key concept, and a brief description of each key concept.

Table 4.6: Extract of key concepts and associated codes mapped to research questions

RQ, RSQ and IQ	Code	Description	Explanation
	P1		
RQ1: What are the business processes required for SEs to digitally transform their business?	U1	Understanding of DT concept	It's moving your paper-based business to a computer-based business. Further, moving your meetings or your communication to online, and that is how you start keeping your documents online, you start to use cloud for sharing your documents.
	P3		
RSQ 1.1: What are the benefits and characteristics of DT?	B1	Perceived benefit of DT	DT transforms and enhances the customer experience. Drives data-based insights. Encourages collaboration across the organisation's departments. Increases agility and innovation. Updates skillsets and knowledge of employees. Allows organisations to foster a digital culture. Assists with the consolidation of processes and operations within an organisation.

RQ, RSQ and IQ	Code	Description	Explanation
			P11
IQ 1.1.1: What does DT mean to you?	U1	Understanding of DT concept	DT, I think what it means to me is acknowledging how businesses changed. Everything is moving digital whether it be cloud-based security, whether it be cloud-based communications and whether it be data tools to improve the process is everything in business is digital.

*RQ – research question; RSQ – research sub-question; IQ – interview question

4.5 Findings, categorisation and themes

After having analysed all the interview answers provided by the Ps, a total of 73 findings were derived (Table 4.15: Research findings summary (all questions))

Through analytical classification, the summarised findings were then classified into eleven (11) meaningful categories, which were further analysed, resulting in seven (7) themes as shown in Table 4.7.

Table 4.7: Categories and themes

Finding categories	Themes
Financial aspects	The financial aspects of DT
Informed decision-making process	The role of leadership decision making in the implementation of DT
Integration of new technology	The influence of digital technologies
Knowledge and skills barrier	The role of leadership decision making in the implementation of DT
Perceived benefit of DT	DM transformation as a tool for value creation in DT
Process automation	Business Process Automation (BPA) in support of DT
Risk mitigation and control measures	Risk management in DT
Strategic planning process	The role of leadership decision making in the implementation of DT
The optimisation of operational processes	Business Process Management and implementing a DT
Understanding of concepts	Business Process Management and implementing a DT
Factors influencing the implementation of DT and DT strategy	Business Process Management and implementing a DT

Table 4.8 shows the finding category counts per theme. The seven themes identified are presented together with the number of occurrences of each category per theme.

Table 4.8: Finding category counts per theme

Themes	Category count
The financial aspects of DT	13
The role of leadership decision making in the implementation of DT	24
The influence of digital technologies	7
DM transformation as a tool for value creation in DT	7
Business Process Automation (BPA) in support of DT	5
Risk management in DT	3
Business Process Management (BPM) and implementing a DT	14

4.5.1 Interview findings from Ps responses

The Ps discussed their understanding and stances on DT in terms of the characteristics, benefits, and challenges that could assist their enterprises with the formulation, adoption and implementation of a DT strategy. Each interview started with the question of knowing whether the participant is aware of DT. The intention was to determine whether the participant has a basic understanding of the process.

4.5.1.1 Findings for RQ1

RQ1: What are the business processes required for SEs to digitally transform their business?

RSQ 1.1: What are the benefits and characteristics of DT?

IQ 1.1.1: What does DT mean to you?

This question was asked to determine the general awareness of DT in SEs. This question allowed the Ps to express themselves on the topic, indicating whether they know about DT and what meaning they associate with DT in a general sense.

All the Ps confirmed that they are aware of DT. P1, P2 and P10 associated DT with the digitisation of manual processes to digital processes or from physical stores to e-commerce. Ps (3, 4, 5, 6, 7, 8, 9, 11, 12, 13, 14, 15) associated DT with the digitalisation of business processes through the usage of technology. This is shown in the responses from P5, P12 and P14.

P5 indicated that, "I think we look at it as replacing old systems and processes with online alternatives" (Appendix C5).

P12 argued, "So simply put it's the adoption of an integration of technologies that allow ongoing competitiveness to occur" (Appendix C12).

P14 stated, “To me, it will be basically digitalised or digitally creating or even modifying processes to meet businesses and marketing requirements such as how a business delivers value to his customer or even from taking paperwork and then moving it over into online that's my understanding” (Appendix C14).

Finding 1: DT enables SEs to compete with larger corporates in the market

Finding 2: SEs lack an understanding of the difference between digitisation and digitalisation

IQ 1.1.2: Do you believe DT is important to SEs? If yes, why? If no, why not?

This question was asked to understand the importance of DT for SEs. SEs constantly have to find innovative and creative ways to remain relevant and to compete in the market. To achieve this, SEs—whether traditional or born-digital—have to resort to transforming parts or their entire business model through DT on an ongoing basis. The daily business operations of organisations have become highly dependent and driven by technology in order to meet the constantly changing customer needs and maintain a low operational cost.

All Ps shared that DT is important for SEs to become sustainable, increase their client base, reduce costs, and survive against competitors. P3 stated that DT is extremely vital to SEs and all businesses, regardless of size. It is more important than ever to stay competitive and relevant in the digital world because DT is focused on creating a new way of business. It is about giving employees the answer and empowering them to make good decisions. Technology can crunch the numbers, do it quickly, and free up SEs, giving them the time they need to make better business decisions. P4 and P7 added to this by stating that DT is important as it allows SEs to increase their client acquisition, increase sales and increase overall budgeted revenue.

P3 clearly stated:

“Yes! I do believe DT is extremely vital to SEs and all businesses, regardless of size. It's more important than ever to stay competitive and relevant in the digital world. Because DT is focused on creating a new way of business. It's about giving employees the answer and empowering them to make good decisions. Technology can crunch the numbers, do it quickly, and free up SEs, giving them the time, they need to make better business decisions” (Appendix C3).

P8 and P11 mentioned that DT levels the playing field for SEs to now compete with the “bigger guys” on the online platforms and to better the ROI. P13 further added that DT is important for SEs because it opens up business opportunities that the SEs might not have had. Firstly, if they are not using the space, they cannot connect with more people more broadly, and

secondly, if they are not visible in the digital space it can severely hurt their business. They clarified that DT is a key factor for SEs assist them in becoming more competitive through technology.

P11 said:

“Definitely, I think it's more important for the small enterprises because it levels the playing fields a bit. It gives a small enterprise a chance to perform you know on a similar level to a bigger company you know you can come across as a very professional outfit if you're making use of automated email responses and tools and data to ensure that your messaging on your website and your messaging with your clients remains appropriate um so yes I think that it's crucial” (Appendix C11).

Finding 3: DT is important for SEs if they want to remain relevant and competitive in their market

Finding 4: SEs see DT as an important tool to compete with larger corporates in the market

IQ 1.1.3: What opportunities have your business pursued in DT?

This question was asked to determine who of the Ps pursued any DT business opportunities since their establishment. DT opportunities present in various forms and stages depending on the need of the organisation. DT transformation often occurs when a market disruptor threatens to disrupt the business model of an organisation.

Fourteen of the 15 Ps embarked on some form of DT journey in their enterprise. Only P5 had a different journey. P5 stated that “digital was always part of the enterprise”, so they did not consider it as DT. P2 has not yet embarked on any form of DT besides downloading software to help with quotations. Ps (1, 3, 4, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15) confirmed that they transformed some aspects of the enterprise. Ps (1, 5, 7, 10, 13) believe they do not need to digitally transform as digital was always part of the enterprise. P2 has yet to do any type of DT in the enterprise. Ps (3, 4, 6, 9, 11, 14, 15) mentioned that they have automated manual processes in their enterprise as part of the DT journey. P1 and P8 stated that they have used search engine optimisation (SEO) to digitally transform their business, create a better online presence, and grow their client base.

P6 indicated that their SE pursued the following digital opportunity: “Well I'm in DM so it is all digital but even in how we do things we will use programs to automatically schedule the posts. You don't go in every day you post it and you use some kind of scheduling app to do it for you otherwise you'd have people watching and looking out but you use bots and you use schedulers and that's basically how it works” (Appendix C6). Opportunities such as

streamlining administration, and communication improvement (P4), online marketing (P8), and product development and research and development (P12) were mentioned.

Finding 5: New technology improves SEs' business process and decision ability

Finding 6: DT is used to improve customer relations, CRM, CMS and optimise Web applications

Finding 7: DT requires constant research on new market trends to meet customer needs

IQ 1.1.4: What are the benefits of undergoing a DT?

This question was asked to understand what benefits the enterprises gained from the DT journey.

P1 mentioned an increase in revenue after doing the SEO. P2 added that the software installed for invoicing saved time, thereby making the SE more effective and efficient, which in turn saved money. Ps (3, 4, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15) indicated some of the benefits gained from DT as enhanced customer experience through better response times, better online presence, cost-efficiency, better ROI, data-based insights of business and client needs, collaborations across the organisation's departments, increase in agility and innovation, updated skillsets and knowledge of employees, it foster a digital culture and it assists with the consolidation of processes and operations within an organisation. According to P5, DT allowed the SE to remain relevant with a smaller staff turnover. P2 and P15 stated the following benefits of undergoing a DT: "Definitely, time because now I need to focus less on actually putting on my laptop doing an invoice I can just do everything from my phone so it saves me time to save me data and which is, in turn, saves me money". (Appendix C2). P15 argued, "I think to free up your time that is one and the other one is to if you go digital it allows you to grow exponentially" (Appendix C15).

P12 said:

"We do quite a bit of research as to how products are evolving, we conduct these primary and secondary research approaches where we understand our clients' needs but also keeping a pulse on the market in terms of what's happening in other geographic locations and assessing their needs and companies alike. In the R&D (Research and Development) cycle we then establish the needs of our audience's or customers that then allows us to either continue funding certain services of innovation into digitisation or discarding it so this is a definite connection between supply and demand of digital and innovation as well" (Appendix C12).

Finding 8: The benefits of DT depend on the reason for the SE embarking on the journey to DT; some SEs have seen better time efficiency, reduction in costs and enhanced customer experience

Finding 9: DT creates an even playing field in a cost effective manner for all businesses, whether big or small

IQ 1.1.5: How does the company use the following digital technologies? A) Mobile computing (e.g. mobile apps, tablets, smartphones) B) (Big) Data/Analytics (e.g. analysing/leveraging data, digitalisation of physical assets) C) Social media/social networks (e.g. for marketing, contact with customers) D) Internet/networks (e.g. website, e-commerce, cloud computing)

i) Mobile computing (e.g., mobile apps, tablets, smartphones)

P3 said they spend the majority of their time on an iPhone and Microsoft Surface Pro creating and scheduling content, hosting virtual meetings and live broadcasts for their customers. Ps (4, 5, 7, 11, 12, 13, 14) stated that they use mobile computing extensively for the daily operations of their enterprise and to deliver services to their clients.

Finding 10: Mobile computing allows SEs the convenience to service their clients at anytime from anywhere from the palm of their hand and at the click of a button

Finding 11: Mobile computing provides a more cost-effective way to service clients

ii) (Big) Data/Analytics (e.g., analysing/leveraging data, digitalisation of physical assets)

P3 mentioned that their SE uses many data analysis and dash boarding tools to analyse the DM of their clients and followers, but did not elaborate on what specific tools they utilise. P4 added that they have to deal with a lot of analysing data and optimising their clients' campaigns to ensure that their clients' businesses are running smoothly. Ps (6, 10, 11, 12, 13) mentioned that they use Google Analytics to perform their data analysis. Ps (5, 7, 8, 9, 14, 15) said they do use data analytics for decision making but did not elaborate on which data analytics tools they use. P6 mentioned, "So we use CLEAR to run the reports on Google Analytics and Facebook analytics just to make sure you know that what you're putting in you can see what the trends are" (Appendix C6). P10 stated, "I do not use Google Analytics, but I do use analytics from the social media platforms like Facebook and LinkedIn. I'll report at the end of each month to see how much audience I attracted, how many views we had" (Appendix C10).

Finding 12: Data analytics technology is a vital tool for SEs to operate their business daily

Finding 13: Most SEs use Google Analytics as an option to assist with analysing information and making decisions

iii) Social media/social networks (e.g. for marketing, contact with customers)

Ps (2, 3, 4, 5, 6, 7, 9, 10, 11, 12, 13, 14, 15) mentioned that they use social media (Facebook, Instagram, LinkedIn, WhatsApp, Twitter, TikTok, Pinterest, YouTube) for the daily marketing and advertisement to reach customers in a more cost-effective way. P8 said s/he does not make use of social media as their enterprise has a CRM system called Hubspot to run their campaigns. P12 further indicated that when the business started, they used a lot of free media such as Facebook, Instagram and LinkedIn, etc., but as the enterprise grew they also started investing in paid media which gave them access to more data and clients.

Finding 14: Social media has become a more cost-effective way for SEs to market a business and increase their customer reach.

iv) Internet/Networks (e.g., website, e-commerce, cloud computing)

Ps (2, 3, 7, 13, 15) said they make use of websites and cloud computing through Google Drive. Ps (2, 3, 4, 7) further explained that they use additional cloud storage servers such as Mega cloud, Digital ocean, Dropbox and OneDrive for storage of their information. Ps (5, 6, 8, 11, 12, 14) mentioned that they use cloud storage, but did not elaborate on which cloud storage they make use of in particular. P10 did not mention cloud storage or websites. P8 and P9 indicated that they make use of WordPress websites as it is more convenient. P7 and P12 developed and build their own websites for their enterprises and for their clients.

Finding 15: SEs prefer to use cloud storage to store their data

Finding 16: Websites are still popularly used by SEs to advertise their business

IQ 1.1.6: When did you start using this technology?

This question was asked to determine when the digital technologies mentioned in IQ 1.1.5 were incorporated into the enterprise.

All Ps started using digital technologies from the inception of their enterprise, since they are all born-digital enterprises. Some technologies were however also incorporated later into their enterprise. P2 used MEGA cloud storage a year after inception, and two years later they added Google Drive. P9 started using Tag management seven years after inception of the enterprise. P11 introduced new technologies into the enterprise between 2010 and 2020, two years after the birth of the enterprise. P12 started incorporating new technologies three years after inception of the enterprise. P1 mentioned, "Well some of them after first months. Some start

from the beginning like analytics stuff we started using it after one month for SEO engineering” (Appendix C1).

P11 mentioned the following on when they started using certain technologies:

“I guess because of the nature of our business we've been using some of these tools since [the] mid-2000s (2007 to 2008), I started making use of some of these tools and mostly between 2010 and 2020 and you know obviously as time rolls on the more and more data tools are created for us to use and fortunately my business partner is a little obsessed with the process of testing out tools and systems and finding ways to integrate them so it does help” (Appendix C11).

P13 said:

“I think that's easier because being digital marketers we've always used certain of those from the inception of the business but when I started employing a team I then went over to cloud storage because then any documents were available to all of us at any point in time versus trying to maybe try to get something out of someone while they're in a meeting or not enough for whatever reason” (Appendix C13).

Finding 17: Cloud storage is one of the latest technologies that SEs added to their enterprise

Finding 18: Born-digital SEs are more aware of technology options available and implemented them as part of the business when it started

IQ 1.1.7: What was it like before this technology was implemented?

This question was asked to obtain a general feeling of what difference these digital technologies brought about to the SEs and what it was like for their enterprise before the implementation of the technologies.

P1 mentioned that before their analytic technology they would go out to meet potential clients face-to-face, find out how these potential clients are currently doing in their business, and offer them better solutions to gain more clients for their business. P2 used flash drives, external hard drives and a laptop as storage for client data before switching over to cloud storage, which is safer, to avoid being hacked again. P8 stated that before implementing Get Responsive—a CRM system—into the SE, the process was very manual, but the CRM system automated the process from enquiry to onboarding the client. P9 added that before Google Tag Manager they would use Facebook ads and Google ads for advertisements. They could however not use the systems together due to JavaScript codes clashing; Google Tag Manager enables them to run everything together without any clashes.

P11 went from manual filing storage to paperless because of cloud storage, which also created streamlined processes since most of their employees are not in the same location but they can still work on one document online. P12 mentioned that, “after developing their own system and started using the programs, their processes were streamlined and made the world of difference for accessibility” (Appendix C12). Ps (3, 4, 5, 6, 7) could not answer the question because they do not know what it was like before implementation as these technologies were part of the enterprise since the start of its existence.

P2 said,

“I was just using a flash drive or a hard drive and then my hard drive fell and it broke. I couldn't access anything and I had to start over again and that's how I learned that using those kinds of devices are okay for temporary stuff but not for stuff that you would need to store long-term and so I found that the cloud was way better for that” (Appendix C2).

Finding 19: SEs indicated an improvement in their processes, making it more streamlined

IQ 1.1.8: Why do your company use this technology? (Do your company take advantage of digital technology e.g. increase customer satisfaction, reduce costs)?

This question was asked to understand more why the SEs went with a particular technology.

Ps (1, 2, 3, 4, 5, 7, 8, 9, 10, 11, 13, 14, 15) all stated that time efficiency and cost-effective are vital for them when implementing any new technology. Cloud storage allows for scalability, which means only paying for the amount of storage used, and this leads to a reduction in costs that SEs take advantage of. P12 mentioned that “data became a valuable asset for their company and developing their own system meant that they had control over the storage of their clients' information and could be more compliant in terms of the protection of personal information act (POPIA) as well easy access to it which contributed towards their efficiency” (Appendix C12). P1 said, “Time efficiency. It's so much easier to figure out if it is needed through Google Analytics. If no people search about it there is no point” (Appendix C1). P2 mentioned, “To reduce costs definitely and just for safety. For Xero (Cloud storage software) also to reduce costs” (Appendix C2).

Finding 20: Time efficiency and cost-effectiveness were two of the key factors for implementing the new technology

Finding 21: Data are a valuable commodity for SEs to increase their productivity and revenue

Finding 22: There is a need for SEs to ensure that customer information is protected when incorporating new technologies

The 22 findings for RSQ 1.1 are presented In Table 4.9.

Table 4.9: Summarised findings for RSQ 1.1

No.	Finding	Category	Theme
1	DT means something different to each P based on the phase of their business	Understanding of concepts	Business Process Management and the implementation of DT
2	SEs lack an understanding of the difference between digitisation and digitalisation	Process automation	Business Process Automation (BPA) in support of DT
3	DT is important for SEs if they want to remain relevant and competitive in their market.	Perceived benefit of DT	DM transformation as a tool for value creation in DT
4	DT enables SEs to compete with larger corporates in the market.	Perceived benefit of DT	DM transformation as a tool for value creation in DT
5	New technology improves SEs' business process and decision ability	The optimisation of operational processes	Business Process Management and the implementation of DT
6	DT is used to improve customer relations, CRM, CMS and optimise Web applications	Process automation	Business Process Automation (BPA) in support of DT
7	DT requires constant research on new market trends to meet customer needs	Informed decision making process	The role of leadership decision making in the implementation of DT
8	The benefits of DT depend on the reason for the SE embarking on the journey to DT. Some SEs have seen better time efficiency, reduction in costs and enhanced customer experience	Perceived benefit of DT	DM transformation as a tool for value creation in DT
9	DT creates an even playing field in a cost effective manner for all businesses, whether big or small	Perceived benefit of DT	DM transformation as a tool for value creation in DT
10	Mobile computing allows SEs the convenience to service their clients at anytime from anywhere from the palm of their hand and at the click of a button	Integration of new technology	The influence of digital technologies
11	Mobile computing provides a more cost-effective way to service clients	Financial aspects	The financial aspects of DT
12	Data Analytics technology is a vital tool for SEs to operate their business daily.	Informed decision making process	The role of leadership decision making in the implementation of DT
13	Most SEs use Google Analytics as an option to assist with analysing information and making decisions.	Informed decision making process	The role of leadership decision making in the implementation of DT

No.	Finding	Category	Theme
14	Social media has become a more cost-effective way for SEs to market a business and increase their customer reach	Financial aspects	The financial aspects of DT
15	SEs prefer to use cloud storage to store their data.	Integration of new technology	The influence of digital technologies
16	Websites are still popularly used by SEs to advertise their business	Financial aspects	The financial aspects of DT
17	Cloud storage is one of the latest technologies that SEs added to their enterprise.	Financial aspects	The financial aspects of DT
18	Born-digital SEs are more aware of technology options available and implemented them as part of the business when it started	Integration of new technology	The influence of digital technologies
19	SEs indicated an improvement in their processes, making it more streamlined	Process automation	Business Process Automation (BPA) in support of DT
20	Time efficiency and cost-effectiveness were two of the key factors for implementing the new technology	Factors influencing the implementation of DT and DT Strategy	Business Process Management and the implementation of DT
21	Data are a valuable commodity for SEs to increase their productivity and revenue	Factors influencing the implementation of DT	Business Process Management and the implementation of DT
22	There is a need for SEs to ensure that customer information is protected when incorporating new technologies	Financial aspects	The financial aspects of DT

RSQ 1.2: What are the business challenges for SEs to digitally transform?

IQ 1.2.1: What historic/current challenges exist when undergoing a DT?

This question was asked to gain an understanding of the SE challenges SEs when undergoing a DT.

Findings show that a big challenge for SEs is the lack of understanding the benefits of DT. The findings further show that challenges related to DT for SEs can be linked to financial resources such as costs, lack of finance, and insufficient support from government and financial institutions. P3 stated, "It is seldom about the availability of technology, majority of the challenges are internal factors such as employee pushback, lack of expertise to lead digitisation initiatives, organisational structure, lack of strategy and limited budget" (Appendix C3).

The availability of technology is seldom the challenge. The majority of challenges are internal factors such as i) time to learn new programs, ii) employee pushback, iii) resistance to change due to the fear of job losses, iv) lack of expertise to lead digitisation initiatives, v) organisational structure, vi) lack of strategy, and vii) limited budget. The challenges related to time is as follows: i) if you do not optimise your time, it means you must hire employees to achieve the organisation's goals, and ii) if the technology is not implemented timeously, operational costs increase.

P4 argued that, "Maybe just to circle back it's a time thing. It's all about optimising time and seeing where we can do the work that's important to us and I think a lot of it does help with increasing customer satisfaction as well and reducing costs because if we didn't use these systems we'd have to hire people to do that and it would cost us much more" (Appendix C4). This is attributed to findings showing that taking shortcuts and going for less expensive alternatives can become challenging in DT. There is an overall need to understand why an SE needs to transform to remain relevant. This can become challenging if the SE is not technologically orientated, and as a result cannot envision the benefits of technology.

As P10 said, "Yes, definitely like older generations a lot of them are reluctant to even try it. I know in our company they used to always go, but we always used to do it like this and then we say but we can't always do it as we did it in 1920" (Appendix C10).

Finding 23: There is a lack of understanding of the benefits of DT

Finding 24: There is a lack of experience to lead and implement DT successfully

Finding 25: There is a lack of financial resources for DT and employee resistance to DT

Finding 26: SEs often attempt to take shortcuts and less expensive alternative routes to DT

IQ 1.2.2: Which organisational strategies are used to overcome challenges and to create value with DT?

This question was asked to determine what strategies the Ps used to overcome the challenges to DT.

SEs applied strategies in their own unique way to overcome challenges. These strategies however are very informal, are not documented and require decision making based on the need of the SEs at the point in time. Due to the high cost of DT and new technologies as well as the financial limitation in SEs make a strategic decision based on their allocated budget for DT and the needs of the enterprise. For example, one SE had to decide between implementing Search Optimisation Engine (SEO), which is expensive, or pay-per-click, which is the cheaper

option for marketing. SEs are always looking at cost-effective alternative platforms that are simple and already established like WhatsApp that everyone use and is familiar with to do business on. SEs uses an inclusive organisational strategy by getting the whole organisation involved to work towards one common goal. Allowing all parties involved to see the value of the DT change, build trust and help the employee see the results. Effective communication throughout the DT journey ensures that there are no unrealistic expectations from all parties involved.

P12 argued:

“Part of implementing anything is a bit of change management; change management can support various adoptions of changes. Training is a big part of it and not working or preventing working in isolation and just implementing something and expecting people to just grasp I think that's a big lesson for a lot of big corporates and also small to medium businesses which are to have clear communication speaking through sort of protocols and steps for adoption of a piece of technology with all the people involved, stakeholders and developing a clear plan. The plan needs to include training and onboarding of new technology so that when it is implemented the car can be driven and it's not just the car that's sitting in a parking lot that nobody knows how to drive” (Appendix C12).

SEs are of the view that training as a strategy builds confidence in transforming digitally. SEs are also of the view that breaking the DT process into small achievable goals and training staff are important to overcome employee resistance and to maintain jobs. P5 stated that, “I would suggest to stagger the transformation and do it over some time. The period is dependent on the size of the company and the number of employees that you have” (Appendix C5).

Finding 27: DT does not have to be achieved in one big goal; it can be achieved with smaller incremental goals

Finding 28: Communication and training is key to assist with employee resistance

Finding 29: Ensure that a sufficient budget is allocated for DT

IQ 1.2.3: What are the major consideration factors in your organisation that influence the choice of new technology adoption for the business? (e.g. cost, resistance from employee / customers/suppliers etc.)?

This question was asked to gain a general feeling of what SEs look at before deciding which new technologies they adopt into their business.

There is no shortage of technology in the market and as P3 stated, technology is seldom the challenge. There are however factors to be considered before deciding to adopt a certain technology. Poor technology decisions can be devastating to any SE if they select technology without understanding what need it is going to meet within the enterprise.

Ps (1, 2, 3, 4, 5, 6, 8, 9, 10, 12, 13, 14) indicated that the cost of technology is a major deciding factor when adopting new technologies. SEs will not invest in unreasonably priced new technology. P4 said, "We don't say no to a lot of new technologies. If the technology can help us increase our productivity it's normally a yay, but I think the second level from that is costing it can't be unreasonably priced but yeah I think a lot of the ones that work for us are normally a yes" (Appendix C4).

P5 stated:

"I think you've got to consider the cost of course there's always the cost component and then we also would highly consider the integration abilities with our existing systems. So you know if we're bringing on a new system and we've got to make sure that it speaks to our CRM speaks to our billing system speaks to our analytics systems and so integration systems is a very important one for us after costs" (Appendix C5).

SEs are also of the belief that technology is in its easiest form from the time when their enterprise used applications such as Hootsuite to now with applications such as Facebook, which is straightforward. There is however paid technology and findings show that for SEs, it is important to understand the Rand-to-Rand ROI before deciding on adopting new technology for the enterprise. Thus, if the organisation spends R 1.00, will they get R 2.00 in return? Another major consideration of SEs is the integration abilities of the new technology into the existing systems, which is a key factor for their enterprise to avoid major disruptions of the daily operations. SEs place a huge emphasis on the need or problem that the new technology will solve before investing financial resources to purchase or develop it.

Finding 30: The limited financial resources in SEs mean that new technology (hardware or software) should not be too expensive and have a return on investment

Finding 31: SEs will opt for free to low-cost technology before investing financial resources into paid technology if the free or low-cost technology can solve the problem or need

IQ 1.2.4: How agile and flexible is your company to follow up on new technology trends?

This question was asked to determine how quickly SEs follow up and adopt on new technologies entering the market to remain competitive.

The only thing that remains constant is change, and the same can be said for technology. Developers are constantly looking to develop new or update existing technology, and this means the options available to SEs are endless. These constant changes are happening so fast that it is not even giving the existing or previous version of a certain technology time to 'cool off'. Following these technology trends requires the entrepreneur to make quick decisions on the adoption and implementation of new technologies for their enterprise. Ps (1, 2, 3, 4, 5, 8, 9, 10, 11, 12, 13, 14, 15) mentioned that their enterprise are very agile and flexible to follow up on new technology trends and then almost immediately follow up on new technologies entering the market.. P7 stated that their SE does not follow up on new technology trends at the moment. P6 did not answer the question due to technical issues. P3 stated, "I am very agile and flexible as I continuously read up and learn about current technological advancements and keep myself up to date, and even try stay ahead of the game in DM but following overseas trends" (Appendix C3).

Finding 32: SEs' size makes them more flexible and agile to adapt to technology

Finding 33: Some SEs tend to lean towards cost-effective technologies such as the Facebook Business Suite

IQ 1.2.5: How do you consider DT to be a source of value creation in terms of both customers and your company itself?

This question was asked to explore how SEs perceive DT as a source of value creation for the SE and customers.

The Internet of Things (IoT) components such as automation, digitisation of processes and robotics, for example, are key drivers for enterprises to create value by going paperless and becoming more environmentally friendly. For customers, DT creates value through artificial intelligence and automation by creating more convenient services that are readily available to customers at their fingertips or with the click of a button. SEs can also offer their services not just locally, but internationally as well. This is the case with the DM sector where many South African DM agencies are servicing international clients online from the comfort of their office.

DT, through the digitalisation of manual processes, lowers the operational cost of information exchange with customers through social media platforms, which, in return, creates value to both the SE and the customers. P3 said that, "Digitalisation lowers the costs of information exchange, coordination, safeguarding, enforcing etc. and therefore unleashes value, the more exchanges, the higher the potential benefits. More accessible information will reduce information asymmetry between market Ps, which will, in turn, make markets more fluid and influence competition" (Appendix C3).

CMS and CRM create value for both SEs and their customers by streamlining the experience of a process payment system, for example, search engines such as Google have created value for both organisations and customers, as SEO creates more visibility for businesses and attracts more customers. DT, through cloud computing and process automation, creates value to the enterprise by moving from paper-based processes to paperless processes and by placing customers more in control of certain processes where the customers have sight of the entire process. P11 stated that, “Our customers quite enjoy the fact that when they first start engaging me they will be shared a document online which they’ll be able to access online and meet me online” (Appendix C11).

Finding 34: Digitalisation lowers the cost of information exchange organisations and their customers, thereby unleashing value; the more exchanges, the higher the potential benefits

Finding 35: SEs use process automation to create value for the customer by placing the customer in control of certain processes

IQ 1.2.6: How does DT impact organisational performance?

This question was asked to determine whether the impact on SEs’ performance was positive or negative.

SEs believe that DT impacts the SEs performance and financial growth, but did not elaborate how. SEs are also of the view that DT streamlines their processes making them more time effective. P13, P14, and P15 mentioned that DT improved their organisational performance through increased productivity P9 stated that “DT increased the SE’s market share” (Appendix C9).

Finding 36: DT positively impacts on the financial growth of the enterprise

Finding 37: DT increases the productivity of the enterprise

Finding 38: DT increases the market share growth of SEs

IQ 1.2.7: How does DT impact the following? Please discuss each of these: Leadership decision making, financial costs, organisational culture, employees (skills and adoption) and customer (adoption).

This question was asked to get the general feeling of the SEs on their understanding of how DT holistically impacts the organisation.

i) Leadership decision making

Incorrect selection of technology, failure to communicate, delayed decision making is some of the leadership decision making that impact on DT. Leadership decisions for SEs are vital as the right decision can mean growth for the enterprise and an incorrect decision can mean financial loss, reputational loss and even closure of the enterprise. P1 and P4 mentioned that they have never used DT to make decisions before. P4 added that leadership decisions were always business based and on employee performance. P3 mentioned that DT allowed leaders to make decisions on simple customised solutions such as automation of certain processes. P5 and P9 mentioned that leadership decision making impacts DT if the leader/s do not have any knowledge or skills of digital technology to make the correct decisions or hire the correct skills needed by the enterprise.

Finding 39: DT requires leaders to make informed decisions about the transformation of the SEs' processes and business models

ii) Financial costs

Financial costs are the biggest concern to SEs, especially when financial resources are limited. DT can become an expensive journey for SEs if costs are not negotiated upfront and a sufficient budget is allocated. Understanding the financial costs associated with DT before embarking on the journey is key to successful DT.

P1, P5, and P9 highlighted that DT is not free, and in some cases the SE will end up spending more financial resources, but the benefits of DT is worth it in the long term for return on investment. P1 added that paying monthly or yearly for a website or a domain is an expense, but this increases the client base, which, in return, increases revenue. P14 mentioned that DT through process automation can drastically reduce costs, for example, salary costs. P14 further said, "Financial costs always increase profits tremendously when it cuts out the manual labour which takes most of the profit" (Appendix C14). P8 stated that "DT allows for location freedom and can they work from anywhere which in return makes daily operations cost-effective" (Appendix C8). P13 suggested that "DT brings a lot of free software that can reduce financial costs, but also with research enterprises can find cost-saving software that can perform multiple functions within the enterprise that also saves costs in the long term" (Appendix C13).

Finding 40: Financial costs are a concern for SEs as there is always a need to look for cost-effective software or technology

iii) Organisational culture

Organisational culture can become a barrier with the implementation of DT especially if there is employee resistance. P3 stated that, "It is important for leaders to prioritise organisational

culture so that the DT can have a positive impact on the enterprise” (Appendix C3). P13 stated that “it is important to create a healthy corporate culture for any DT as it is healthy for business” (Appendix C13). P15 mentioned that, “Organisational culture is important in DT as there is the perception that robotics is going to replace human beings which result in job losses. This is scary for some people and therefore a platform needs to be created where employees can learn new skills to adapt to the new changes” (Appendix C15).

Finding 41: Organisational culture impacts on DT through the priority it is given by leaders to communicate the transformational change to employees and create the platform for employees to adapt to the change whilst learning new skills

iv) Employees (skills and adoption)

DT brings many new possibilities to SEs. Systems are becoming smarter and are trainable to perform human functions, for example self-driving cars. For employees this is a scary time as the fear of irrelevance due to skill shortage and joblessness makes them less excited during a DT journey. This however is nothing new as each industrial revolution brings along its own opportunities and challenges. Thus, as mundane tasks are replaced by computers, new opportunities to learn a new skill set are created. P1 mentioned that most of the employees in their SE are in their 20s; technology is typical (natural) to them. For employees, skills and adoption during DT comes easy. P4, P5 and P13 said they think it is vital for employees to upskill and educate themselves through technologies as there are many platforms available where new skills can be learned for free. P9 argued that “it is important for organisations to invest in their employees when it comes to new technologies and software” (Appendix C1). P15 stated that “it is important from a management perspective to encourage employees to continuously learn as well as provide training opportunities for them to adapt to the change” (Appendix C15).

Finding 42: There is a need for SEs to develop the skills of their employees to be able to adapt to the DT environment

v) Customer (adoption)

Value creation for customers in DT is a key aspect as to why organisations initially transform. Adopting and implementing any new technologies is exciting, but comes with its own challenges. If the targeted customers do not have the infrastructure or technologies to get the value out of your product or service your new technology is not useful. Customer adoption is also hindered during DT if new technology is too over-complicated and customers find it difficult to navigate it. P1 mentioned that “customers should have basic knowledge of technology to get some benefit from it” (Appendix C1). P8 suggested “to go through the process with the client showing them the benefits and value of the new technologies” (Appendix C8). P5

commented that “customers should be patient with the organisations whilst they going through a DT since there will be teething problems during the changeover” (Appendix C5). P2 mentioned that “DT impact all in the SE due to the reliance placed on technology for the daily operation of the business” (Appendix C2).

Finding 43: There is a need for SEs to understand and consider the customer perspective when undergoing DT

The findings (20) for RSQ 1.2 are presented in Table 4.10.

Table 4.10: Summarised findings for RSQ 1.2

No.	Finding	Category	Theme
23	There is a lack of understanding of the benefits of DT	Understanding of concepts	Business Process Management and the implementation of DT
24	There is a lack of experience to lead and implement DT successfully	Knowledge and skills barrier	The role of leadership decision making in the implementation of DT
25	There is a lack of financial resources for DT and employee resistance to DT	Financial aspects	The financial aspects of DT
26	SEs often attempt to take shortcuts and less expensive alternative routes to DT	Understanding of concepts	Business Process Management and the implementation of DT
27	DT does not have to be achieved in one big goal; it can be achieved with smaller incremental goals.	Understanding of concepts	Business Process Management and the implementation of DT
28	Communication and training is key to assist with employee resistance.	Knowledge and skills barrier	The role of leadership decision making in the implementation of DT
29	Ensure that a sufficient budget is allocated for DT.	Financial aspects	The financial aspects of DT
30	The limited financial resources in SEs mean that new technology (hardware or software) should not be too expensive and have a return on investment	Financial aspects	The financial aspects of DT
31	SEs will opt for free to low-cost technology before investing financial resources into paid technology if the free or low-cost technology can solve the problem or need	Financial aspects	The financial aspects of DT
32	SEs' size makes them more flexible and agile to adapt to technology	Strategic planning process	The role of leadership decision making in the implementation of DT
33	Some SEs tend to lean towards cost-effective technologies such as the Facebook Business Suit	Financial aspects	The financial aspects of DT
34	Digitalisation lowers the cost of information exchange organisations and their customers, thereby unleashing value; the more exchanges, the higher the potential benefits	Process automation	Business Process Automation (BPA) in support of DT

No.	Finding	Category	Theme
35	SEs use process automation to create value for the customer by placing the customer in control of certain processes	Process automation	Business Process Automation (BPA) in support of DT
36	DT positively impacts on the financial growth of the enterprise	Financial aspects	The financial aspects of DT
37	DT increases the productivity of the enterprise	Financial aspects	The financial aspects of DT
38	DT increases the market share growth of SEs	Perceived benefit of DT	DM transformation as a tool for value creation in DT
39	DT requires leaders to make informed decisions about the transformation of the SEs' processes and business models	Informed decision making process	The role of leadership decision making in the implementation of DT
40	Financial costs are a concern for SEs as there is always a need to look for cost-effective software or technology	Financial aspects	The financial aspects of DT
41	Organisational culture impacts on DT through the priority it is given by leaders to communicate the transformational change to employees and create the platform for employees to adapt to the change whilst learning new skills	Knowledge and skills barrier	The role of leadership decision making in the implementation of DT
42	There is a need for SEs to develop the skills of their employees to be able to adapt to the DT environment	Knowledge and skills barrier	The role of leadership decision making in the implementation of DT
43	There is a need for SEs to understand and consider the customer perspective when undergoing DT	Knowledge and skills barrier	The role of leadership decision making in the implementation of DT

4.5.1.2 Findings for RQ2

RQ2: How can SEs efficiently organise, support and enable a DT strategy?

RSQ 2.1: What are the factors influencing the formulation, adoption and implementation of a DT strategy?

IQ 2.1.1: What is your understanding of DT strategy?

This question was asked to determine what the understanding is of SEs regarding DT strategies.

P1 stated that “a DT strategy is called upon when an organisation wants to increase their revenue and client satisfaction rate” (Appendix C1). P5 mentioned that “a DT strategy is a solid plan around DT to get some form of investment” (Appendix C5). According to P6, DT strategies are “about streamlining the processes” (Appendix C6). P15 stated that “a DT strategy looks at

the whole enterprise and sees which sections of the enterprise can be digitised” (Appendix C15). Contrary to P9 and P15, P10 argued that DT strategies are a plan to implement DT in an organisation. P12 went as far as to state that DT strategies are a maturity model that provides knowledge that can be used to build a framework for DT.

Finding 44: There is a lack of understanding among SEs as to what a DT strategy means

IQ 2.1.2: In your opinion, would you say that DT can assist the company to be proactive to new disruptors entering the market? How and why?

This question was asked to obtain the general opinion of the SEs on using DT as a tool to prepare for market disruptors.

The Ps (1, 3, 4, 5, 6, 8, 9, 10, 12, 13, 14, 15) believed that DT can assist SEs to be proactive in preparing for market disruptors. P2 was not sure if DT can assist SEs to be proactive to market disruptors, but did elaborate on a reason why. P7 and P11 did not answer the question due to technical issues. P3 stated that “DT can assist the enterprise to be more proactive to disruptors because DT forces organisations become more and creative as well as look for new ways to automate processes and increase customer satisfaction” (Appendix C3). P4 stated that “there are technologies on the market that allows you to spy on competitors which can assist you to prepare for disruptors” (Appendix C4).

P6 did not think there is a need to prepare for disruptors entering the market as it is all about finding the right customer for the business. P14 said “yes and no”, but could not provide a reason for saying this as the digital world is constantly changing and there is no particular strategy to target a specific disruptor.

Finding 45: SEs consider DT as a tool to prepare them against market disruptors

Finding 46: SEs consider DT a key driver for innovation and creativity to either disrupt the market or respond to market disruptors

IQ 2.1.3: Is there a clear technology strategy in your organisation? If yes, how is it in line with your business strategy?

This question was asked to determine if the SEs has a technology strategy and how it aligns with their business strategy.

Four Ps (1, 5, 6, 8) stated that their enterprise has one strategy that covers the business and technology strategy. Ps (2, 4, 10, 12, 13, 14) said they do not have any strategy at this point. P3 did not confirm if there is a technology strategy in the enterprise but mentioned that they

are constantly researching to find new tools and trends from similar organisations internationally and use the information found to strategise and remain competitive. P9 stated that their enterprise does not have a strategy. P15 said their enterprise has an informal strategy.

Finding 47: Some SEs operate with one strategy but do not have specific strategies covering just DT or technology

Finding 48: Some SEs operate without any strategy in their organisation

IQ 2.1.4: Have your company used a DT strategy before? If yes, was it a formal or informal strategy? If no, why not?

This question was asked to establish whether a DT strategy was previously used, and if yes, whether it was a formally documented strategy or an informal strategy.

P1 mentioned that their SE used a formal strategy, but associated it with marketing. P2 said she thinks they used an informal DT strategy, and mentioned that it was just about exploring new technologies available on the Internet. P3 stated yes, but it was informal and very flexible, with no further elaboration. P4 thought yes, because it would have been used from the start since they born-digital. P5 did not think it applied to their SE because they are born-digital. P8 used an informal DT strategy to incorporate a few systems to streamline their processes. P9 said yes, because they moved their lead generation system from human interaction to automation. P1 stated, "I see yes we had a formal strategy. One person designated to marketing and yeah we had a certain budget for it also" (Appendix C1). P2 said, I think yes, but it was informal because it was just me trying to explore how we can do things better and that's how I found Zero and Mega, but it wasn't anything formal no" (Appendix C2). P5 stated, "So because personally, our business has always been digital it doesn't apply to us" (Appendix C5).

Finding 49: There is confusion among SEs in differentiating between a digital strategy and a DT strategy

Finding 50: SEs lack understanding of what a DT strategy entails

IQ 2.1.5: If a DT strategy is not being used in your organisation, is there any consideration to adopt it in future? If yes, why? If no, why not?

This question was asked to obtain the feeling of the SEs on adopting a DT strategy in the future.

Ps (1, 2, 4, 6, 7, 8, 9, 10, 12, 13, 14, 15) stated that their enterprise would adopt a DT strategy in the future. P5 indicated that their enterprise would not adopt a DT strategy because it does not apply to their enterprise, but they will recommend it to their clients.

Finding 51: SEs plan to adopt a formal DT strategy in future

IQ 2.1.6: Should your company decide on using a formal DT strategy, how would you go about the formulation, adopting and implementing it in your organisation?

This question was asked to determine if SEs understand how to create and implement a DT strategy.

SEs have different understandings as to creating and implementing a DT strategy. For example, P1 thought it to be important to learn about DT strategies. Others (P3, P10) wanted to start by doing the research before attempting to create and implement a DT strategy. Outsourcing the DT function was also suggested by P4. P8 and P9 did not state how to formulate, adopt and implement a DT strategy, but mentioned automation as a DT process for the enterprise. P12 said they are busy formulating a program on how to formulate, adopt and implement a DT strategy that will form part of their onboarding program.

Finding 52: There is a lack of understanding among SEs on how to formulate, adopt and implement a DT strategy

IQ 2.1.7: In your opinion, is there any belief that a formal DT strategy can assist SEs to successful digitally transform? If yes, why? If no, why not?

This question was asked to explore if SEs, based on their understanding of DT strategies, can see it as a tool to digitally transform.

P1 stated that a formal DT strategy is what their SE is built on because that is their main income. P3 mentioned that she is the only employee and decision-maker and does not think formal DT strategies are applicable to their SE. Ps (4, 5, 6, 7, 8, 10, 11, 12, 13, 14, 15) said a formal DT strategy would be able to be of assistance to them. P9 said, "No because DT can become very expensive for SEs, but yes if it is costs effect and the DT strategies can show a return on investment" (Appendix C9).

Finding 53: Most of the SEs consider a formal DT strategy as a key factor to successful DT

Finding 54: Cost is a major consideration for adopting a DT strategy

IQ 2.1.8: What are the major factors in your organisation that influence the choice of adopting and implementing a DT strategy for the business?

This question was asked to determine what SEs consider as factors that would influence their decision to adopt and implement a DT strategy.

Table 4.11 presents a list of factors influencing the decision to adopt and implement a DT strategy.

Table 4.11: Factors influencing the decision to adopt and implement a DT strategy

Ps	Factors influencing the choice of adopting and implementing a DT strategy
P1	Google Analytics plays a vital role for the SE market as this is how they do their business.
P2	i) DT strategies must work, ii) it must be cost-effective, and iii) there must be return on investment.
P3	It is dependent on the entrepreneur as the most influential decision maker.
P4	It must increase the productivity, ii) cost-effectiveness and DT strategies, and iii) it must add value to the enterprise.
P5	It must allow SEs to remain competitive.
P6	i) What problem will it solve, ii) how cost-effective is it, and iii) what value will be added?
P7	Question not answered due to technical issues.
P8	i) What is the DT strategy going to do for my business, ii) what are the benefits of the DT strategy and iii) where can it be researched to educate myself?
P9	i) Cost-effectiveness, especially for SEs; ii) there must be an option to automate processes, iii) the ability to collect data from it for analysis, and iv) time efficiency is important.
P10	There must be business growth and ii) the ability to generate revenue.
P11	Question not answered due to technical issues.
P12	i) The benefits must be clearly expressed to meet the business needs, ii) the DT strategy must be simple and ii) it must improve time efficiency.
P13	i) Adopting a DT strategy must make sense for the business and ii) the technology must work to streamline processes.
P14	i) It must increase productivity, ii) streamline workflow and iii) improve customer and user experience.
P15	i) It must streamline processes, ii) be user friendly and iii) be costs effective.

Finding 55: The benefits of a DT strategy must be clearly defined for SEs

Finding 56: The formulation, adoption and implementation must be cost-effective, simplified and efficient

Finding 57: The DT strategy must be able to increase productivity and revenue and provide a return on investment

The findings (14) for RSQ 2.1 are presented in Table 4.12.

Table 4.12: Summarised findings for RSQ 2.1

No.	Finding	Category	Theme
44	There is a lack of understanding among SEs as to what a DT strategy means	Knowledge and skills barrier	The role of leadership decision making in the implementation of DT
45	SEs consider DT as a tool to prepare them against market disruptors	Perceived benefit of DT	DM transformation as a tool for value creation in DT
46	SEs consider DT a key driver for innovation and creativity to either disrupt the market or respond to market disruptors	Perceived benefit of DT	DM transformation as a tool for value creation in DT
47	Some SEs operate with one strategy but do not have specific strategies covering just DT or technology	Strategic planning process	The role of leadership decision making in the implementation of DT
48	Some SEs operate without any strategy in their organisation	Knowledge and skills barrier	The role of leadership decision making in the implementation of DT
49	There is confusion among SEs in differentiating between a digital strategy and a DT strategy	Knowledge and skills barrier	The role of leadership decision making in the implementation of DT
50	SEs lack understanding of what a DT strategy entails	Knowledge and skills barrier	The role of leadership decision making in the implementation of DT
51	SEs plan to adopt a formal DT strategy in future	Understanding of concepts	Business Process Management and the implementation of DT
52	There is a lack of understanding among SEs on how to formulate, adopt and implement a DT strategy	Knowledge and skills barrier	The role of leadership decision making in the implementation of DT
53	Most of the SEs consider a formal DT strategy as a key factor to successful DT	Factors influencing the implementation of DT and the DT strategy	Business Process Management and the implementation of DT
54	Cost is a major consideration for adopting a DT strategy	Understanding of concepts	Business Process Management and the implementation of DT
55	The benefits of a DT strategy must be clearly defined for SEs	Understanding of concepts	Business Process Management and the implementation of DT
56	The formulation, adoption and implementation must be cost-effective, simplified and efficient	Understanding of concepts	Business Process Management and the implementation of DT
57	The DT strategy must be able to increase productivity and revenue and provide a return on investment	Factors influencing the implementation of DT and the DT strategy	Business Process Management and the implementation of DT

RSQ 2.2: What are the digital opportunities for SEs to adopt and implement a DT strategy?

IQ 2.2.1: How adoptive and responsive is your company to new technology?

This question was to determine the responsiveness of SEs to new technologies.

All the Ps indicated that they are very responsive to new technologies.

Finding 58: SEs are very responsive to new technologies.

IQ 2.2.2: How beneficial will adopting a DT strategy be to your company?

This question was asked to determine if SEs are aware of the benefits of adopting a DT strategy.

P8 stated, "Yes because in South Africa's current economic times if you do not have a DT strategy your organisation might be non-existent in a few years" (Appendix C8). P1 believed that "it depends on the enterprise and what they doing with the DT, how their employees accept it which will determine if it is successful or not" (Appendix C1). A DT strategy can be beneficial to SEs with regards to service and process improvement, time efficiency, better communication, innovation, and organisation culture planning (P1, P2, P9, P10, P12, P13, P14, P15).

Finding 59: The potential benefits of a DT strategy identified by SEs are dependent on the need within the organisation that the DT strategy will address

Finding 60: The benefits range from relevance in the market to how well the SEs can explore and exploit DT to improve services, processes, time efficiency, communication, innovation and organisational culture

IQ 2.2.3: Was there ever a time that technology could not meet a customer's need? If yes, why? If no, why not?

This question was asked to determine if an SE could not use technology to meet the client's needs.

According to Ps (1, 2, 4, 5, 6, 8, 10, 12, 13, 14, 15), there were times when they could not meet the needs of the customers through technology. P3 said there was never a time in their enterprise that technology could not meet their client's need. P7 and P11 did not answer the question due to technical issues.

P1 stated, "Yes and the reason for not being able to meet the clients need is because the market was oversaturated with new technologies and customers had an unrealistic expectation in comparison to their budget" (Appendix C1). P4 said, "Yes, and the reason behind not meeting the client's need is because the customers understanding of the technology and the customer's willingness to adapt to using that technology created barriers to implementing the

new technologies". P12 stated, "Yes, as a clear pathway was not provided on how the DT will be adopted and implemented. This means that they always look for ways around the potential issues to still meet the client needs" (Appendix C12). P3 said, "No, because through research their enterprise is always able to find the technological tools to meet the client needs" (Appendix C3).

Finding 61: SEs reported that there are times that the technology cannot support the customers' needs and linked it to reasons such as market saturation, customer expectation versus technology, and budget misalignment

IQ 2.2.4: What are the most important lessons learned regarding DT changes that you have made in your organisation? Please indicate any specific successes or failures with regards to digital technology implementation.

This question was asked to determine what learning happened and what or corrective action measures the SEs took from the implementation of DT.

There have been many lessons during DT implementation. Some of these are: i) doing research before embarking on the DT journey (P3, P13); ii) understanding the risk involved when implementing a DT strategy (P3); iii) the involvement of owners and management; iv) staying true to organisational values; v) creating new products for customers (P9); vi) considering the value creation (P10); vii) testing the strategies (P1); and viii) managing change throughout the entire process (P14).

Finding 62: Research before embarking on a DT journey is important

Finding 63: Conduct a risk analysis before implementing DT

Finding 64: Involve all relevant stakeholders to stay true to the organisation's values and manage the change process

Findings 65: Design and develop products with the customer in mind to create value

IQ 2.2.5: In your opinion, where is your company now in terms of your organisational strategy?

This question was asked to determine if the SEs have an organisational strategy and at what phase of their strategy they are at.

All the SEs except P5 and P6 said they are at some stage of implementing a DT strategy. However, the implementation is more or less at the beginning stages. P1 said that their "organisational strategy was coming along and that there are talents they want to attract to grow the enterprise" (Appendix C1). P4 and P13's enterprise is at the beginning stage of their

organisational strategy. P6 said they are in the process of re-strategising. P8 indicated that their organisational strategy was broken up into three-phase and that they are now at the implementation phase. P9 stated that their organisational strategy is now at the growth stage. P10 and P14 did not start on their organisational strategy yet.

Finding 66: Most of the SEs organisational strategy is at the beginning phase

Finding 67: The majority of the SEs have started their organisational strategy and are either at the beginning, the growth or re-strategising, or the implementation phase

Finding 68: Some SEs have not started with their organisational strategy yet

IQ 2.2.6: Where do you want your organisation to be in terms of DT in the future?

This question was asked to determine if there is a DT vision that the SEs have in mind for the future.

The Ps said they see a future where they all will be transformed digitally. They stated aims such as: i) a touchless payment system (P5); ii) streamlining their processes (P6); iii) offering of online courses (P8); iv) DM (P8); v) the incorporation of virtual assistance; and vi) standardisation of operations (P9). P2, P3, and P11 said their enterprise would like to be on the front line and on par with what is happening in the industry. P5 indicated that their enterprise would like to incorporate more touchless payment systems in future. P6 said that “their enterprise would like to create a more streamline process in the future” (Appendix C6). P8 said “they would like to create more online courses going forward to create awareness and share knowledge with other digital marketers in the industry” (Appendix C8).

Finding 69: SEs envision their organisation incorporating virtual assistance software and touchless payment systems as part of their DT journey

Finding 70: There is a need for SEs to keep up to date with the latest technology to remain relevant and competitive

Finding 71: SEs want to streamline and standardise their operational processes in future

IQ 2.2.7: How will you get to where you want the company to be in the future?

This enquiry was asked to determine what the plan of action is of the SEs to get their enterprise to where they foresee it in the future.

SEs indicted various ways of getting their SE to where they want it to be in the future. Analysing the responses, it is evident that DT is not as high as expected on the SE future agenda. The

following is some randomly selected comments from the Ps to illustrate the point. P2 and P3 mentioned that research and development of new knowledge will get the enterprise to where it wants to be in the future. P5 said, "More internal DM on key focus areas (Appendix C5). P9 thought that it is only through more sales that they can get to where they want to be in the future. P15 stated that research and development to establish which processes can be automated will get their enterprise to where we want to be in the future.

Finding 72: Some SEs plan to utilise research and development, internal marketing and sales to achieve their future goals in terms of DT

IQ 2.2.8: What were the most influential trends of DT within your industry and what are the expected future trends?

This question was asked to establish what the new technology trends for DT are and whether SEs are following up on these trends for adoption into their enterprises. All the Ps said they think that artificial intelligence, machine learning, cloud applications (apps), automation, robotics, virtual administration, gamification, data management and information will be future technology trends.

Finding 73: Artificial intelligence, machine learning, cloud apps, automation, robotics, virtual administration, gamification, data management and information are seen as future technology trends

Error! Reference source not found. summarises the findings (16) of RSQ 2.2.

Table 4.13: Summarised findings for RSQ 2.2

No.	Finding	Category	Theme
58	SEs are very responsive to new technologies	Strategic planning process	The role of leadership decision making in the implementation of DT
59	The potential benefits of a DT strategy identified by SEs are dependent on the need within the organisation that the DT strategy will address	Understanding of concepts	Business Process Management and the implementation of DT
60	The benefits range from relevance in the market to how well the SEs can explore and exploit DT to improve services, processes, time efficiency, communication, innovation and organisational culture	The optimisation of operational processes	Business Process Management and the implementation of DT
61	SEs reported that there are times that the technology cannot support the customers' needs and linked it to reasons such as market saturation, customer expectation versus technology, and budget misalignment	Informed decision making process	The role of leadership decision making in the implementation of DT
62	Research before embarking on a DT journey is important	Informed decision making process	The role of leadership decision making in the implementation of DT
63	Conduct a risk analysis before implementing DT	Risk mitigation and control measures	Risk management in DT
64	Involve all relevant stakeholders to stay true to the organisation's values and manage the change process	Risk mitigation and control measures	Risk management in DT
65	Design and develop products with the customer in mind to create value	Strategic planning process	The role of leadership decision making in the implementation of DT
66	Most of the SEs' organisational strategy is at the beginning phase	Strategic planning process	The role of leadership decision making in the implementation of DT
67	The majority of the SEs have started their organisational strategy and are either at the beginning, the growth or re-strategising, or the implementation phase	Strategic planning process	The role of leadership decision making in the implementation of DT
68	Some SEs have not started with their organisational strategy yet	Strategic planning process	The role of leadership decision making in the implementation of DT
69	SEs envisioning their organisation incorporating virtual assistance software and touchless payment systems as part of their DT journey	Integration of new technology	The influence of digital technologies
70	There is a need for SEs to keep up to date with the latest technology to remain relevant and competitive	Integration of new technology	The influence of digital technologies

No.	Finding	Category	Theme
71	SEs want to streamline and standardise their operational processes in future	The optimisation of operational processes	Business Process Management and the implementation of DT
72	Some SEs plan to utilise research and development, internal marketing and sales to achieve their future goals in terms of DT	Integration of new technology	The influence of digital technologies
73	Artificial intelligence, machine learning, cloud apps, automation, robotics, virtual administration, gamification, data management and information are seen as future technology trends	Integration of new technology	The influence of digital technologies

In Table 4.14: Summary of themes and findings, arranged per RSQ and RQ the seven (7) identified themes are presented as they relate to the research findings and linked to the RQs and RSQ.

Table 4.14: Summary of themes and findings, arranged per RSQ and RQ

Themes	Findings	RSQ	RQ	No. of findings
Business Process Management and the implementation of DT	1, 5, 20, 23, 26, 51, 53, 54, 55, 56, 57, 59, 60, 71	1.1, 1.2, 2.1, 2.2	1, 2	14
The role of leadership decision making in the implementation of DT	7, 12, 13, 24, 27, 28, 32, 39, 41, 42, 43, 44, 47, 48, 49, 50, 52, 58, 61, 62, 65, 66, 67, 68	1.1, 1.2, 2.1, 2.2	1, 2	24
DM transformation as a tool for value creation in DT	3, 4, 8, 9, 38, 45, 46	1.1, 1.2, 2.1	1, 2	7
Business Process Automation (BPA) in support of DT	2, 6, 19, 34, 35	1.1, 1.2	1	5
The financial aspects of DT	11, 14, 16, 17, 21, 25, 29, 30, 31, 33, 36, 37, 40	1.1, 1.2	1	13
The influence of digital technologies	10, 15, 18, 69, 70, 72, 73	1.1, 2.2	1, 2	7
Risk management in DT	22, 63, 64	1.1, 2.2	1, 2	3

*RQ - research question; RSQ - research sub-question

4.5.1.3 Summary of findings grouped by RQ/RSQ

The research findings have been analysed to find answers to the posed research questions in order to address the identified problem (section 1.3). Findings were grouped into seven (7) themes as they relate to research questions (Table 4.14: Summary of themes and findings, arranged per RSQ and RQ

- a) **Business Process Management and the implementation of DT:** There are fourteen (14) findings that relate to the theme and contribute to answering RSQ 1.1, RSQ 1.2, RSQ 2.1 and RSQ 2.2.
- b) **The role of leadership decision making in the implementation of DT:** There are twenty-four (24) findings for this theme, and the findings address RSQ 1.1, RSQ 1.2, RSQ 2.1 and RSQ 2.2.
- c) **DM transformation as a tool for value creation in DT:** There are seven (7) findings related to the perceived benefits of DT and contribute to answering RSQ 1.1, RSQ 1.2 and RSQ 2.1.
- d) **Business Process Automation (BPA) in support of DT:** There are five (5) findings contributing to answering RSQ 1.1 and RSQ 1.2.
- e) **The financial aspects of DT:** There are thirteen (13) findings that provide the answers to RSQ 1.1 and RSQ 1.2.
- f) **The influence of digital technologies:** There are seven (7) findings that provide the answers to RSQ 1.1 and RSQ 2.2.
- g) **Risk management in DT:** There are two (2) findings that provide the answers to RSQ 1.1 and RSQ 2.2.

The findings of this study as they map to the research questions are presented in Table 4.15: Research findings summary (all questions)

and each finding is linked to the question it is likely to find the answers for.

Table 4.15: Research findings summary (all questions)

No.	Finding	RSQ
1	DT means something different to each P based on the phase of their business	1.1
2	SEs lack an understanding of the difference between digitisation and digitalisation	1.1
3	DT is important for SEs if they want to remain relevant and competitive in their market	1.1
4	DT enables SEs to compete with larger corporates in the market	1.1
5	New technology improves SEs' business process and decision ability	1.1
6	DT is used to improve customer relations, CRM, CMS and optimise Web applications	1.1
7	DT requires constant research on new market trends to meet customer needs	1.1
8	The benefits of DT depend on the reason for the SE embarking on the journey to DT. Some SEs have seen better time efficiency, reduction in costs and enhanced customer experience.	1.1
9	DT creates an even playing field in a cost effective manner for all businesses, whether big or small	1.1
10	Mobile computing allows SEs the convenience to service their clients at anytime from anywhere from the palm of their hand and at the click of a button	1.1
11	Mobile computing provides a more cost-effective way to service clients	1.1

No.	Finding	RSQ
12	Data analytics technology is a vital tool for SEs to operate their business daily	1.1
13	Most SEs use Google Analytics as an option to assist with analysing information and making decisions	1.1
14	Social media has become a more cost-effective way for SEs to market a business and increase their customer reach	1.1
15	SEs prefer to use cloud storage to store their data	1.1
16	Websites are still popularly used by SEs to advertise their business	1.1
17	Cloud storage is one of the latest technologies that SEs added to their enterprise	1.1
18	Born-digital SEs are more aware of technology options available and implemented them as part of the business when it started	1.1
19	SEs indicated an improvement in their processes, making it more streamlined	1.1
20	Time efficiency and cost-effectiveness were two of the key factors for implementing the new technology	1.1
21	Data are a valuable commodity for SEs to increase their productivity and revenue	1.1
22	There is a need for SEs to ensure that customer information is protected when incorporating new technologies	1.1
23	There is a lack of understanding of the benefits of DT	1.2
24	There is a lack of experience to lead and implement DT successfully	1.2
25	There is a lack of financial resources for DT and employee resistance to DT	1.2
26	SEs often attempt to take shortcuts and less expensive alternative routes to DT	1.2
27	DT does not have to be achieved in one big goal; it can be achieved with smaller incremental goals	1.2
28	Communication and training is key to assist with employee resistance	1.2
29	Ensure that a sufficient budget is allocated for DT	1.2
30	The limited financial resources in SEs mean that new technology (hardware or software) should not be too expensive and have a return on investment	1.2
31	SEs will opt for free to low-cost technology before investing financial resources into paid technology if the free or low-cost technology can solve the problem or need	1.2
32	SEs' size makes them more flexible and agile to adapt to technology	1.2
33	Some SEs tend to lean towards cost-effective technologies such as the Facebook Business Suite	1.2
34	Digitalisation lowers the cost of information exchange organisations and their customers, thereby unleashing value; the more exchanges, the higher the potential benefits	1.2
35	SEs use process automation to create value for the customer by placing the customer in control of certain processes	1.2
36	DT positively impacts on the financial growth of the enterprise	1.2
37	DT increases the productivity of the enterprise	1.2
38	DT increases the market share growth of SEs	1.2
39	DT requires leaders to make informed decisions about the transformation of the SEs' processes and business models	1.2
40	Financial costs are a concern for SEs as there is always a need to look for cost-effective software or technology	1.2

No.	Finding	RSQ
41	Organisational culture impacts on DT through the priority it is given by leaders to communicate the transformational change to employees and create the platform for employees to adapt to the change whilst learning new skills	1.2
42	There is a need for SEs to develop the skills of their employees to be able to adapt to the DT environment	1.2
43	There is a need for SEs to understand and consider the customer perspective when undergoing DT	1.2
44	There is a lack of understanding among SEs as to what a DT strategy means	2.1
45	SEs consider DT as a tool to prepare them against market disruptors	2.1
46	SEs consider DT a key driver for innovation and creativity to either disrupt the market or respond to market disruptors	2.1
47	Some SEs operate with one strategy but do not have specific strategies covering just DT or technology	2.1
48	Some SEs operate without any strategy in their organisation	2.1
49	There is confusion among SEs in differentiating between a digital strategy and a DT strategy	2.1
50	SEs lack understanding of what a DT strategy entails	2.1
51	SEs plan to adopt a formal DT strategy in future	2.1
52	There is a lack of understanding among SEs on how to formulate, adopt and implement a DT strategy	2.1
53	Most of the SEs consider a formal DT strategy as a key factor to successful DT	2.1
54	Cost is a major consideration for adopting a DT strategy	2.1
55	The benefits of a DT strategy must be clearly defined for SEs	2.1
56	The formulation, adoption and implementation must be cost-effective, simplified and efficient	2.1
57	The DT strategy must be able to increase productivity and revenue and provide a return on investment	2.1
58	SEs are very responsive to new technologies	2.2
59	The potential benefits of a DT strategy identified by SEs are dependent on the need within the organisation that the DT strategy will address	2.2
60	The benefits range from relevance in the market to how well the SEs can explore and exploit DT to improve services, processes, time efficiency, communication, innovation and organisational culture	2.2
61	SEs reported that there are times that the technology cannot support the customers' needs and linked it to reasons such as market saturation, customer expectation versus technology, and budget misalignment	2.2
62	Research before embarking on a DT journey is important	2.2
63	Conduct a risk analysis before implementing DT	2.2
64	Involve all relevant stakeholders to stay true to the organisation's values and manage the change process	2.2
65	Design and develop products with the customer in mind to create value	2.2
66	Most of the SEs' organisational strategy is at the beginning phase	2.2
67	The majority of the SEs have started their organisational strategy and are either at the beginning, the growth or re-strategising, or the implementation phase	2.2
68	Some SEs indicated that they have not started with their organisational strategy	2.2

No.	Finding	RSQ
69	SEs envision their organisation incorporating virtual assistance software and touchless payment systems as part of their DT journey	2.2
70	There is a need for SEs to keep up to date with the latest technology to remain relevant and competitive	2.2
71	SEs want to streamline and standardise their operational processes in future	2.2
72	Some SEs plan to utilise research and development, internal marketing and sales to achieve their future goals in terms of DT	2.2
73	Artificial intelligence, machine learning, cloud apps, automation, robotics, virtual administration, gamification, data management and information are seen as future technology trends	2.2

*RQ = research question; RSQ = research sub-question; IQ = interview question

4.6 Summary

In Chapter 4, the results and findings of the study were discussed in detail. The chapter started with the introduction and overview of the case study, followed by the discussion of the interviews and the Ps' transcriptions. The analysis of the research findings followed, resulting in categories and themes as they relate to the RQs and RSQs.

Based on 73 summary findings, eleven (11) categories were formed, namely:

- a) Financial aspects
- b) Informed decision-making process
- c) Integration of new technology
- d) Knowledge and skills barrier
- e) Perceived benefit of DT
- f) Process automation
- g) Risk mitigation and control measures
- h) Strategic planning process
- i) The optimisation of operational processes
- j) Understanding of concepts
- k) Factors influencing the implementation of DT and a DT strategy

The following themes have been identified from the eleven (11) categories:

- a) The financial aspects of DT
- b) The role of leadership decision making in the implementation of DT
- c) The influence of digital technologies
- d) DM transformation as a tool for value creation in DT
- e) Business Process Automation (BPA) in support of DT
- f) Risk management in DT
- g) Business Process Management (BPM) and the implementing a DT

In the next chapter, the themes that were derived from the findings are discussed as they relate to the research questions and objectives.

CHAPTER 5: DISCUSSION OF THE FINDINGS

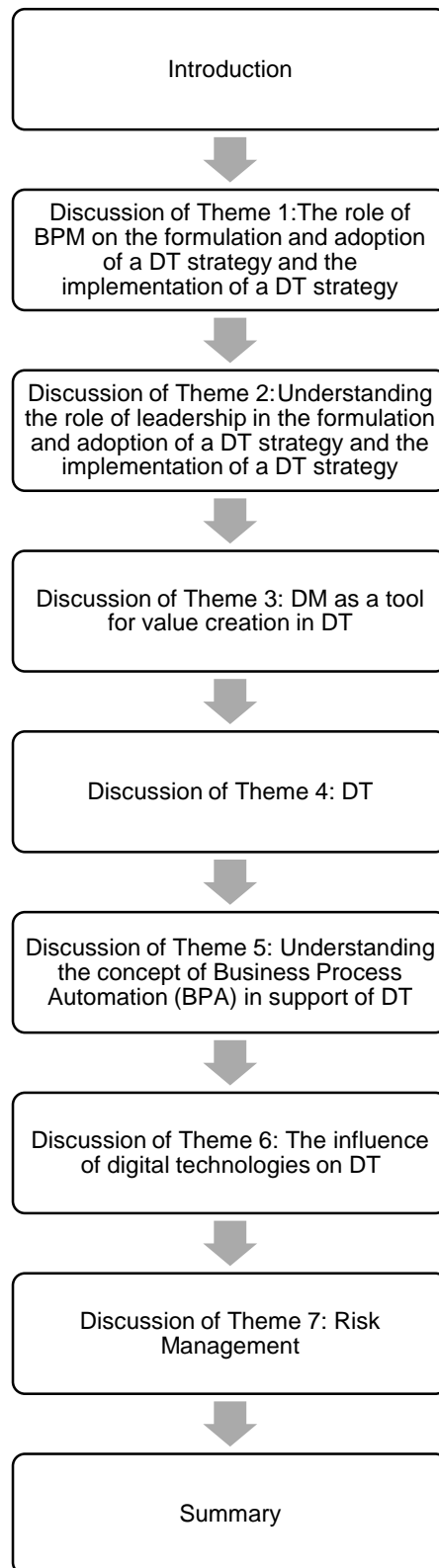


Figure 5.1: Layout of Chapter 5

5.1 Introduction

The development of new technologies has a serious impact on enterprise performance as employees and companies grow more accustomed to being connected to digital technologies all the time. The use of the Web, applications, cloud storage and Internet-connected devices has transformed everyone's everyday lives.

How a business can fully benefit from this transformation is not always clear. The transition towards an I 4.0 perspective could be more complex in the context of SEs for IoT, Big Data analytics, artificial intelligence and blockchains. These technologies generally have implications to design, implement and achieve the full digitalisation of their strategic and organisation's business model (Garzoni et al., 2020). This is because SEs are characterised by the lack of financial resources, knowledge know-how and limited organisational infrastructure necessary to successfully lead and implement DT (Li et al., 2018). Although digital technologies may play a pivotal role in the development of SEs, such enterprises remain weary in adopting the solutions offered by these new digital technologies (Crupi et al., 2020; Schröder, 2016). Furthermore, SEs do not have a complete strategy for implementing a successful DT and only have a limited amount of resources available. SEs do not possess the same financial opportunities and security as large organisations and have a shortage of skilled workers (Kretzschmar, 2021).

A successful DT starts with a well-defined strategy that prioritises initiatives, sets goals, and identifies the criteria for success. Done right, DT strategy solutions can provide numerous benefits that will make the transition worth the time and effort no matter in what industry (Invonto, 2019). Consequently, SEs fail to consider essential elements in their DT strategies and disregard aspects that are significant for its successful implementation (Fürst, 2020).

Matt et al. (2015) argue that the DT strategies have an impact on other business strategies and should therefore be coordinated with them. Some SEs are uniquely capable of developing, applying and implementing DT strategies, and transforming their business models to capture the digital opportunities that may arise (Yucel, 2018b). To implement the vision of the DT and to reach the transformed business model, a DT strategy is needed (Yucel, 2018a). Academic research literature is still in conflict on how an integrated DT strategy should be designed (Trenkle, 2020).

The discussion of the themes is done in relation to the RQs and RSQs as they map to existing literature in the body of knowledge. The themes discussion aims to find answers to the posed research questions in order to address the identified research problem and objectives.

In the next section, the seven identified themes are discussed in detail. The seven themes are:

- a) Business Process Management (BPM) and the implementation of a DT strategy
- b) The role of leadership in the implementation of a DT strategy
- c) DM and DT
- d) Business Process Automation and DT
- e) Finance and DT
- f) Digital technologies and DT strategy
- g) Risk management

5.2 Theme 1: Business Process Management and the implementation of DT strategy

5.2.1 Introduction

A key factor to successful DT implementation in any organisation is a detailed DT strategy framework that serves as a detailed plan outlining the organisation's vision. Although this step-by-step plan provides the adopter with the necessary guidelines to follow, there is still a need to use a methodology such as an enabler like a business process management (BPM) system to assist with the execution of DT.

The DT strategies and the BPM are very closely aligned as both have holistic views of the organisation. As mentioned in Chapter 2 (section 2.3.9), DT strategies focus on leaderships decision making, organisational culture, technology ability, financial costs, employee skills, SE adaptability and customer adaptability contrary to BPM that focuses on the elements of the strategic alignment, governance and policies, methods, technology, people and culture. Before embarking on a DT journey, it is important that there is a clear understanding from the adopter's side on what the required business processes are by SEs to DT and how they can support and enable DT strategies. The purpose of a DT journey is to take advantage of the benefits of digitalisation, such as increase in productivity and sales, cost reductions and an increase in creativity and innovation (Matt et al., 2016). In this study, the understanding and perception of DT produced nine findings (Table 4.5) from the analysed participant responses. The findings based on the responses provide a clear picture that the importance of DT is gaining momentum in SEs. Due to their informal nature as well as their agility and flexibility, SEs focus on incremental changes to their existing business processes with the introduction and adoption of new digital technologies.

5.2.2 RQ1: What are the business processes required for SEs to digitally transform their business?

5.2.2.1 RSQ 1.1: What are the benefits and characteristics of DT?

Striving to answer RSQ 1.1, it is clear that SEs have a general understanding of the characteristics of DT. SEs tend to associate the various aspects of DT based on each individual organisation's need. Morakanyane et al. (2020) found the same in the research work where the characteristics of DT are differently described by different authors, which are dependent

on the duration and impact it has on the organisation. How the characteristics of DT is decided upon can be an difficult process that comes with various dynamics that is a key influence on the journey and outcome (Skog, 2019). Andriole (2017) states that the complexity around the characteristics of DT can lead to organisations developing myths of DT. The findings on the characteristics of DT in this study are in agreement with Skog (2019) and Andriole (2017) in terms of the difficulty of determining a key set of characteristics for DT. Further findings on the characteristics of DT indicate that SEs have either knowingly or unknowingly already applied informal BPM elements in their enterprise. The focus for SEs was just more on digital technology tools such mobile computing, analytic tools, social media and Web-based applications, which are better known by many enterprises than the holistic view of DT itself. Those who allege to have knowledge of DT, its characteristics and its benefits lack a clear understanding of the full comprehensive benefits of DT. All the enterprises stated that they have an understanding of what DT means, but their views have been merely focused on one or two characteristics of DT. This is evident in the response of P10 saying that “DT means transforming businesses into a digital side of things like doing things digitally with technology and keeping up with new technology moving away from old paper-based stuff” (Appendix C10).

DT is gaining popularity and momentum among SEs as more research is done on either making incremental improvements to the existing business model and in collaboration with the adoption of new digital technologies as mentioned previously. This is in agreement with the existing findings found in the literature. SEs have an understanding that DT involves the following:

- a) People (employees and customers) and their ability to adapt to digital technologies introduced to improve the current business model.
- b) Technology is constantly being upgraded and new technology constantly enters the market. SEs are wearing of the costs of new technology and is always seeking alternatives as the market is also flooded with many free technology tools which speaks to the need of the SEs. SEs also understand that not every new technology entering the market is meant for their enterprise as not all might serve their needs.
- c) Processes—SEs have an understanding that without processes their business cannot deliver services or products to its customers which makes it fundamental.

The elements identified by the SEs are similar to the “BPM project success stool” described by Jeston and Nelis (2008:49) which consists of the following elements:

- a) Process: There must be an appropriate level of business process innovation or redesign linked to the organisation strategy and process goals, and an acceptance of the importance of processes within the organisation.

- b) **People:** As an organisation grows in its maturity of process management, it will understand that people are the key to implementing the proposed new processes. The organisation must have the appropriate performance measurement and management structures across key processes. Process management should be proactive and then move towards being predictive, rather than reactive. Among other things, this all revolves around the people aspects of a BPM project.
- c) **Technology:** This refers to the supporting tools for the processes and people and does not necessarily mean BPM software components or applications (although it could).

Globally digital technologies have connected enterprises and customers with each other, but there is still a dependency on the elements of business processes to make it happen successfully. DT has enabled people, information systems, and smart products to interact with each other through a range of digital platforms. DT combined with BPM creates a recipe for success for any enterprise since both DT and BPM have the same conceptualised goals. This makes DT and BPM a suitable operationalised approach to enable DT. These findings support those of Vom Brocke and Mendling (2018) as their research indicates that for many enterprises BPM is a vital aspect to successfully mastering DT as well as transforming their business model. Sandle (2018) states that BPM, DT, digital technologies and DT strategies share a positive relationship with each other. This is because BPM is technology-driven with its purpose to improve business processes by remodelling information systems to better support end-users and streamlined workflow processes (Mendling et al., 2018).

i) People in BPM

The implementation of a business process management system requires that people change the way they focus on their systems even if the core processes are not fundamentally changed (Blokdijk, 2008). The people element is the heart of the BPM process during the implementation stage since people are the deciding factor that determines the success of the DT journey (Vom Brocke & Mendling, 2018; Jeston & Nelis, 2008; Chong, 2007). Jeston and Nelis (2008) further state that whilst people are claimed to be the asset of the organisation only 1% of the projected budget for a BPM project are assigned to the people aspect. Daramola and Daramola (2020:6) argue the importance of creating a conducive culture to motivate and support employees to adapt to long term changes by i) providing sufficient training for employees to enhance their abilities and ii) providing specialised training such as “critical thinking, “leadership” and “teamwork”.

Kirchmer (2017:67) states that it is important to support employees by managing the change process which is a challenge for the employer and employee and is normally triggered by:

- a) New or changing customers, suppliers, or other market partners
- b) New or altered market offerings (goods, services, information, etc.)

- c) Changing legal regulations
- d) Availability of new or modified technologies, like application software or other digital technologies
- e) Outsourcing of processes or sub-processes
- f) Mergers and acquisitions
- g) New business models, e.g., enabled through major digitalisation
- h) Cultural differences in new enterprise locations
- i) Internationalisation with various country requirements

Yoe (2016:53) believes to “assist people with process change it is important to “let people know how it changes and why it changes as it changes”. P12 on their understanding of DT stated that,

“I think largely people get romanticised with technology so it becomes a buzzword for DT or digital adoption or versus really understanding how it can support the business. So for example of our DT, we shifted over the past 24 months from a more traditional setup business to a more robust digital business and one example is on people's experience which is challenging when there is a limited experience or attitudes towards digital and then it's when there is a better attitude or more fluid attitude towards adoption of digital visible so then the process of knowledge transference so training access to training and of course once you have access to training you then need to practically work with it so that one's understanding is more around so I guess that same principles applied to clients who are needing to adopt digital is to ensure that it's i) making sure that it's for the right reasons ii) making sure that there's the right skill sets and then iii) that are training to continuously learn how technology is advancing and shifting to keep abreast with because it's also one thing to be trained on a piece of technology and then in three months it's outdated and the people responsible are not advancing in their knowledge of it becomes a limiting to implement a technology solution when the people and so you can't just plug a piece of technology into a system it still requires people to activate if that makes sense” (Appendix C12).

ii) Technology in BPM

Technology is an enabler that provides support through “software”, “hardware” and “information management systems” in the BPM process (Jeston & Nelis, 2008:325).

According to Panagacos (2012:72), technology is a critical part of BPM, but stated that organisations need fully understand the various BPM tools available on offer by vendors to: i) ensure that the BPM tool selected gathers for the need of the organisation; ii) avoid wasting valuable financial resources by selecting incorrect BPM tool; and iii) ensure that the technology level of the BPM tool is in line with the organisation's digital maturity level. The constant

emerging new technologies entering the market can influence the characteristics of an organisation's BPM (Ahmad & Van Looy, 2020). It is important for SEs to evaluate their BPM process and design as new technologies are introduced into the market environment (Vom Brocke & Rosemann, 2014).

The perception among many of the Ps was that being a born-digital enterprise and utilising technology means that they have digitally transformed. This was revealed by P3's statement on DT, stating that it is about "replacing old systems and processes with online alternatives" because "it's critical in order to remain competitive in any industry" (Appendix C3).

P5 said that,

"This is a difficult question to answer you know our business is framed around the digital world. For us, it's not really a transformation but it's just always been like that. So it's a difficult one for me to answer to be honest you know everything that we do is digital" (Appendix C5).

iii) Processes in BPM

The interest in DT and digital business processes escalated and gained popularity as a direct result of the Covid-19 pandemic. SEs who planned to digitally transform parts of their business model in the future needed to expedite these plans in order to survive, remain competitive and be future-fit. According to Grisold et al. (2021), business processes is the method used to create and deliver new products and services, which leads to improved efficiency, effectiveness and customer experience. This leads to SEs researching new digital technologies to increase their online visibility on the Internet through websites, paid media such as DM and SEO, and free social media platforms such as LinkedIn, Facebook, WhatsApp, Twitter and TikTok.

Creativity and innovation are important to survive for SEs; it requires exponential thinking and moving away from the linear approach. It is about utilising existing technology and integrating them with new technologies to:

- a) Deliver value to the customers
- b) Reduce costs drastically
- c) Increase customer traffic
- d) Increase revenue and sales

Words such as *digitisation*, *digitalisation*, *robotics*, *artificial intelligence*, *cloud computing* and *data analytics* became household words for SEs. The ever-increasing demands of customers meant that product delivery and services needed to speed up rapidly. This resulted in SEs looking into BPA, chatbots via robotics, and artificial intelligence to relieve staff of everyday

mundane tasks and to focus on delivering and meeting customer demands. Data became a valuable commodity to SEs and more and more SEs turned to more cost-effective online tools such as Google Analytics to analyse, fully understand and cater to their customers' needs.

Cloud computing is another digital technology tool that gained popularity among SEs, especially those born-digital enterprises because:

- a) Data became a valuable commodity to gain a bigger market share
- b) Tighter restrictions and governance around data privacy and the need to protect the client's information
- c) Physical storage became expensive and risky to hackers and syndicates; loss or damage of physical storage is a risk to the business
- d) The scalability of cloud storage is less expensive as you only pay for the amount of storage you use. It allows for streamlined processes and efficiency due to its ability to allow multiple users to work on one document from any location as long as they have Internet connectivity. It eliminates the issue of one person having the document stored on their physical computer and no one else can access it in their absence

The introduction of many of these digital technologies to SEs has different end goals/ benefits, with some gaining the following:

- a) Time efficiency because they can deliver products or services faster
- b) Financial cost reduction through incorporate of free technologies and free media
- c) Flexibility and scalability of cloud storage makes them more efficient and effective
- d) Increase in customer traffic and increase in customer satisfaction
- e) Online presence and visibility to build customer trust
- f) Increase in revenue and sales
- g) Better return of the investment made with the new technologies
- h) BPA of mundane processes

To summarise, the determined characteristics of DT are:

- a) Digital technologies
- b) People (Employees and Customers)
- c) Processes

5.2.2.2 RSQ 1.2 What are the business challenges for SEs to digitally transform?

Ask any organisation who have successfully implemented DT and they will tell you that the journey to digitally transform your enterprise is not for the faint-hearted. Academic literature and subject experts all agree DT is no easy journey and many of the SEs who attempted DT failed to successfully transform digitally. This again speaks to the fact that SEs face challenges such as: i) lack of financial resources; ii) lack of technology infrastructure; iii) lack of knowledge;

and iv) know-how as mentioned in the literature in Chapter 2. SEs, therefore, continue to do what they are best known for, namely: i) agility; ii) flexibility; and iii) informal processes. Most SEs do not resort to DT because they feel there is no need for them to either improve their existing business model or create a new business model. This is especially common in SEs that are born-digital as technology has always been part of their business model and forms the very core of their existence. Born-digital SEs are digital trend followers by nature, always on top of their game when it comes to new technologies entering the market. SEs believe that the introduction of new digital technologies evens out the playing field as digital technologies provide them with the opportunity to compete with their larger competitors in the market. The big question is, “Does digital technology really level the playing field as research?” There is still a steady decline of SEs closing shop and not surviving beyond two years. This trend is enhanced by the Covid-19 pandemic.

The introduction of new digital technologies is many times seen as a reactive method to either compete or to survive because a new competitor has entered the market causing a disruption or a larger competitor introducing a new business model disrupting the market. Many SEs do not have any formal organisational strategy but operates informally. Anything informal complicates things because if it is not well articulated; it is almost guaranteed to either never take off or fall flat sooner or later because:

- a) You cannot track if you achieve what you set out to achieve
- b) You are going into things blindly because the next step is always a mystery
- c) Not everyone will always remain on track or be on the same page with the initial goal set out to achieve
- d) Obtaining the buy-in from employees to see the same vision as the entrepreneur becomes difficult

For this reason, researchers such as Saldanha (2019), Westerman (2018) and Matt et al. (2016) state that DT is not about technology but a good, detailed DT strategy. Upadrista (2021) and Imgrund et al. (2018) state that there is a need to relook at a business model from a more formal perspective through a DT strategy and business process management system in order to:

- a) Successfully transform digitally should they embark on a DT journey
- b) Obtain better buy-in from employees
- c) Clear goal and direction on how to achieve it
- d) A road map with incremental attainable goals set with time frames when they must be achieved
- e) Ability to track results and goals attained

This can assist SEs to move away from their reactive behaviour to a more proactive behaviour where their strategy and business process management is documented formally. This will become a living breathing document that SEs can update and change to still have the agility and flexibility that SEs are used to, but just in a more structured manner. As mentioned above, SEs focus more on incremental improvements to their current business model by introducing new technologies. SEs therefore confuse digital strategy, which they are good at (due to their ability to remain on top of new technologies entering the market and following new technology trends), with that of a DT strategy.

Literature, according to Dang and Vartiainen (2020) and Bharadwaj et al. (2013), states that a digital strategy's prime focus is on the introduction of new technologies, where a DT strategy, according to Matt et al. (2016), focuses on digitally transforming the enterprise holistically, looking at:

- a) Transformation of leadership decision making should be easier for SEs than larger organisations as the reporting structure is not so complex, or even in some cases non-existent.
- b) Financial cost—because the report structure for SEs is not so complex as with larger organisations, the buy-in to get the required budget to cover the costs for DT will be approved faster.
- c) Organisational culture—DT fosters a culture of learning within the organisation with little to no resistance from employees.
- d) Employee skills and adoption—DT provides employees with the opportunity to acquire more technical knowledge and skills and to better adapt to the new technology tools introduced.
- e) Customer adoption—the customer is ultimately the reason why most organisations undergo DT; DT strategies can assist the organisation to help customers adopt in a simplified manner to the new technology tools introduced.

The challenge again is that SEs are very informal in their way of doing things and as already established with the organisational strategy under RSQ 1.2, any strategy informally introduced into any organisation lives a short life. A formal DT strategy is therefore recommended to SEs as a framework or road map that will proactively guide them to digitally transform and be prepared for any market disruptors. A clear distinction should be established though to not confuse a digital strategy with a DT strategy.

Correani et al.(2020) state that all strategies require a methodology that outlines the processes and procedures needed to:

- a) Effectively adopt the DT strategies, and
- b) successfully apply and implement the DT.

Keep in mind that DT itself is a journey achieved in phases. Literature therefore states that a business process management system is the key to mastering DT successfully. The characteristics of DT, which comprise people, technology and processes, together with the elements of DT strategies, are: i) leadership decision making; ii) financial costs; iii) organisational culture; iv) employee skills and adoption; and v) customer adoption, compliment the elements of BPM, which focus on strategic alignment, governance and policies, methods, technology, people and culture. BPM covers all the characteristics of DT and DT strategies and goes the extra mile to cover the governance, policies and methods needed to apply the DT strategies and successfully implement DT. As stated in the definition of DT, it focuses on the creation of new business models or the innovative improvement of existing business models with the assistance or introduction of new technologies. Vom Brocke and Mendling (2018) state that BPM looks at two important factors:

- a) Process improvement which is in line with the business model improvement of DT, and
- b) orocess re-engineering, which is in line with the creation of new business models in DT.

As displayed by the interview responses, enterprises' lack of knowledge about DT and lack of finance are two of the challenges of DT. There are other challenges identified by enterprises, such as the lack of i) expert support, ii) trust in technology applications, iii) skills and ability to DT and iv) not enough time to learn about DT. These challenges identified influence enterprises' ability to successfully DT. Sixty-six percent (66%) of enterprises see the lack of knowledge as the biggest factor to decide to DT. SEs stated that having a clear idea of DT expectations and benefits can assist with overcoming the lack of knowledge of DT.

When asked what the current/historical challenges of DT were, P8 said:

“90% of my clients are in Joburg they are very open to the technology using Zoom using the software getting the businesses online where I find in Cape Town people are much more we've got this culture where we still want to see people at the desk when we work we still want people face-to-face” (Appendix C8).

In summary, whilst challenges in DT are inevitable, SEs must find ways to navigate around those challenges. The usage of a DT strategy framework, a digital maturity assessment and a BPM system can help transition through the phases of DT.

5.2.3 RQ2: How can SEs efficiently organise, support and enable a DT strategy?

5.2.3.1 RSQ 2.1: What are the factors influencing the formulation, adoption and implementation of a DT strategy?

In an attempt to answer RQ 2.1, this research study searched to explore how a DT strategy can be formulated, adopted and implemented for successful DT. The research further sought

to explore what the key factors are that will be the deciding factor or that will influence the decision to formulate, adopt and implement a DT strategy in an enterprise. The pandemic has successfully managed to make the impossible possible through remote working. This persuaded many enterprises to pay more attention to digital technologies, which have become an essential part of their survival. SEs need to expedite any future DT plans they have to either improve or replace their business model with the help of new digital technologies. Managing this transformation requires DT strategies to successfully implement DT. Successful DT starts with the formulation and adoption of a well-defined and articulated DT strategy. This is supported by academic literature and industry experts who state that the lack of a clearly defined DT strategy is the leading cause of DT failure (Invonto, 2019; Hoberg et al., 2017). With that said, many researchers indicate that DT strategies are still in their early stages of academic research and require more attention to gain consensus of what the views, frameworks, conceptualisations and definitions of a DT strategy are (Trenkle, 2020; Mitroulis & Kitsios, 2019b; Chantias et al., 2019; Korachi & Bounabat, 2019a).

The answers derived from RSQ 2.1 provide a clear indication that SEs: i) are not fully aware of DT strategies; and ii) do not clearly understand what it entails; and the role it plays in terms of the implementation of DT. Two SEs had some idea of what a DT strategy is, although they could not fully articulate what it entails. Many of the SEs confused a DT strategy with a digital strategy or an IT strategy. The perception is that a DT strategy strategically focuses on new digital technologies only with the incorporation and usage thereof to improve the business model.

This is evident in some of the responses received from the Ps when asked what their understanding is of DT strategies. P4 mentioned that “it’s a streamlined process in which you can take manual tedious tasks and convert or use systems to help with bettering those tasks to increasing the workflow and productivity” (Appendix C4). P13 stated that “it’s a rollout plan that’s been researched so you can decide what’s going to work well for your business” (Appendix C13).

The findings indicate that the following factors influence the SEs decision to formulate, adopt and implement a DT strategy: improved time efficiency, increased productivity, clearly set out benefits, value creation, and a simplified process.

The lack of understanding DT strategies has a negative impact on SEs. This lack of understanding: i) makes it difficult to establish what are the factors that will influence their decision to formulate, adopt and implement a DT strategy; ii) makes it difficult to formulate, adopt and implement a DT strategy is unknown to SEs; and iii) creates an opportunity for upskilling or collaboration with skilled vendors to formulate a DT strategy. There is a need for

social collaboration among the subject experts and users because although the DT strategies look good on paper, it is likely to fail if the enterprise does not make an effort to understand the motivation, desires and needs of users of the new technology introduced. How to execute a DT strategy is key for a successful DT, which can be staggered in manageable phases.

5.2.3.2 RSQ 2.2: What are the digital opportunities to SEs for adopting and implementing DT strategies?

All enterprises are positively or negatively affected by their internal and external environment or the market in which they operate. As mentioned in the literature review in Chapter 2 (section 2.3.9), at the heart of any company is the strategy that is set for years. The strategies implemented assist leaders to develop improvement initiatives within the enterprise. A well-defined DT strategy, if implemented and executed strategically well with the assistance of a BPM, provides various digital opportunities to enterprises.

According to a research study done by the International Data Corporation (IDC, 2019:3), the following digital opportunities were identified from implementing a DT strategy:

- a) Digitally enabled operations—the ability to exploit data to make real-time decisions that can enhance value creation through better products.
- b) Intelligent digital workers—the automation of mundane tasks allows employees to focus on driving their energy on finding innovative and creative solutions to complex problems.
- c) Low code automation—allows enterprises with little to no coding knowledge to automate repetitive processes using already developed low code automation tools available.
- d) Information governance—how data are stored, protected, used and discovered builds trust in the enterprise with customers and mitigates risk in terms of regulations.
- e) Hyper-agile cloud solutions—cloud computing allows enterprises to be flexible and agile in their quest for value creation to customers by being readily available to deliver services.
- f) Customer experience platform—the ability to operate omni-channel and artificial intelligence-enabled technologies such as chatbots has become key drivers to uniquely enhancing customer experiences.

The findings of this study indicate that 42% of SEs want time efficiency gains through streamlined work processes as a benefit of implementing a DT strategy. Other benefits are: i) increase in productivity; ii) better internal structure; iii) simplified processes; and iv) a clear indication of benefits which is quite broad. P10 responded as follows on why their SE would consider formulating, adopting and implementing a DT strategy: “If it helps with my productivity

and it helps with my flow of work and it makes it easier and it helps with my customer user experience then definitely” (Appendix C10).

In summary, a well-defined DT strategy can provide a framework for SEs to explore and exploit the benefits of digital technologies on how to successfully implement DT in a structured manner through a BPM system.

5.3 Theme 2: The role of leadership decision making in the implementation of DT

5.3.1 Introduction

The role of leadership has become crucial for communicating and engaging with the various stakeholders involved in the DT (Porfirio et al., 2021). In SEs, leaders are required to be agile and flexible in their thinking to formulate a strategy that allows them to follow the digital trend (Fachrunnisa et al., 2020). This is to lead DT and navigate around potential barriers that influence the decision to formulate, adopt and implement a DT strategy or to totally steer away from it based on SEs needs and capabilities. These influential factors are based on different theories such as dynamic capability theory that assess the organisation's ability to navigate through challenges and how they “create, extend, or modify their resources in response to a rapidly changing environment” (Bygstad & Øvrelid, 2021:122). To successfully formulate and adopt DT strategies and then to implement DT, it is important that SEs fully understand and are aware of both concepts and base their authoritative decision on myths about DT. According to Aguiar (2020), DT is for leaders, not about being popular and having the know-how of technical skills. It is about having the right team behind you that supports the change and having a blend of core soft skills to understand change is not easy for people.

5.3.2 RQ1: What are the business processes required for SEs to digitally transform their business?

5.3.2.1 RSQ 1.1: What are the benefits and characteristics of DT?

As discussed in section 5.2, the characteristics of DT are based on people, technology and processes. Managing people through change means that the leader sets the tone by leading the change from the front. The leader is the point of contact for answers. This statement supports Klein (2020), who states that digital leaders have to steer the enterprise through the change and disruptive period of DT. The leader is the key decision-maker on which direction DT takes, what role the employees perform, how they perform it, and at what quality level. The leader leads the research and makes decisions about the technology needs of the enterprise to satisfy customer needs. Despite these demands, costs need to be reduced, decisions need to be made on i) software developed, ii) the purchase of software or hardware, including whether the software is a once-off purchase or monthly/yearly subscription, and iii) how many employees need licenses. The next decision for leaders after selecting an option for new

technology is to determine the process needed to incorporate the technology into their business model.

i) People

The ability to make good decisions and effectively communicate those decisions with the level of urgency it deserves is the key between accepting and resisting the change by employees. For many enterprises, in the past their attempt to embark on a DT journey was over before it began. The reason for this is because many enterprises lack a good vision and the articulation of that vision to its subordinates. Hamel and Scholes (1999:90) call these enterprises “genetically blind” enterprises due to their inability to see what the future holds and how to prepare for it. The exploration and exploitation of DT and its benefits is a decision that those in authority positions need to make sooner or later as the digital economy is rapidly changing. Unlike large enterprises, the hierarchy and the chain of command for SEs are not as complex. The final decisions come from the entrepreneur as the sole decision maker. The entrepreneur is the driving force not only to lead the change through DT but also to manage that change effectively whilst still steering the enterprise into the new direction. To successfully embark on the journey of DT requires that SEs form powerful social coalitions with the internal human resources available or with outsourced third parties that will assist with DT. From a management perspective, it is important to understand what the end goal is they wish to achieve, but also to draw on expertise within the enterprise for better buy-in to achieve the end goal.

Embarking on a DT journey is to:

- a) Improve or develop a new business model using digital technology
- b) Transform the leadership to make good calculated decisions with urgency
- c) Transform the lives of those beneficiaries of the change—the employees who will gain more skills and the customer who will receive better service or products
- d) Reduce operational costs and increase revenue

It came as no surprise that the responses from the Ps when asked their reason for introducing or wanting to introduce new technology to their business model was for financial gains. The lack of financial resources is one of the big challenges for SEs to digitally transform. A total of 35% of the Ps either wanted to increase their sales revenue or reduce their operational costs.

P3 introduced SAAS Software as a service, Dropbox, Google Drive and OneDrive into their enterprise:

“I do take advantage of this technology due to reduced costs as the billing model is paid as per usage and I was found that recurring expenses are much lower than traditional. This allows for increased storage and flexibility. It is also scalable as I can

pay for the amount of storage required and use it in an emergency backup plan” (Appendix C3).

People, human resources or end-users as a deciding factor for introducing new technology into the SE was the second-highest at 29%. Other factors for introducing new technology included customer satisfaction, risk mitigation, market share growth and data collection that allows for better-informed decision making, which makes up the remaining 36%.

ii) Technology

Many of these SEs are no strangers to new technologies and find more creative and innovative ways to reposition their brand, product and services to their customers. Some of the SEs even indicated their ability to build their own websites when asked how they use any of the following technologies: i) Mobile computing (e.g. mobile apps, tablets, smartphones); ii) Big Data/analytics (e.g. analysing/leveraging data, digitalisation of physical assets); iii) Social media/social networks (e.g. for marketing, contact with customers) and iv). Internet/networks (e.g. website, e-commerce, cloud computing).

P12 stated that “websites are the old technology but it’s certainly used largely, and widely for customers to have an online presence, so we develop websites we have four of our own in the business”. (Appendix C12). From the responses received the utilisation of cost-effective business mobile application software is exploited extensively by SEs as mentioned previously. Again, the financial aspect to reduce cost and increase revenue came through strongly as many of the Ps said they are exploring and exploiting other cost-effective alternative technologies such as Google Suite, Google Analytics, Google Drive, Google Docs, Google ads and Dropbox. From the technological aspect of DT, it was found that there is no shortage of digital technologies for SEs. This is also evident in the response received from P3 stating that on new technology, “it is seldom about the availability of technology, majority of the challenges are internal factors such as employee pushback, lack of expertise to lead digitisation initiatives, organisational structure, lack of strategy and limited budget” (Appendix C3). The availability and variety of digital technologies does not seem to be one of the main challenges for SEs to digitally transform.

iii) Processes

Managing the process of a DT journey is vital to the successful implementation of DT (Andriushchenko et al., 2020). The governance and policies guiding the DT journey should be well articulated to monitor the process as it transitions through its stages (Brown & Brown, 2019). Many researchers recommend a digital maturity assessment as an approach to establish exactly what the organisation’s maturity level is before starting the DT journey (Schallmo et al., 2020; An, 2019; Satoglu et al., 2018; Gill & VanBoskirk, 2016). As mentioned

in section 5.2, a BPM system is the master key to implementing a successful DT as it supports both the formulation and adoption of a DT strategy as well as the implementation of DT. There are processes required before selecting any digital technology especially because of the data it generates, the handling of the data, and how that data are protected in terms of regulations and legislation. The value creation of BPM as mentioned by Arsanjani et al. (2015:10–18) provides management with the much-needed support to cover the process aspect of management decision making.

These values are:

- a) Business agility—to remain competitive in the market.
- b) Visibility—integration of a visibility system that spans across the entire enterprise.
- c) Compliance—allows for storage and quick updates of regulatory and legislative policies with the ability to track changes made by all parties. Compliance rules are enforced on a BPM system with a notification when at risk of breaching the rules.
- d) Workforce efficiency—allows each employee to make their unique contributions to the process; this eliminates duplicate work, assists with decision making and sharing best practice.
- e) Process governance—creates consistency in the approval process at each stage of the DT journey.

The above provides a clear indication to SEs that any strategy can look good on paper, but if the execution of the strategy is not done to perfection, it might fail. The execution of a strategy requires i) effective communication, ii) involving all the stakeholders to obtain their buy-in, iii) ensuring that the digital technology selected speaks to the need of the enterprise and iv) making sure there is a methodology in place to perform the execution. This is navigating the avoidable challenges that might arise expectantly.

5.3.2.2 RSQ 1.2: What are the business challenges for SEs to digitally transform?

DT is a complex process, which is why many enterprises have failed in their attempt to digitally transform. One of the biggest challenges for digital leaders is not having a DT strategy as a framework to guide their thinking throughout the DT journey. Next to a DT strategy is the leader's inability to lead a DT from the front as one of the most influential role players. A DT strategy sets the foundation for the leader on how to holistically view every aspect of the enterprise. DT goes beyond technology, whilst digital technology tools are used to improve existing business models or develop new business models the actual DT journey is more than technology.

For leaders without a DT strategy the following challenges may arise:

- a) Lack of vision and not fully understanding why the enterprise has to digitally transform

- b) Changes of the DT failing is also much higher
- c) Without a DT strategy, the DT might become an expensive journey as there is no sight of a set financial budget for the DT
- d) Resistance from stakeholders and subordinates who do not resonate with the DT vision
- e) The leader has failed to assess the enterprise's digital maturity level to determine the readiness for DT in terms of IT infrastructure and internal expertise
- f) The current organisational culture does not allow for DT
- g) Lack of communication and failure to understand and involve sub-ordinates into the DT
- h) Lack of allocated time and wanting to complete the DT in one go
- i) Failure from the leader to fully understand the customer's need and how DT will create value for the customer

According to Kane (2019:46), the following DT challenges are the most difficult to resolve in many enterprises: "cultural", "talent", "leadership", "the strategy" and "the organisational", whilst the implementation of new technologies are the easiest of all the challenges to resolve.

As mentioned previously in section 5.2, findings indicate that SEs experience the following challenges with DT: lack of i) knowledge to DT; ii) finance and financial support; iii) industry expert support; iv) trust in technology; v) employee skills and ability; and vi) not having time to learn about the new technology. P11 stated that, "I think that the biggest hurdle is the barrier of entry, understanding what's available and then once you understand what's available being able to sort it and make sense of what would be most prevalent for your particular business" (Appendix C11).

To summarise, the challenges of DT for leaders can become very complex if i) it lacks a clear understanding of how to digitally transform, ii) it does not have a DT strategy framework, and iii) it is in conflict with the organisational culture. It therefore important that the leader has the capability and skills to lead a DT from the front with the urgency and importance it deserves. The leader sets the tone for any project and the employees feed off the leaders' energy. Failure to effectively communicate the change, involve and collaborate with employees, and not understand the clients' needs could lead to DT failure.

5.3.3 RQ2: How can SEs efficiently organise, support and enable a DT strategy?

5.3.3.1 RSQ 2.1: What are the factors influencing the formulation, adoption and implementation of a DT strategy?

The adoption of a DT strategy across the enterprise depends on the level of importance that the entrepreneur place on the strategy and on DT itself. According to Sweet and Daugherty (2021), leading change requires leaders that are go-getters, willing to part with the old business ways to drive and exert their future business vision. To lead this change, it becomes important

for leaders to fully comprehend their ability, capability and know-how to develop a DT strategy framework that guides the enterprise to successful DT.

Findings indicate that SEs lack knowledge and understanding of what elements make up a DT strategy. Not being well informed creates uncertainty and could lead to SEs not having the desire to formulate and adopt a DT strategy. It is important that SEs research and educate themselves to gain a solid understanding of how a DT strategy could assist their enterprise to enjoy the full benefits of a DT and how their position as a digital leader can influence it. A clear distinction should be drawn between the differences of a DT strategy, organisational strategy, digital strategy, and an IT strategy as the results indicate confusion between the various strategies, especially in terms of the mission of each strategy. This is evident in the responses received from the Ps when asked what their understanding of a DT strategy is. P3 mentioned, “A business strategy developed by an organisation to make use of digital technologies to create new or modify existing business processes, culture, and customer experiences to meet changing business and market requirements” (Appendix C3). P4 stated that “it’s a streamlined process in which you can take manual tedious tasks and convert or use systems to help with bettering those tasks to help with increasing the workflow and productivity” (Appendix C4).

Findings of this study also found that 67% of the Ps thought a formal DT strategy could assist the enterprises to be proactive to new disruptors entering the market. Twenty percent (20%) were not sure if a DT strategy could assist the enterprise in being proactive, while 13% did not answer the question due to technical issues.

Findings further show the following:

- a) None of the Ps had a clear organisational or business strategy in place.
- b) Fifty-three percent (53%) of the Ps indicated that they presently have an informal DT strategy in place, 20% indicated that they have a formal DT strategy in place, and 27% indicate that they do not have a DT strategy in place at all.
- c) P2 said, “I think yes, but it was informal because it was just me trying to explore how we can do things better and that’s how I found Zero and Mega but it wasn’t anything formal no... Yes, Informal and very flexible” (Appendix C2).
- d) Sixty-seven percent (67%) would consider formulating and adopting a formal DT strategy in the future, 20% said no because it does not apply to their enterprise, and 13% did not answer the question due to technical issues.

Findings further indicate that the following factors influence their decision to formulate, adopt and implement a DT strategy: i) it must support data analytics for better decision making; ii) it depends solely on the view of the entrepreneur; and iii) it must be viable to adopt a DT strategy into the enterprise.

P4 responded to the above: “Well look yes we'd definitely be open to an audit and maybe a strategy thereafter. I think anything that would help with increasing productivity and therefore allowing increasing time as well would definitely be vital and would definitely help the business grow as well” (Appendix C4). P5 mentioned said, “No, it doesn't apply to us because we're already digital but for our customers, we would definitely consider doing a formal strategy with them with a client where their size and revenue call for it” (Appendix C5).

To summarise, the lack of sound knowledge of what a DT strategy entails is strongly evident in the confusing and conflicting responses received from the SEs. This has an impact on their ability and capability as leaders of change to make well-informed decisions on the adoption and formulation of a DT strategy. Whilst some SEs have shown an interest in wanting to adopt and formulate a DT strategy in future, it is advisable that they first research the topic more in detail before attempting to formulate such a strategic document.

5.3.3.2 RSQ 2.2 What are the digital opportunities for SEs when adopting and implementing a DT strategy?

The adoption and implementation of a DT strategy provides SEs with a framework that outlines the digitalisation process of their business. The digitalisation of business processes allows SEs to explore and exploit new income streams as well as produce new value created products and services. Many of these digital technologies can generate massive amounts of data, which the leaders in SEs can analyse to create the following digital opportunities:

- a) Leaders can make more informed decisions and plan to better prepare for competitors
- b) Better insights into clients create an opportunity for more personalised marketing
- c) Identify processes to be automated and help increase productivity
- d) Create value through omni-channels to service clients on all platforms
- e) Cloud computing and the scalability of cloud storage create agility and reduce costs

There are many more digital opportunities that a DT strategy provides that can be mentioned, and the research literature supports this. According to Pontrelli (2021), these are the digital opportunities for enterprises:

- a) Improved security for data protection—how data are collected, stored and protected is becoming a high priority for enterprises to build trust with current and potential new customers.
- b) Data analytics—more focus on exploiting the insights and opportunities that data present to drive value creation and new products and services.
- c) Advertise and network—using free and paid tools to digitally market the enterprise and socially network with clients.
- d) Process automation—automating mundane daily activities saves time and money for enterprises to deliver products faster and be more agile.

- e) Integration and unified software tools—this allows the various technologies of enterprises to be integrated and work as a unit.

Findings indicate that there are various digital opportunities for SEs to explore based on trends of the new technology, with some of it being: i) process automation; ii) more networking through social media platforms (e.g. TikTok videos); iii) application programming interface (API) software; iv) plug-ins as extension programs; v) cloud computing for storage and agility; and vi) robotic processing automation for chatbots. SEs indicated that they do make use of digital tools such as Google Analytics for decision making; however, there is still the need for awareness and understanding of how to store and protect the privacy of the data whilst exploiting digital opportunities.

P12 said,

“So how privacy is managed with WhatsApp to how ads are monetised on Facebook, how targeting is implemented by LinkedIn and the algorithms to match like across Google. I think in the future is if you just look at your own behaviour I’m not sure how you use voice to search for things on your phone when you’re driving, so as behaviour changes that become the trend. I think there will be in the industry, there will be and there has been a growing need for data as you’ve also highlighted in your questioning but not just so data in the raw format is meaningless so it’s more for meaningful data or should I say information which then feeds into other areas like personalisation and whether we want to build experiences across mobile or desktop or various forms of access devices” (Appendix C12).

In summary, digital technologies provide enterprises with the digital opportunity to become more competitive, agile and create value for customers, This requires a well-defined DT strategy that provides a framework for SEs on how to execute their plan to gain the maximum benefits of the opportunities presented by digital technologies through digitalisation.

5.4 Theme 3: DM transformation as a tool for value creation in DT

5.4.1 Introduction

The determination of the influence of DM through the usage of digital technologies and media is a key process in DT to create more online visibility and presence on the Internet for SEs. The process and strategy around traditional ways of marketing have evolved over the years and digital technologies have taken a company brand, service or product which is paper printed, broadcasted, bill boarded or telemarketed, and digitally transformed it. Whilst DT uses new digital technologies to assist with the creation of a new business model as a whole or to holistically improve the existing business model, the digital market uses digital technologies to focus on a specific business area within the DT process. It has become vital for SEs to know

and understanding i) if customers are interested in a service or product, ii) how many customers are interested, and iii) gaining insight into the customer needs and understanding how to cater to these needs.

According to Chaffey and Ellis-Chadwick (2019:44), SEs can use a DM plan as a short term tool or solution to support their DT by explaining “the major changes needed for processes, resourcing, structure, media investment and proposition development”. Saunders et al. (2019) explain that DM platforms were created to collect various sets of data earmarked to focus on certain groups of customers by messaging them timeously with relevant information that may assist with informing their purchasing decisions. The question is to know to what extent SEs are aware of how DM can support a DT strategy and successful DT. Ertuğrul (2021) states that DM assists newly transformed organisations to excel through strategies, thus making DM a key process in the holistic transformation of the organisation’s processes.

5.4.2 RQ1: What are the business processes required for SEs to digitally transform their business?

5.4.2.1 RSQ 1.1: What are the characteristics and benefits of DT?

Understanding the customer’s needs and preferences has become the centre focal point for enterprises striving to create more value for customers through digital technologies. This highlights the important role DM plays, through the usage of cost-effective technologies such as business mobile applications, social media and the Internet, in value creation. As mentioned above, DM can serve as a short term tool to cost-effectively compete in the market with larger corporates to deliver value to customers as it is not a stand-alone solution to replace DT. This is supported by Ziółkowska (2021), who states that DM tools are vital for SEs to build sustainability, and DT is needed to remain competitive and continue delivering value to customers.

According to Mishra et al. (2021:814), DT is not about merely going digital; it also requires good “DM and selling strategies, cooperation from the employees, innovative and unique line of products, risk-taking capability and latest technology”. DM requires: i) people in the form of employees with technical skills and the ability to retain existing customers and convert new potential customers; ii) digitisation of processes through SEO automation; and iii) technologies such as CRM, artificial intelligence and Big Data that will assist marketers with transforming their marketing (Nappi, 2021; MeloviÄ et al., 2020; Kotler et al., 2020; Thomas, 2020; Chaffey & Ellis-Chadwick, 2019).

i) People

An organisation cannot exist without people to operate the technology and customers for whom the products and services are developed (Kingsnorth, 2016). According to Kotler et al. (2020:340-341), employees require the following skills in the new era of DM:

- a) “Be an artist: able to think independently, observe from new perspectives and propose innovative modes.”
- b) “Be a scientist: able to perceive, conclude, verify, optimise, induce and seek knowledge.”
- c) “Be an engineer”: able to cooperate with the team to launch new products and schemes and to solve problems.”

Smith (2020:197) states the importance for existing staff to be trained and new employees to have the skills to use “Systems & Processes (e.g. marketing automation) Guidelines & Checklists (e.g. social media usage) Mini Action Plans (e.g. project plans) Constant Optimisation (e.g. beta testing)”. Findings on the characteristics and benefits of DT demonstrate that for most SEs, the DM tools are beneficial because 43% said it is cost-effective, 27% said it allows SEs to be competitive in the market, and 11% indicated that DM provides them with an online presence on the Internet.

P12 said,

“I think that's a big lesson for a lot of big corporates and also small to medium businesses which are to have clear communication speaking through sort of protocols and steps for adoption of a piece of technology with all the people involved stakeholders and developing a clear plan the plan needs to include training and onboarding of new technology so that when it is implemented the car can be driven it's not just the car that's sitting in a parking lot that nobody knows how to drive” (Appendix C12).

ii) Technology

There has been a demand for enterprises to be present online, but the paradigm shift for a more active online presence is also spurred by the Covid-19 pandemic. According to Farrar (2010), the evolution of technology shapes how organisations communicate with consumers and how marketing evolved from traditional marketing to DM. Technology influences both employee and consumer behaviour through: i) the Internet that globally broke down for organisations to enter international markets; ii) technology that shifted buying power to consumers by providing access to a wider variety of online stores; and iii) instant consumer feedback, which helps shape products and services based on consumer behaviour (Sawicki, 2016).

Dave (2021:3-34) provides the following list of crucial DM technologies for SEs:

- a) “AI-Powered Optimisation Artificial
- b) Programmatic Advertising Programmatic
- c) Conversational Marketing
- d) Chatbots
- e) Personalisation
- f) Video Marketing
- g) Social Messaging Apps If
- h) Live Stream Shopping
- i) Omnichannel Marketing”.

Peter and Vecchia (2021) argue that the adoption of DM technologies is crucial for the survival of SEs. There is a need for SEs to understand the full advantage of incorporating DM tools into their DT strategy. There is also a further need for SEs to understand the disadvantages of not making DM tools part on their DT journey.

P15 said:

“So now for example Facebook ads is the in thing. Previously you needed to create the ad yourself and you needed to think about how your customer thinks. Now you can use other tools as I’ve seen you can start using like artificial intelligence which will create your ad for you based on information” (Appendix C15).

iii) Processes

DM has the ability to automate many of the operating processes, curate content, schedule posts and engage with customers through the marketing process transition, taking it from “marketing planning to marketing execution and marketing performance valuation” effortlessly (An, 2019:138). Processes are an important part of DM and incorporating new processes such as “automated, always-on communications like Programmatic Ads to build awareness, AI-based Personalisation” into the organisation is to provide one holistic single view of the customer (Smith, 2020:143). DM processes use customer characteristics, customer behaviour data and campaigns as tools to nurture and convert potential customers for business growth (Jasniewski, 2015).

P8 said:

“If you look at traditionally or if a small business has to market their products it's expensive to print media, for example, it's expensive if you want a section in a paper or put something on a billboard or put something on TV or radio you're going to pay a lot of money right so it's expensive for small businesses you know for SEs and so what DM does it levels the playing field it basically gives a small company like mine the same playing field” (Appendix C8).

To summarise, DM through the usage of tools and strategies, is a process step within the holistic DT journey. Like DT, the characteristics of DM can be grouped and categorised into people, processes and technology. The technical skills and abilities required for DM are skills that can be utilised for DT. Technologies such as artificial intelligence and machine learning are common in both DM and DT. Furthermore, like DM in DT, these technologies are used to digitalise and automate mundane processes.

5.4.2.2 RSQ 1.2: What are the business challenges for SEs to digitally transform?

Whilst the DM tools provide SEs with an opportunity to compete cost-effectively (Ziółkowska, 2021) it would be naive to think that DM does not present its own challenges (Hanlon, 2019; Dodson, 2016). The ever-growing demand of customers and the large client base that DM reaches mean that SEs need the digital capability to become very responsive in managing the customer relationship whilst still creating value. As mentioned previously, DM tools create and store a huge amount of data. Whilst cloud computing is a cost-effective option because of scalability, there is still the risk and security factors of keeping these customer data protected in terms of regulatory and governance (Sunyaev, 2020; Benlian et al., 2018). This statement is supported by literature found on the challenges of DM (Malesev & Cherry, 2021; Chaffey & Ellis-Chadwick, 2019; Royle & Laing, 2014). According to Linchpin (2021), some of the challenges SEs can face with DM are: i) compliance to data privacy regulations; ii) not having omni-present channels to support customers over a variety of platform; iii) not fully understanding the customers; and iv) limited access to customers.

Findings on the challenges of DT indicate the need for SEs to be aware and have an understanding of the challenges of DM, especially around the risk related to data privacy. Whilst SEs stipulated the benefits of DM tools, only one SE mentioned data privacy. P12 said: “Data has become an asset and there are legislative requirements around how data is stored and also in compliance with POPI or POPIA. Thus storing and the way data is stored and accessed and how it is managed becomes important for anybody that sits with data” (Appendix C12). There is no perfect technology out there that does not also come with its own challenges. SEs need to be able to navigate their way around these challenges to still have a successful DT.

To summarise, DM transformation can become challenging for SEs if they are not fully aware or do not have an understanding of the possible challenges that occur on their journey to DT. SEs also need to be aware of the purpose behind DM tools, the data it collects, and how it stores and uses data to ensure that data privacy is maintained at all times.

5.4.3 RQ2: How can SEs efficiently organise, support and enable a DT strategy?

5.4.3.1 RSQ 2.1: What are the factors influencing the formulation, adoption and implementation of a DT strategy?

One of the key elements of a DT strategy is the transformation of how customers adopt new or improved business models and the value creation that these new digital technologies provide. DM is about getting the attention of potential clients, making them see the value in the product or service and converting those potential clients into actual clients. The value creation to customers through products or services is common in what both DT strategy and DM set out to achieve. With DM as a building block towards a holistic DT and DT strategy as the foundation to implementing a successful DT, the value creation element is an influencing factor to formulate, adopt and implement a DT strategy. According to Westerman (2018:2), emphasis should not be placed on the technology element of DT, but rather on the transformation element as “technology doesn’t provide value to a business. It never has (except for technology in products). Instead, technology’s value comes from doing business differently because technology makes it possible”.

Findings indicate the need for SEs to understand the elements of a DT strategy and how it could possibly assist with value creation in DM. Some of the factors mentioned by SEs that will influence their decision to formulate, adopt and implement a DT strategy are: i) costs effectiveness; ii) increase in productivity; iii) time efficiency; iv) the ability to analyse data; v) increase revenue; and vi) to allow for better communication.

P4 claimed that, “It would definitely be productivity and costs definitely. Obviously the costs should not out way the value it should definitely provide value to the business as well” (Appendix C4).

In summary, formulating, adopting and implementing a DT strategy framework as the foundation of a successful DT can guide SEs to take advantage of the value creation element of DT strategy that could possibly assist with the conversion of potential clients to actual clients.

5.4.3.2 RSQ 2.2: What are the digital opportunities for SEs to adopt and implement a DT strategy?

As mentioned above, value creation is the common element of both a DT strategy and DM. How value is created is determined by the enterprise’s digital capabilities to use these new digital technologies. Adopting and implementing a DT strategy framework outlines the technology strategy that the enterprise will use and acquire in the future. At the heart of DM is ICT that interlinks all other digital technologies, including SEO, Google ads and pay-per-click ads. Personalised marketing technology, conversational marketing technology and omni-channel technologies are some of the trending digital technologies according to industry

(Brenner, 2021; Dave, 2021; Haughey, 2020). These technologies provide enterprises with insightful information and opportunities to understand the customer's behaviour and buying patterns and to provide a personalised service.

Findings on the digital opportunities for SEs to adopt and implement a DT strategy indicate a need for SEs to fully understand the customer's needs and cater to the needs to remain competitive in the market. Findings on the digital opportunities for SEs to adopt and implement a DT strategy also indicate a need for SEs to adopt a formal technology strategy aligned with the organisational strategy and the DT strategy as new technologies and actually assessing the enterprise's digital capabilities do not come to the same conclusion.

In summary, ICT provides SEs with the opportunity to create value to customers on a personalised level, but not having a DT strategy framework or some technology strategy means there is no clear pathway of their future technology plans and how they are hoping to exploit it to gain a competitive advantage.

5.5 Theme 4: Business Process Automation (BPA) in support of DT

5.5.1 Introduction

SEs need to realise the full benefits associated with DT technologies, such as BPA, that support them in automating manual processes. These processes are the daily mundane and repetitive tasks and activities that move an enterprise towards achieving its goals. Literature and industry experts identified BPA as a key factor that assists in simplifying daily processes (Siderska, 2020; Babar & Yu, 2019). This allows employees to focus on innovative and creative ways of making the enterprise efficient and effective. SEs should however not confuse two very clear distinct concepts, which are BPA with BPM and digitalisation with digitisation. According to Blokdiik (2008:87–88), for BPM “it is necessary to define all the business processes running inside the organisation first before there is a need to automate”, and for BPA “there is first a need to automate the current process before business analysis should take place”. SEs should also not confuse BPA with digitalisation, as digitalisation in simple terminology is the process of moving from paper base to digital, which afterwards still require some human intervention. BPA is the next step after digitalisation, which takes the digitalised process and automating it so that no human intervention is needed at all from the start to end of the process.

5.5.2 RQ1: What are the business processes required for SEs to digitally transform their business?

5.5.2.1 RSQ 1.1: What are the benefits and characteristics of DT?

i) People

Whilst BPA is a hot topic, it is worth mentioning that not all tasks are good fits to automate or are meant to be automated. Especially tasks that are complex as a failure in automation will just further complicate the process as current employees might not know how to perform the tasks manually. Research done by Harmon (2019) as well as Chiou and Lee (2021) supports this statement and suggests keeping some human intervention in complex tasks. The benefits of SEs automating are that some of these processes also assist with reducing the overall operational costs. However, the ultimate recipient and the reason why enterprises are becoming efficiency-driven to create that value for the customer must be kept in mind.

ii) Technology

The automation of business processes has strongly influenced technology vendors over the years to produce various automation software to simplify life for the organisation and its employees (Babar & Yu, 2019; Blokdiik, 2008).

Kirchmer (2017) states that many organisations' business processes are supported by standard software technologies to automate their daily operational tasks, including:

- a) Enterprise resource planning (ERP)
- b) Supply Chain Management (SCM)
- c) Customer Relationship Management (CRM)
- d) Service-Oriented Architecture (SOA)

Cummins (2017) states that advanced technologies such as smart technologies and wireless devices further allow SEs to exploit these technologies from anywhere in the world through the Internet.

iii) Processes

BPA is in the prime of its life cycle with every second enterprise investing their current business models to find mundane processes that can be automated. Chatbots incorporated with algorithms and knowledge management systems are popular automation processes that many enterprises introduced to assist clients with questions 24 hours a day (Sari et al., 2020; Ahmad et al., 2018; Markoski et al., 2018; Naude & Chiweshe, 2017). Enterprises are continuously trying to become more agile and flexible by looking at ways to remove important but repetitive tasks by automating these (Ernstsen et al., 2021). The quest for SEs is to find those particular

tasks within the enterprise and do a digital assessment to determine if these tasks or activities can be automated (Ben-Larbi et al., 2020; Korachi & Bounabat, 2019b).

According to the responses of the Ps, some SEs are familiar with BPA and some have heard of automation but are not familiar with the automation process. Below are some of the responses received from Ps when asked the question what DT opportunities their enterprise pursued: P3 stated that “I have used technology to automate most of my processes and use online schedulers, software, and online tools to make my life way simpler which has helped me improve and modernise how I do things” (Appendix C3). P4 said, “I’m not sure if you’re familiar with what a CMS is, but it’s pretty much just like a little business portal that we have that has access to all the things we need and sort of automates a lot of the manual work that we do” (Appendix C4).

In summary, SEs cannot clearly differentiate between digitisation, digitalisation and BPA. These terminologies are used interchangeably by SEs to refer to the process of automating manual tasks.

5.5.2.2 RSQ 1.2 What are the business challenges for SEs to digitally transform?

The research findings indicate that the financial cost aspect is still one of the biggest influencing factors for SEs to decide whether to incorporate any digital technology into their enterprise. Findings on the challenges of DT show that SEs are aware that not all technologies are free; some need to be paid for. This raises the following questions to SEs:

- a) What problem is the new technology going to solve?
- b) Is the time right to pay that high price for a particular technology?
- c) What is the life span or how quickly will it be replaced by new technology?
- d) Is the technology payable in Rand or is it Dollars only?
- e) What is the return on investment prospect?

P5 responded with the following as criteria and challenges:

“I think you’ve got to consider the cost of course there’s always the cost component and then we also would highly consider the integration abilities with our existing systems. So you know if we’re bringing on a new system and we’ve got to make sure that it speaks to our CRM, it speaks to our billing system, it speaks to our analytics systems and so integration systems is a very important one for us after costs” (Appendix C5).

The above indicates that whilst researchers state that BPA can decrease operational costs (Rizk et al., 2020), concerns around financial costs are still high for SEs who in general face a lack of financial resources when it comes to DT. The financial cost concern for SEs is a clear

indication that a solid understanding is needed by SEs of the digital technologies available before selecting one that might not meet all their expectations. A digital maturity assessment can assist SEs with determining the enterprise's level of readiness for the new technology. Not collaborating with employees before selecting a digital technology could spark resistance to accepting the new technology. Failure of the new digital technology to integrate with the existing technologies can become costly for SEs. Failure in automation is also a reality for enterprises, so SEs need to have that little escape to still be able to do the process manually if need be. The testing of new digital technology before implementation is very important so as to minimise any potential risk to the enterprise.

P6 stated as a challenge, "People want shortcuts and they want cheap, especially in the smaller business or medium-sized business space. They want to do the bare minimum but get the biggest results" (Appendix C6). P5 argued, "So the first one is the obvious, cost is obviously a huge challenge for many businesses especially the small informal businesses and then resistance to change you know people are creatures of habit and they don't want to change and then there's also the obvious concern over the loss of jobs" (Appendix C5).

In summary, SEs are exploring and exploiting automation to some extent, but the financial cost factor is still hanging like a dark cloud over their heads. There is a need for a digital maturity assessment process in SEs as this could assist with those important questions asked about the financial costs assigned to new technologies.

5.5.3 RQ2: How can SEs efficiently organise, support and enable a DT strategy?

5.5.3.1 RSQ 2.1: What are the factors influencing the formulation, adoption and implementation of a DT strategy?

The automation of mundane tasks is a popular exploration for many enterprises wanting to streamline their processes, reduce costs and deliver value to customers. Researchers and industry experts however warn enterprises against automation exhaustion and the complexity surrounding automation failures (Vom Brocke et al., 2021; Illéssy et al., 2021; Tyulin & Chursin, 2020). This requires enterprises to not just automate but automate strategically and carefully research which processes can indeed be automated. A DT strategy framework through its value creation element can guide SEs on which current and possible future processes can be considered for automation and whether complex coded automation or low coded automation should be used. According to Vom Brocke et al. (2021:23), a large number of enterprises have identified BPA as the potential driver to improve their time efficiency and the quality of their products.

Findings on the factors influencing the formulation, adoption and implementation of a DT strategy indicates that SEs will formulate, adopt and implement a DT strategy to support BPA

to i) create value for customers and ii) enhance the overall customer experience. P14 said, “Does it help with my customer user experience, then definitely yes” (Appendix C14). There is a need for SEs to especially explore and understand BPA since technology has evolved drastically in terms of automation. Developers have made great progress, especially with tasks that are easy to automate where low-code automation will assist SEs who are not too familiar with coding.

In summary, BPA has evolved over the years and has become easier and more cost-effective for SEs with little to no technology background of coding. With that said, like any other software, the market is oversaturated with technology, which makes technology research and a DT strategy framework vital to understanding the enterprise’s needs.

5.5.3.2 RSQ 2.2 What are the digital opportunities for SEs to adopt and implement a DT strategy?

A DT strategy framework is a sensible approach to understand and assess which processes can be considered for automation and which are not ready at present but would be ready in the future. This provides SEs with the digital opportunity to automate processes in manageable bits and still create value for their customers. BPA does not merely contribute to the overall operational expenditure (OPEX) reduction, it also allows employees the opportunity to focus and find solutions for complex processes that automation cannot easily solve. BPA allows for a more innovative and creative organisational culture where employees are more productive, agile and flexible in creating value for customers. Organisations specialising in BPA are now offering enterprise BPA Cloud, which is meant to save on capital expenditure (CAPEX) and being reliable, agile and flexible with how information is managed (Kirongo, 2021).

The findings from SEs indicate that the formulation, adoption and implementation of a DT strategy in support of BPA will provide them with opportunities to be i) at the forefront of technological change, ii) become a disruptor in the market, iii) become an innovator and iv) it gives them the chance to sustain their business, especially during the Covid-19 pandemic. P8 mentioned, “I’d say that the way that I see it if you look at South Africa if you don’t have a DT strategy for your organisation for your small business in the next year then you might not be there the next year” (Appendix C8).

In summary, a DT strategy framework to guide BPA can provide SEs with opportunities to better position themselves in the market whilst reducing both OPEX, becoming more flexible and agile, and fostering an innovative and creative organisational culture. Established organisations offering low-code process automation software and BPA Cloud computing have simplified BPA, thereby enabling employees to focus on solving the problem.

5.6 Theme 5: The financial aspects of DT

5.6.1 Introduction

The determining factor for SEs to embark on a fully DT journey is influenced by various factors as mentioned previously. The main factor for SEs is the costs involved in DT. If the technology is not free, then how much will it cost to purchase and how and when will it yield a return on investment? The financial ability of an SE has a direct influence on the urgency to DT (Ghobakhloo & Iranmanesh, 2021; Vogelsang et al., 2019). SEs with a lower financial turnover tend to place more emphasis on cost reduction and revenue increase than the long term benefits of DT. The focus is mainly on incremental changes, as mentioned previously, in an attempt to remain relevant and survive in the market. According to Trenkle (2020), a financial assessment is key for those SEs with lower financial turnovers to avoid DT failure. The level of understanding by SEs on the financial commitment to DT is important before attempting to fully transform digitally. What it entails to DT and the level of eagerness to embark on the DT journey could influence the willingness of SEs to allocate a financial budget to DT (Alberti & Pizzurno, 2017).

Matt et al. (2015) and Karltorp (2017) both identified finance as one of the potential barriers to DT, but placed more emphasis on the lack of a good strategy as a barrier to DT. The question to know is to what extent a well-defined DT strategy may assist SEs to overcome the financial aspect of implementing DT.

5.6.2 RQ1: What are the business processes required for SEs to digitally transform their business?

5.6.2.1 RSQ 1.1: What are the benefits and characteristics of DT?

The complexity of having to juggle every demanding customer whilst remaining competitive requires that enterprises continuously find innovative and creative ways to deliver value through their products and services. Financial gain through digital technologies is normally seen through CAPEX drastically decreasing with OPEX increasing (SITA, 2021; O'Brian et al., 2019). This means enterprises are required to constantly explore new digital technologies as enablers to the development of new or improvement of their business model through the digitalisation and digitisation of business processes. How urgent and how willing SEs are to allocate financial resources to the DT is depended on the value that the entrepreneur place on digital technologies and the transformation process.

According to Tarute et al. (2018:375),

the benefits of DT for SEs can include “improved process efficiency (time and cost savings) and quality (reduced error rates), increased staff productivity, better customer satisfaction, easier access to new markets, strengthened business relations with big companies, ensured business agility, higher return on investments in ICT, reduced

administrative overheads and a greater focus on core business and wider market opportunities, such as source from a more extensive network of suppliers, and find new customers in new locations”.

i) People

The pandemic brought about a major shift in how people work, which resulted in employers searching for employees with digital experience, and candidates are looking for employers who will train them (Bateman, 2022). There is however a growing digital skills gap caused by the digitalisation of processes (Salesforce, 2021). Mugge et al. (2020) state that it is important for companies to invest in i) hiring and attracting the correct talent and ii) invest in training current staff to transition through the digital levels of maturity. According to Feijao et al. (2021), the lack of digital skills impact organisations globally placing both large and small at a competitive disadvantage which could accumulate to almost “\$11.5 trillion” missed business opportunities. Centea et al. (2020) believes that the lack of trained employees can become an obstacle for organisations to fully capitalise financially on their technology investment.

ii) Technology

The ability to access new high tech technology is easier for SEs these days as the cost of technology has significantly been reduced (Lemmer, 2021; Thomas et al., 2021; Kinitzki et al., 2019). Investing in modernised technology is a key differentiator for organisations to remain competitive and different from their competitors (Nwankpa & Merhout, 2020). Butt (2020) states that it is important for entrepreneurs and managers to understand the benefits of technology to the organisation and the conversion of those benefits into monetary value.

iii) Processes

Modern technologies have improved the quality, speed, and efficiency of financial processes, reducing the cost of information and other transaction costs (Chicu et al., 2019). According to Moker (2020), new financial technology is incorporated to improve the overall customer experience and to either enhance the existing financial processes or develop a new financial process. Li (2021) argues the importance for SEs to revolutionise their financial processes through technology because it will i) prepare SEs for the high external financing costs by reducing costs, ii) ease financial constraints faced by SEs, and iii) encourage SEs to transform digitally through technology.

Findings on the characteristics and benefits of DT indicates that some of the benefits gained by SEs from introducing new technologies into their enterprise, are: i) cost savings through time efficiency and automation of processes; ii) better return investment; and iii) increase in revenue.

P3 said,

“I do take advantage of this technology due to reduced costs as the billing model is paid as per usage and I found that recurring expenses are much lower than traditional. This allows for increased storage and flexibility. It is also scalable as I can pay for the amount of storage required and use it in an emergency backup plan” (Appendix C3).

In summary, digital technologies have evolved over the years and whilst DT is more about the transformation than the technology, the technology is the link between the enterprise’s business process, the financial costs and revenue and the client and how value is created using digital technologies.

5.6.2.2 RSQ 1.2 What are the business challenges for SEs to digitally transform?

One concern most SEs have when they hear the words DT is financial costs. Whilst this is one of the most common concerns among SEs, a paradigm shift was needed when they suddenly found themselves amid a world pandemic. Delaying DT due to financial constraints and any other reason is no longer an option. Many SEs are in survival mode, which means pulling out all stops and resources to survive the pandemic. Whilst financial cost is a genuine concern for most SEs and a barrier to DT, one cannot ignore the benefits that accompany many of the digital technologies that can assist SEs to drastically reduce their capital and operational costs. According to Everett (2021), DT can be a very complex but not impossible process, although in most cases SEs think it is costly (often not true), and they lack confidence, skills and abilities, which are often the biggest barriers. Everett (2021) further adds that SEs should see DT as an investment into the enterprise and not as a financial cost.

Findings on the challenges of DT indicate the need for SEs to gain a better understanding of the processes of successful DT and assess their skills and ability to navigate around the barriers of DT such as financial costs. There is also a need for SEs to explore the digital technologies available on the market that could assist with driving down operational expenses. P1 argued that “companies don’t really understand the benefits of DT. Most companies expect sudden benefits from DT, but it is actually mostly long-term benefits” (Appendix C1).

In summary, lacking vision and the ability to lead a DT may become overwhelming for leaders, which impacts on dealing with the people, processes and technology aspects of DT. People and customers may resist the change because they do not share the same vision as the leader, The new process should make people’s lives better on harder, so new technology should be simple to under and not over complicated. Failure at the people and process aspects and be financially costly to the enterprise even if they purchase the best technology on the market.

5.6.3 RQ2: How can SEs efficiently organise, support and enable a DT strategy?

5.6.3.1 RSQ 2.1: What are the factors influencing the formulation, adoption and implementation of a DT strategy?

A good strategy that is well-defined and well-executed wins every time, irrespective of whether it is a large, medium or small enterprise. DT is a unique business process with many associated complexities. If executed strategically and deliberately, it can mean great success both financially and in market growth for SEs. If done flimsy, it can mean great losses or even the closure of an enterprise. DT is no longer a 'nice to have' anymore for enterprises as it has become a 'must-have' to survive (Custers, 2020). This is where a DT strategy would provide the framework to "coordinate, prioritise, and implement" (Chantias, 2017:16) DT to exploit its full futuristic benefits, to get a good return on investment.

For SEs in the early stages of their digital maturity level DT and the adoption, formulation and implementation of a DT strategy can become very overwhelming (Aguiar, 2020). As already mentioned, the capability and skills barriers from the leaders can result in leaders believing in myths that a DT strategy is not important and that just bringing in new technologies drives their competitiveness.

Findings on the factors influencing SEs' decision to formulate, adopt and implement a DT strategy indicate that 67% of SEs have some understanding of a DT strategy and believe that a formal DT strategy can assist SEs to successful DT. Twenty percent (20%) of SEs are indecisive about a formal DT strategy and believe formulating a DT strategy can be very expensive for SEs as it needs to be outsourced. Six percent (6%) of the SEs do not believe that a formal DT strategy is applicable to SEs at all. One SE could not answer the question due to technical issues. P15 commented that, "I think if I had to get someone the cost. I think that would be a major influence is the cost how much it's going to cost me and will it give me a good return on my investment. I think that that is the two things" (Appendix C15).

In summary, capabilities and skills are very important as it is the determining factor on how confident the leaders are to formulate, adopt and implement a DT strategy to successfully lead a DT. The inability to lead a DT can become costly to enterprises, for not fully understanding the reason for the investment in a DT strategy and DT and may lead to leaders placing emphasis and focusing on digital technologies more than the actual transformation. Saldanha (2019) reports that this can lead to changes in the business model, but the new business model might not be sustainable without a DT strategy framework guiding it.

5.6.3.2 RSQ 2.2: What are the digital opportunities for SEs to adopt and implement a DT strategy?

As established previously, DT is an opportunity for SEs to financially invest in the enterprise and not see DT as a financial cost. Muggah and Rohozinski (2021) state that globally SEs are seizing the opportunity either to compete or to disrupt the markets by investing a huge amount of financial resources into digital technologies. The estimated investment for 2021 alone to DT by SEs globally are between 608 and 684 billion US dollars (Mlitz, 2021; Ravindran, 2020). This indicates the digital opportunities for SEs to invest money into digital technologies and DT. The question is what are these digital opportunities and how do they relate to a DT strategy? According to Aguiar (2020), digital opportunities are nested in a simplified and attainable strategy that is full of incremental opportunities clustered together to make one big opportunity. The drive for lower data connectivity costs in South Africa will make it possible for SEs to take advantage of ICT, be agile and flexible on multiple channel platforms. Digital Technologies Mobile computing (e.g. mobile apps, tablets, smartphones), (Big) Data/Analytics (e.g. analysing/leveraging data, digitalisation of physical assets), Social media/social networks (e.g. for marketing, contact with customers), Internet/networks (e.g. website, e-commerce, cloud computing) have contributed to driving down costs in enterprises.

Whilst some SEs acknowledged that a DT strategy framework would be beneficial for them, some SEs still expressed their doubts on how formulating, adopting and implementing DT strategy framework could benefit their enterprise holistically. P3 said, "I don't think it is necessary to have a formal strategy in place, I do however feel that in bigger organisations it is imperative to have this in place for the whole organisation to be on the same page and focused on the same goal" (Appendix C3).

In summary, digital technologies, if used to their full potential, can be of financial benefit to SEs by increasing productivity, automating mundane tasks and storing data on cloud storage, ICT, multiple channel platforms, 5G networks and data analytics have made it possible for employees to be more flexible and agile, to be creative and innovative towards new products and services to drive up sales.

5.7 Theme 6: The influence of digital technologies

5.7.1 Introduction

A steady but rapid stream of new technologies is consistently flooding the market providing SEs a variety of choices to explore. Enterprises need to explore and exploit digital technologies through digitalisation and digitisation to determine how extensive they can gain benefit for finance, product or service. Based on the value that SEs place on technology determines how responsive they are to new digital technologies and the possibilities it presents. The criteria on how these digital technologies are selected have been studied by researchers in the past who

classified these criteria based on various innovation theories such as TOE, DOI and many more. These exponential digital technologies from the Internet of Things (IoT), Artificial Intelligence, Big Data, cloud computing, robotics, 3D printing, social media application, business mobile applications, and virtualisation. As mentioned previously digital technology is seldom a problem for SEs since their agility and flexibility allow them to continuously follow up new digital technology trends. These digital technologies enable enterprises to either be the disruptor or be disrupted with their ability to creatively and innovatively improve existing or develop new services and products for the target market.

According to Ismail et al. (2014:54), more and more SEs are innovatively and creatively becoming the disruptors through the “growing exponential” technologies which are tipping the scale to a more even playing field.

5.7.2 RQ1: What are the business processes required for SEs to digitally transform their business?

5.7.2.1 RSQ 1.1: What are the benefits and characteristics of DT?

Digital technologies are seen as the lifeblood of DT to assist in transforming business models. There is, however, the need for these digital technologies to be simple and easy to integrate and use within the enterprise. As mentioned above exponential digital technologies are used to drive value, and can disrupt markets. Digital technologies such as machine learning, artificial intelligence, robotics, automation, IoT and augmentation have over the last couple of years hit the business market like a storm. According to Saldanha (2019:36), these digital technologies can allow SEs to either be “doing digital” or “becoming digital” where “doing digital” is a once-off transformation and “becoming digital” is a continuous transformation.

i) People

People are seen as the key driver behind the implementation of new technology and their behaviour and attitude towards either accepting or rejecting technology depends on the level of difficulty of the new technology (Oswald & Kleinemeier, 2017). It is important for SEs to develop the correct culture and talent for the acceptance of new technology and if need be hire employees with the correct skills and abilities in areas such as “agility development” and “analytics” to drive the organisation forward (Wajeetongratana, 2020:123). Diener and Špaček (2021) state that the involvement of employees creates better acceptance of technology especially since employees will feel part of the change and will apply themselves better to the new technology. Skog (2019) argues that the adoption of new technology is also influenced by the consumer’s behaviour and preference and how they wish to interact, acquire services and purchase products from the organisation.

ii) Technology

New technologies are entering the market more rapidly and cost-effectively which means that organisations have to act swiftly if they want to introduce any “new digital product or service” or even digitise their “internal processes” (Wajeetongratana, 2020:122). Emerging technologies such as blockchain, artificial intelligence, cloud computing, IoT and augmented reality are becoming popular adoption technologies organisations implement into their business model (Van Veldhoven & Vanthienen, 2021; Mubako & Ray, 2020). Chen et al. (2021:1035) believe that the adoption of technology can provide various benefits, such as: “i) improved efficiency and reduced costs, ii) increased revenue, iii) more effective knowledge collection, iv) faster and more successful innovation, v) enhanced customer engagement and customer service, sharing and use, and vi) the ability to survive the digital disruption of the industry”

iii) Processes

Technology is seen as an important tool to improve and transform processes of organisations which ultimately leads to the development of new business models (Mallidi et al., 2021). Morandini et al. (2020:2) state that technologies such as “computers, the Internet, digital platforms, robots, machine learning and other forms of artificial intelligence, and Big Data” are some of the technologies used by the organisation to develop new or re-engineer existing processes. This allows organisations to streamline their processes through technology which provides them with benefits such as cost-effectiveness, time efficiency and increased productivity (Pontrelli, 2021).

The findings in this study reveal that the flexible, agile and responsive nature of SEs is followed through when it comes to new technology trends. Findings also reveal that the adoption of new digital technologies does not always meet customer needs, which creates a need for simplified technologies that both customers and employees can adapt to easily. SEs indicated that digital technologies have been integrated in their enterprise. cloud computing, SAAS Software as a service—Dropbox, Google Drive, OneDrive, WordPress, CRM, virtual assistance, artificial intelligence, virtual reality as well social media platforms are all providing value to current and potential new customers. P3 states that “I run my business on my iPhone and Microsoft Surface Pro creating and scheduling content, hosting virtual meetings and live broadcasts for my customers” (Appendix C3).

In summary, digital technologies can improve business models and give SEs the advance to disrupt markets through innovative and creative ways. Seen as the enablers of DT, the success of digital technology in an enterprise is determined by how well the other two characteristics of DT people and process react to it.

5.7.2.2 RSQ 1.2: What are the business challenges for SEs to digitally transform?

Digital technologies do not come without their challenges and failures. The rapid speed at which digital technologies are developed means that many SEs who are planning to undergo a DT do not have sufficient IT skills to run and implement these new digital technologies into their enterprises (Vogelsang et al., 2021; Borštnar & Pucihar, 2021; Zimmermann, 2018; Veith, 2018). The variety of digital technologies on the market, make deciding which digital technology to use for DT difficult and can lead to poor digital technology decision and the digital technology could end up not serving the needs of the enterprise. The technology selected for the DT could also not improve the business process or the business, as the IT infrastructure cannot support the new digital technology. The new digital technology could also be too complex for the users (employees and customers) which could lead to the resistance of the new digital technology. SEs failed to perform a digital maturity assessment to check their digital readiness, failed to formulate an IT strategy, business strategy or DT strategy to understand their technology needs before purchasing the new digital technology. According to Kane (2019), it is becoming challenging for SEs and employees to keep up to date with the rapid change over of new digital technologies, but a greater concern is that the rapid change in digital technologies might all be in vain if the user cannot adopt fast to these changes.

Findings indicate that some of the challenges for the SEs include employee and customer resistance to change and adopt the new digital technology. Other challenges are lack of training on new technology, lack of support from industry experts, being technically challenged, and the lack of knowledge. Vial (2019) states that the barriers of DT come from poor communication regarding the new digital technologies that are going to be used and how it is going to be incorporated and used by the people in the SEs. P11 argues that “It's understanding of what's available and then making sense of what's available because there is so much that is available that it's very easy to find yourself in a position where you're quite overwhelmed” (Appendix C11).

In summary, the rapid turnover and introduction of new technologies can pose a challenge to SEs in their DT journey as it can become too complex where there is an IT skills shortage in SEs to adopt and implement the new technologies. Constant changes in new technologies impact the users of these digital technologies as well who will not be able to adopt fast enough to the changes.

5.7.3 RQ2: How can SEs efficiently organise, support and enable a DT strategy?

5.7.3.1 RSQ 2.1: What are the factors influencing the formulation, adoption and implementation of a DT strategy?

All digital technologies have limited capabilities and its one of the reasons for its rapid changes and introduction of new digital technologies into the markets. To govern the ever-changing

digital technologies and to understand the enterprise's current technological capabilities requires a DT strategy. The DT strategy aligns the enterprise IT strategy and business strategy to guide SEs on how to use digital technology to develop a new or improve their current business model. According to Albukhitan (2020), the common mistakes that enterprises make when it comes to technologies, are: i) accepting any new technologies offered to them by their IT employees or accepting new technologies that were approved based on the competitors; and ii) enterprises lack vision and out of desperation start making ecosystem improved without knowing what problem they are solving.

Findings indicate that SEs are confusing the DT strategy with DT. The formal DT strategy is tailored to the SEs business model and the value it intends to create are taken into account as influencing factors. P6 said: "My technology strategy has always been to try and keep the cost as low as possible so we don't have this massive overhead and that pressure. I look a lot at how much can I do with the free version of something of anything" (Appendix C6).

In summary, digital technologies are changing rapidly taking the digital economy by force. This creates a wide selection of new digital technologies for SEs to select from, but poor technology selection or accepting and implementing new digital technologies without understanding the need for it or what problem it's going to solve can be financially costly for SEs. For this reason, it is important to consider a DT strategy framework that can align the IT strategy and business strategy to fully understand how usage of the new digital technologies are creating value through either a newly developed business model or an improved business model.

5.7.3.2 RSQ 2.2: What are the digital opportunities for SEs to adopt and implement a DT strategy?

The ability to visualise and assign new digital technology faster and better than competitors provides SEs with the opportunity to disrupt the market with newly developed products or services. As mentioned above digital technologies are rapidly changing which means for those SEs that keep up with the changes will focus on perpetual short life span digital technology goals instead of long drawn out technology strategies (Aguilar, 2020). Research states that the DT process is more about transformation through the possibilities created by digital technologies than the digital technologies themselves (Westerman, 2018; Kane et al., 2015). Feroz et al. (2021) claim that a DT strategy allows for the current processes and products to be transformed using the new digital technologies incorporated into the enterprise which determines how SEs must operate and create new business opportunities.

Findings indicate that 86% of SEs would find a DT strategy (formal or informal) to be beneficial, whilst 6% feel that a DT strategy cannot improve the current technology situation or better it as it is very affordable and conducive. P4 states that "At this stage, I don't think it would be

much better than what it currently is. We would be open to obviously having an audit done and maybe having a look and seeing where things could be better but I don't think it would be a major thing" (Appendix P4).

In summary, new technologies entering the market rapidly means that SEs can have a futuristic outlook to delivering new products and services to customers before their competitors. A DT strategy also provides SEs with the opportunity to strategically plan their execution using the guidelines of the DT strategy framework to coordinate and govern the process. A DT strategy aligns the IT and Business strategy of the enterprise to provide a holistic plan to successfully implement a DT. This creates an opportunity for SEs to compete in the market or to become a disruptor through innovation and creativity.

5.8 Theme 7: Risk management in DT

5.8.1 Introduction

Organisations are exposed to various types of risks daily which they need to be able to navigate around to avoid potential loss of finance, assets or reputation (Kremljak & Kafol, 2013). According to Van Der Voort et al. (2019:376) managing risk through "self-regulatory policies" and "governance" has an important part of the organisation's daily operations. Anderson (2014) states that risk management should be a proactive process rather than a reactive process. This is something the entrepreneurs need to be cognitive about as they make strategic decisions around their investment in technologies to drive DT in their organisation. Digital technologies are enablers and creators of massive amounts of data .and thus require each employee to take responsibility to play their part in mitigating risk within the organisation (Thuraisingham, 2019). With that said there are various risk types that can be applied to DT to mitigate risk as discussed in the sub-sections to follow.

5.8.2 RQ1: What are the business processes required for SEs to digitally transform their business?

5.8.2.1 RSQ 1.1: What are the benefits and characteristics of DT?

i) People

Whilst people have been identified by some researchers as an important element of DT (Chamorro-Premuzic, 2021; Barać & Trivan, 2021), human error and human negligence are one of the biggest digital security risks to organisations when it comes to cybercrime (Fielding, 2020). According to Carpitella et al. (2018:3), human errors are classified into "errors of commission" and "errors of omission" where commission errors are based on lack of understanding or training and omission errors are based on negligence or oversight. The Covid19 pandemic increased this risk globally as employees shifted from working in an office environment to working remotely from home (Banga & Te Velde, 2020). Richardson (2020)

states that organisations can utilise the following measures to mitigate risk caused by human error i) divide the specific task up between two people to minimize fraud and errors, ii) install firewalls and antivirus software, iii) set up multi-factor authentication and iv) provide regular training to employees to educate them on how to identify possible malicious attacks. Various researchers state phishing attacks and spam remains the highest form of cyber-attacks faced by organisations (Wynn, 2021; Monteith et al., 2021; Malecki, 2020; Rocha et al., 2020; Berry & Berry, 2018; Iovan & Iovan, 2016).

ii) Technology

Sherer et al. (2019) agree that people are the biggest risk to an organisation, but are looking at risk from a reputational viewpoint and how employees can cause damage to the organisation through their interaction and activities on social media technologies. Sherer et al. (2019) further places emphasis on the importance of developing and incorporating policies on the usage of social media technologies for personal and professional purpose as employees should at all times see themselves as a representative of the organisation's brand. Samimi (2020:133) explains that "information technology risk management is completely technology-oriented and deals with software, hardware, information and data". Matt et al. (2020:114) state that risk with technology can be simplified especially through the usage of robotics as it requires no human intervention. Ganguly et al. (2017:1) argue that risk management through the usage of technology can be digitally transformed into a term called "digital risk". Ganguly et al. (2017:2) define digital risk as "a term encompassing all digital enablement that improve risk effectiveness and efficiency—especially process automation, decision automation, and digitised monitoring and early warning". Narasimhan and Youssef (2020) explain that digital risk is not an easy task and will require that the organisation pull together all the resources emphasising that each digital risk journey will differ from company to company.

iii) Processes

Organisations need to streamline their processes to be more efficient which in return reduces operational risk (Upadrista, 2021). Operational risk arises when there are not sufficient measures in place to control the daily operational activities within organisations (Kretzschmar, 2021). Dickinson (2001:362) links this to operational risk factors such as "human error, fraud, systems failure, the disruption of production". Dickstein and Flast (2009) argue that total avoidance of operational risk is a fruitless and expensive goal and suggest that organisations instead have an active operational risk management program to ensure risks are controlled and mitigated. One such risk that is common in operational risk is cybercrime or cyber operational risk and can be divided into four cyber threats, namely: i) "actions of people"; ii) "systems and technology failures"; iii) "failed internal processes"; and iv) "external events" (Kosub, 2015:618). According to Belantová and Peterek (2020) the success or failure of a SE

can be seen in the level of importance placed on their risk management processes developed for the organisation.

5.8.2.2 RSQ 1.2: What are the business challenges for SEs to digitally transform?

Managing risk has always been seen as a challenge for SEs because of their “limited resources, inflexible procedures and a lack of knowledge” on how to manage risk (Crovini et al., 2020:1086). Engemann (2019:30) argue that risk is very difficult to manage because it is very unpredictable as “nature can initiate technological disasters and technology can intensify natural instabilities”.

According to Kaur and Lashkari (2021:284), risk management of technology comes with its issues and challenges and links it to the following:

- a) “Changing technology—correlating and analysing such a huge volume of diverse data are a critical challenge for effective IT risk management.”
- b) “Recruiting the right people with the right talent, good work ethics—finding the right and expertise, IT risk professionals for dealing with IT risks is another issue.”
- c) “Compliance to IT risk standards—complying to the multitude of regulations is a critical security concern for IT professionals, but rapid DTs make it hard to mitigate risks.”
- d) “Correct risk assessment and prioritisation—early and regular risk assessment is the key to evaluate residual and unforeseen IT risks.”
- e) “Involvement of stakeholders—inculcating stakeholder’s requirements facilitates building a risk profile for an IT system which helps in taking the right decisions at the right time.”
- f) “Getting the managers to understand the risk—it is imperative that managers understand the risk because the consequences of a risk are directly related to organisation’s budget to overcome it.”

It is important for organisations to fully understand and assess the risk challenges of their business model to avoid turning a threat into a vulnerable situation that can lead to financial risk implications (Grove et al., 2018). Financial Risk Management is an extremely important focus area for SEs especial because of their limited financial resources (Van Den Boom, 2020). According to Qubtan et al. (2021), financial risk is the biggest concern for most SEs. Ferreira De Araújo Lima et al. (2020:2) state that financial risk can originate as a result of various factors such as “market forces, financial assets or liabilities capital risk, investment risk, interest rate risk, credit risk, currency risk and financial market risk”.

5.8.3 RQ 2: How can SEs efficiently organise, support and enable a DT strategy?

5.8.3.1 RSQ 2.1: What are the factors influencing the formulation, adoption and implementation of a DT strategy?

Before implementing new technologies into the organisation's business model, risk factors such as sustainability and potential decrease in efficiency must be taken into consideration (Shalina et al., 2020). The Committee of Sponsoring Organisations of the Treadway Commission (COSO, 2018:56) defines strategic risk management as “failure to anticipate or adapt policy direction and business model in a rapidly changing environment”. Godfrey et al. (2020:26) define strategic risk management as “a set of principles, processes, teams, and tools that allow firms to manage strategic risks, which are those uncertainties, events, and exposures that create threats to or opportunities to expand their core competitive advantages”. According to Jedynek and Bał (2021) the Covid-19 pandemic persuaded SEs to transform the business model to mitigate strategic risks such as “business continuity risk, reputation risk and investment risk”. It is for this reason that Zimmerman et al. (2021:224) argue against an Enterprise Risk Management framework and recommend that SEs invest in a strategic framework such as: i) “AIDAF—global DT communication (GDTC) model”; ii) “social collaboration model (SCM)”; and iii) “Strategic Risk Mitigation Model (STRMM)” that are more suitable for the agility of a DT. Brătianu et al. (2020) state that risk management is a continuous process that requires the identification of new risk that regularly needs to be introduced to the organisation's strategy.

5.8.3.2 RSQ 2.2: What are the digital opportunities to SEs for adopting and implementing a DT strategy

DT in risk creates value by streamlining the processes, improving time efficiency and assisting in making informed decisions (Ganguly et al., 2017). Bautista and Krutzen (2018: 11) argues that the digitisation of risk management can bring digital opportunities as it can “ increase the value of current risk management practices by integrating and automating risk management in organisations across several dimensions which brings more transparency, better risk decisions, while at the same time, reducing the effort and cost required”. The Muggah and Rohozinski (2021:1) state that by the year 2026 almost 26% of the world's Gross Domestic Product (GDP) could be based on “Internet-based and digitally-connected industries”, but to capitalise on this digital opportunities SEs must have a minimum “understanding of their digital risk”, their “digital exposure” and follow the “key digital risk management principles” as this will be the determining factor between success and failure.

Findings indicate that risk mitigation is a low priority to SEs as only two Ps mentioned the risk mitigation factor that needs to be applied when working with the client's data. There is a need for SEs to fully understand the sensitivity around the data that digital technologies are

collecting, processing and how it is stored and their role as entrepreneurs and custodians of that data. P2 said,

“I was using a hard drive and then my hard drive fell and it broke and then I couldn't access anything. I had to start over again and that's how I learned that using those kind of devices are okay for temporary stuff but not for stuff that you would actually need to store long-term. I found that the cloud was way better for that” (Appendix C2).

P3 stated, “You need to always be ready to address your core problems without distracting yourself by playing catch-up or taking big, poorly planned risks” (Appendix C3).

In summary, while new technologies are rapidly entering the market and SEs trying to incorporate them into their enterprises to create value for their clients, the risk behind incorporating the next technologies into consideration as malicious hackers are becoming more innovative and creative in their ways of attacking enterprises.

5.9 Summary

The identified themes have been discussed based on the RQs and RSQs, relating them to the literature and the Ps' interview responses. The seven themes were discussed in light of the literature, previous research findings and recommendations. The first question, RSQ 1.1 aimed to reveal the characteristics and benefits are of DT. The answers to this question identified the characteristics and benefits of a DT. SEs have a fair level of understanding of what the characteristics and benefits of DT are. The respondents' answers were linked back to the characteristics of DT in the literature being technology, people and processes. The benefits of DT for SE are dependent and mostly related to each SEs' individual purpose for the DT. The findings are in agreement with previous research studies. In terms of RSQ 1.2 which sought to understand challenges of DT, the challenges identified are: i) lack of knowledge on DT; ii) understanding what digital technologies are available for SEs; iii) financial resources; iv) adequate support from government and financial institutions; v) qualified skills and expertise; vi) communication between employee and employer; and vii) understanding the. The findings also revealed a need for SEs to better understand DT as there is the perception that the usage of digital technologies means DT.

In RSQ 2.1, the researcher sought to understand the factors influencing the formulation, adoption and implementation of a DT strategy by SEs. The findings revealed that the majority of the SEs lack knowledge about what a DT strategy is; only two SEs had a basic understanding a DT strategy. SEs confused a DT strategy with a digital strategy and displayed a lack of clear understanding. The decision to adopt a DT strategy is based on influencing factors such as: i) improved time efficiency; iii) increase in productivity; iv) clearly defined benefits; v) value creation for customers; and vi) simplified DT strategy process. The results

further indicate that the concept of a DT strategy and how to formulate, adopt and implement it is still in its premature stage for SEs, which is in agreement with previous research studies.

RSQ 2.2 sought to understand what the digital opportunities are for formulating, adopting and implementing a DT strategy in SEs. Findings show that the SEs' level of understanding of the digital opportunities presented by a DT strategy is fair. SEs identified opportunities such as: i) time efficiency; ii) streamlined work processes; iii) increase productivity; and iv) simplified processes. The natural ability of SEs to be flexible and agile could be favourable for some digital opportunities such BPA, clouding computing, usage of mobile social media applications and omni-channel platforms to create and deliver value to customers. The majority of SEs, after hearing what a DT strategy (formal and informal) entails, believed that it could be beneficial to their enterprise. There is a need though for SEs to become aware and fully understand the concept of a DT strategy and its benefits to move away from the financial cost fear and also to fully understand the digital opportunities presented by formulating, adopting and implementing a DT strategy.

The next and final chapter is dedicated to the recommendations and conclusions drawn from the results of this study.

CHAPTER 6: CONCLUSION AND RECOMMENDATIONS

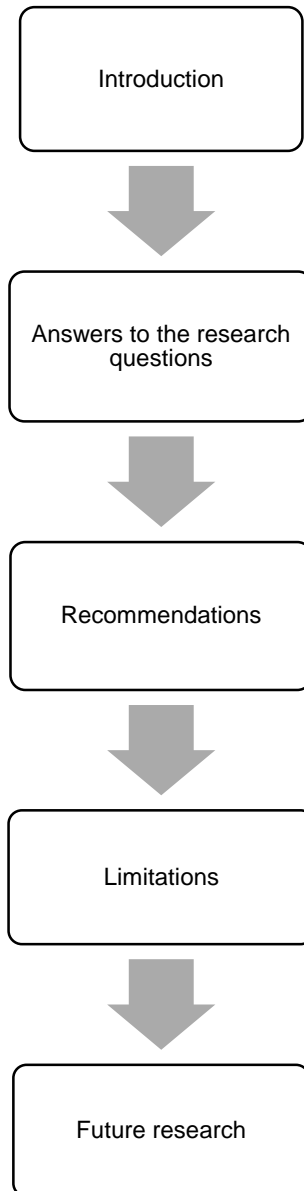


Figure 6.1: Layout of Chapter 6

6.1 Introduction

Chapter 6 presents the conclusion, recommendations and answers to the research questions that were posed (Tables 1.1 & 1.2). The discussion in this chapter is directly linked to the aim and objectives of the study, which formed the backbone of the research. Recommendations of the study are provided, and future research is proposed.

Research over the years has been on DT and DT strategies, both in academia and in industry (Korachi & Bounabat, 2019a). These studies sought to understand the DT and DT strategies concept and how it could be explored and exploited to overcome the technological barriers faced by enterprises (Niehage, 2020; Seet, 2019; Chanas et al., 2019; Chanas, 2017). Although significant progress has been made on DT characteristics, benefits and challenges at large, there is still a gap in the literature on how SEs should formulate, adopt and implement a DT strategy to successfully transform digitally (Mitroulis & Kitsios, 2019b). The African Union (2020) recognises the urgency to start accelerating DT in Africa and adopted a 10-year DT strategy for Africa.

The decision to explore new digital technologies is in most cases a re-active decision by SEs to respond to a threat in the market or to remain relevant to their competitors. There is a lack of strategy in SEs; the majority of the participants said they have no business or technology strategy in place and are running their business informally. The challenge is that SEs cannot be proactive in their approach to DT.

The study aimed to explore factors that affect the adoption of DT strategies by SEs. With this in mind, the objectives of the study were to:

- a) Determine the reasons why SEs adopt or do not adopt DT
- b) Determine the challenges SEs face to digitally transform
- c) Determine the factors of a DT strategy that may assist SEs with implementing DT in the organisation

6.2 Conclusion

The research results reveal that SEs have a fair understanding of the characteristics, benefits and challenges of DT, but very little to no understanding of what it entails to formulate, adopt and implement a DT strategy. SEs do not fully understand the benefits of a DT strategy and confuse it with the actual DT benefits offered by new technologies. SEs agree that a DT strategy can assist with the successful implementation of a DT, but lack the knowledge of the elements of a DT strategy and what it entails to formulate, adopt and implement a DT strategy. SEs focus more on the implementation of new technologies to make incremental changes to their enterprise, but they have not adopted a holistic transformation.

SEs thrive to be as cost-effective as possible and this is reflected in what they value as important factors for formulating, adopting and implementing a DT strategy. The benefits and challenges identified by the SEs are in line with previous research studies and the fact that their knowledge around DT strategy is limited low is also in line with previous research studies. SEs need to explore and exploit a DT strategy based on the elements of transforming

leadership decision making, financial aspects, technology, organisational culture, employee skills and customer adoption. Knowing what a DT strategy entails can enable SEs to formulate, adopt and implement a DT strategy in their enterprise to successfully transform digitally.

6.3 Answers to the research questions and aim of the research

6.3.1 RQ1: What are the business processes required for SEs to digitally transform their business?

6.3.1.1 RSQ 1.1: What are the benefits and characteristics of DT?

The characteristics, benefits and challenges to successfully implement DT include understanding: i) the role of BPM in formulating and implementing DT strategies; ii) the role of leadership decision making in the formulation, adoption and implementation of DT strategies, the implementation of DT, and the role of leadership decision making in the formulation and adoption of DT strategies; iii) the concept of Business Process Automation (BPA) in support of DT; iv) the factors that influence the financial aspects of DT.

i) The characteristics of a successful implementation of DT by SEs:

- a) SEs awareness and understanding of people as the users of technology, their ability and skills to operate the new digital technology
- b) SEs have either knowingly or unknowingly already applied informal BPM elements in their enterprise. The focus for SEs was just more on digital technology tools such as mobile computing, analytic tools, social media and Web-based applications, which are better known by many enterprises than the holistic view of DT itself
- c) Digitisation of paper-based processes to digital processes
- d) Ability to follow new technology trends and use these technologies to create a competitive advantage
- e) Using new technologies to improve current business processes
- f) Elimination of human intervention through automation of business processes
- g) Migration from brick and mortar to digital online platforms that support online trading
- h) The transition from traditional business to online business using e-commerce
- i) The utilisation of data tools for data analytics that support better decision
- j) The ability to integrate new technologies with existing technologies to remain competitive in the market
- k) SEs indicated that the benefit of DT for them is better return on investment and an increase in revenue

ii) Benefits of DT to SEs

- a) DT allows SEs to operate through various omni-channels
- b) DT increases the revenue
- c) Creates the opportunity to compete in the market

- d) Improved access for SEs to customers and customers to SEs
- e) DT can be cost-effective
- f) Reduction in the overall operational costs
- g) Improved return on investment
- h) DT, through process automation, allows for better communication to clients
- i) DT creates an online presence that allows the customer to verify the legitimacy of the enterprise and build on the brand name
- j) DT allows for the incorporation of data tools that assist with better decision making
- k) DT frees up SEs from mundane tasks and allows them to focus on more important tasks such as increasing the client base, sales and revenue
- l) DT allows SEs to be more time efficient
- m) DT makes the daily operations of SEs easier
- n) DT, through DM, assists SEs to compete with larger enterprises
- o) DT, through DM, reduces the costs of online marketing in comparison to that of traditional marketing
- p) DT, through the usage of geographical location technology, allows SEs to better serve the needs of current and potential customers
- q) DT gives SEs access to markets and business opportunities that did not exist before
- r) DT encourages innovation and creative thinking on how to take full advantage of technology
- s) Drives data based insights
- t) Encourages collaborations across an organisation's departments
- u) Increases agility and innovation
- v) Updates skill sets and knowledge of employees
- w) Allows organisations to foster a digital culture
- x) Assists with the consolidation of processes and operations within an organisation

6.3.1.2 RSQ 1.2: What are the business challenges for SEs to digitally transform?

Research question 1.2 sought to understand the challenges for SEs when undergoing a DT:

- a) SEs perceive the lack of knowledge about DT as a barrier
- b) The lack of finance and financial support from investors, government and financial institutions
- c) SEs do not find any support from industry experts that will guide them to transform their business model
- d) The regulatory and compliance of SEs are not understood in terms of collecting, storing, processing and protecting the data collected from clients
- e) The inability of the entrepreneur to lead a DT; the leader cannot visualise what the future goals are and cannot articulate the goals to stakeholders and subordinates

- f) SEs see organisational culture as well as employee and customer resistance to adopting new digital technology as a challenge
- g) Lack of adequate training on the new digital technology to employees
- h) Lack of fully understanding DT and its benefits and how to exploit it
- i) Insufficient time to learn new technologies
- j) Employee and customer resistance to change caused by fear of job losses
- k) Lack of strategy and unable to lead a DT

6.3.2 RQ 2: How can SEs efficiently organise, support and enable a DT strategy?

6.3.2.1 RSQ 2.1: What are the factors influencing the formulation, adoption and implementation of a DT strategy?

The factors are as follows:

- a) SEs consider time efficiency improvement, value creation and increase in productivity as factors influencing their decision to formulate, adopt and implement a DT strategy
- b) A DT strategy must have clear benefits and it must be easy for SEs to consider it
- c) A DT strategy must be able to support data analytics for SEs to analyse the data and make informed decisions
- d) It depends on what value the entrepreneur places on a DT strategy
- e) A DT strategy must be able to increase the revenue
- f) The DT strategy must enhance the overall customer experience
- g) A DT strategy should not be costly to formulate if it is to be outsourced

The results further revealed that SEs will adopt DT for the following reasons:

- a) To digitise paper-based processes to digital, automate mundane processes that are labour intensive
- b) More online visibility for e-commerce purposes and to grow their client base
- c) SEs acknowledge that DT is important to remain competitive and relevant in the market
- d) To increase innovation and creativity and to be more agile and flexible in the fast-changing digital economy
- e) Time efficiency and better flow of work
- f) Digital technology evens the playing field for SEs to compete in the market with larger enterprises

6.3.2.2 RSQ 2.2: What are the digital opportunities for SEs when adopting and implementing a DT strategy?

- a) Better insights into the enterprise's current and future technology to proactively prepare for market changes in order to still create value for customers

- b) A DT strategy allows SEs the digital opportunity to become more customer data-driven, which can assist with predicting and experimenting with customer needs better based on the customer's behaviour
- c) SEs have identified process automation of manual tasks, networking through social media platforms, plug-ins as extension programs, cloud computing for storage and agility, robotic processing automation for chatbots, and Google Analytics for decision making as opportunities for DT
- d) To be at the forefront of technological change, become a disruptor in the market, become an innovator; this gives SEs the chance to sustain their business, especially during the Covid-19 pandemic
- e) There are SEs that would consider a formal DT strategy and there are SEs that do not think a DT strategy can improve the current situation in terms of the technologies available

6.4 Addressing the aim and objectives of the study

The aim of this study was to explore the factors that influence the decision of SEs to formulate, adopt and implement a DT strategy. The results of the study have addressed the aim and objectives as set out at the beginning of the study. The objectives of the research were to:

- a) Determine the reasons why SEs adopt or not adopt DT
- b) Determine the challenges SEs face to digitally transform
- c) Determine the factors of a DT strategy that may assist SEs with implementing DT in the organisation

The research results reveal that SEs have a fair understanding of the characteristics, benefits and challenges of DT, but very little to no understanding on what it entails to formulate, adopt and implement a DT strategy. SEs do not fully understand the benefits of a DT strategy and confuse it with the actual DT benefits that the new technologies provide. SEs agree that a DT strategy can assist with the successful implementation of a DT, but they lack the knowledge of the elements of a DT strategy and what it entails to formulate, adopt and implement a DT strategy. SEs focus more on the implementation of new technologies to make incremental changes to their enterprise, but they have not adopted a holistic transformation.

The decision to explore new digital technologies is in most cases a reactive decision by SEs to respond to a threat in the market or to remain relevant to their competitors. There is a lack of strategy within SEs; the majority does not have a business or technology strategy in place and run their business informally. The challenge is that SEs cannot be proactive in their approach to DT. SEs identified some of the challenges that hinder them to successfully transform digitally:

- a) Lack of fully understanding DT and its benefits
- b) Unrealistic expectations
- c) Lack of financial resources
- d) Lack of support from experts
- e) Time to learn new technologies
- f) Employee and customer resistance
- g) Lack of strategy
- h) Inability to lead

The challenges faced by SEs can become very overwhelming when embarking on a DT journey, which is one of the reasons why SEs resort to the implementation of new technologies and incremental changes as a response mechanism to threats entering the market. By exploring the factors of DT strategy, SEs consider the following:

- a) Increase the SE's online presence
- b) Increase the productivity
- c) Allow SEs to remain relevant in the market
- d) Assist with growing the business
- e) Digitalisation of processes
- f) Automation of processes
- g) Reduction in costs
- h) Increase in revenue
- i) Simplified processes

SEs strive to be as cost-effective as possible and this is reflected in what they value as important factors to formulate, adopt and implement a DT strategy. The benefits and challenges identified by the SEs are in line with previous research studies and the fact that their knowledge of DT strategies is limited is also in line with previous research studies. SEs need to explore and exploit a DT strategy based on the elements of transforming leadership decision making, financial aspects, technology, organisational culture, employee skills and customer adoption. Knowing what a DT strategy entails can enable SEs to formulate, adopt and implement a DT strategy in their enterprise to successfully transform digitally.

6.5 Recommendations

Taking into consideration the findings and themes of the study, several recommendations can be made in terms of the characteristics, benefits and challenges of DT and the formulation, adoption and implementation of a DT strategy. These are as follows:

- a) SEs need to enhance their knowledge of DT from a holistic viewpoint by understanding its influence on people as users of technology, the business model processes and technology
- b) SEs need to partner with DT experts where needed to assist with the implementation of DT
- c) Adopt a formal organisational strategy to drive a digital culture, upskill current employees and attract skilled employees that will assist with embarking on a DT journey
- d) SEs need to perform a digital maturity assessment to determine their ability to digitally transform based on their in-house skills and IT infrastructure
- e) Adopt a for DT strategy as a road map to support the DT journey
- f) SEs need to partner with industry experts where needed on how to formulate, adopt and implement a DT strategy
- g) Because of limited financial resources, SEs need to ensure that there is an allocated budget available for DT

6.6 Limitations

The research was conducted with born-digital SEs in Cape Town. If the study is extended to a larger population as well as traditional SEs, the results may be more generalisable and lead to a different conclusion.

The respondents who partook in this research mainly held management positions with some technical background, which may make the results biased and one-sided as it may not present the full perspective of characteristics, benefits and challenges of DT as well as the formulation, adoption and implementation of a DT strategy.

6.7 The Covid-19 pandemic

The Covid-19 pandemic took everyone by surprise and we all had to quickly adjust our lives to the 'new normal'. While many large enterprises had reserved financial resources that they could access to survive the pandemic, many of the SEs were not so fortunate. This made researching SEs extremely difficult as the majority of them were fighting to not only keep their doors open, but also fighting for their employees and others who depend on their salaries to feed their families. This meant participating in research was at the lowest their priority for SEs and getting them to accept my invitation to participate during the pandemic was like trying to thread a camel through the eye of a needle. Those SEs that agreed to participate in the study were all born-digital enterprises whose digital maturity levels were slightly higher than traditional SEs; this made navigation online for the born-digital SEs a more natural process during the pandemic.

6.8 Future research

- a) More in-depth research is needed on how to formulate, adopt and implement a formal DT strategy in both traditional and born-digital SEs
- b) More in-depth research is needed to understand the factors influencing SEs' decision to formulate, adopt and implement a DT strategy
- c) More research is needed to develop a framework for SEs that will assist them with how to transform their enterprise, since the focus is more on the digital part of DT and very little on the transformation part

6.9 Reflection—my Masters Degree journey

Being brand new to academic research, I thought to myself surely this cannot be that difficult. I have been doing assignments for the past five years, so I can do this. Little did I know I was in for a rude awakening, because what I was taught during my National Diploma and Degree years did not even scratch the surface of what it entails to complete a full research qualification. I had to unlearn everything I thought I knew about research, and not completing research methodology as a module meant starting from scratch. This made the research a little more challenging and when the Covid-19 pandemic started taking over everything, things just became a little more complicated. Whilst I enjoy face-to-face interaction, I quickly had to become familiar with virtual meetings.

The research journey was therefore a humbling experience and it took me out of my comfort zone. I went from being clueless on how to find a research topic, to working with the supervisor on how to find research topics from the “golden nuggets” in the literature, as Dr Andre De La Harpe calls them. Academic research surely takes one on an emotional roller coaster ride that is full of peaks and valleys. I remember getting excited for finally settling on a topic for my research proposal and feeling confident to take on my proposal, only to be caught off guard by philosophy terminologies. The words *ontology*, *epistemology*, *metaphysics*, *research methodology*, *research design* and *research method* left my head spinning and was “Greek” to me. Whilst the supervisor tried his best to explain it to me, I just could not fully grasp and get my head around these terminologies to be comfortable with it. I knew I needed to put in more effort from my side to understand these philosophy terminologies better, and Google and YouTube videos became my source for more viewpoints and explanations. This became my strategy throughout my research journey and it is a decision I am glad I made. My strategy reminded me of the quote from the Chinese philosopher Lao Tzu, “*Give a man a fish and you feed him for a day. Teach him how to fish and you feed him for a lifetime*”. After my proposal was approved, the excitement was high again until reality kicked in and I needed to start with my actual research. This is where I was really challenged and pulled out of my comfort zone. I needed to source 15 small enterprises to participate in my research study and every time I

picked up the phone, I could feel my heart beating in my chest. The fear was not speaking to people; the fear was more rejection, which there was quite a few, but it became better after a few calls. I would jump with excitement every time a business owner would agree to participate in my study, which long outlived the feeling of rejection.

Fifteen interviews later, fifteen interviews were transcribed, coded and analysed and I was finally ready to start tackling these six chapters of my thesis. The momentum started great, but it was during this phase of the research study that the pressure was paramount. I quickly realise how important it is to have a good support structure behind you in your supervisor, family, friends and work colleagues. Whilst they cannot physically help you with your thesis, the psychology support is important, the motivation and the random check-ins is what kept me going during the long days and late nights.

Left with just my thoughts, many nights I would randomly have epiphany moments that simply 'popped up' in my head. The one that particularly did not go well for me was during Chapter 5. I came to the conclusion that I suffer from perfection paralysis. I never gave much attention to it until I saw a video of a thesis coach who spoke about perfection paralysis and I could relate to the signs mentioned. Perfection paralysis is where you want things to be perfect and you are so focused on perfection that you get stuck and find yourself unable to get started. This was me on most days and nights where I find myself, busy with my thesis for hours but still being so unproductive. Yes, I had my light bulb moments where for days' things did not make sense and then all of a sudden it was as clear, but it honestly took me days which I could have been utilised better. This delayed my thesis and took me so much longer than originally planned,

What I have learned from my realisation is that there is no such thing as a perfect thesis. Even if I write the perfect thesis, my supervisor will critique my thesis and I will attend to the recommendations. There is always room for improvement, there will always be a chapter or section I could have written better, and there will always be a student who can do a better research study than me. Does it mean the research study will not be good? I believe not. What it means is I should just be the best research student I can be under the current circumstances and give my best attempt during my research study, even if it's not 100% perfect.

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APPENDIX A1: ETHICS DOCUMENT



P.O. Box 1906 • Bellville 7535 South Africa • Tel: +27 21 4603291 • Email: fbmsethics@cput.ac.za
Symphony Road Bellville 7535

Office of the Chairperson Research Ethics Committee	FACULTY: BUSINESS AND MANAGEMENT SCIENCES
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The Faculty's Research Ethics Committee (FREC) on 25 August 2020, ethics Approval was granted to Mark Du Plessis (203057791) for a research activity for Master of Business and Information Administration at Cape Peninsula University of Technology.

Title of dissertation/thesis/project:	The adoption of digital transformation strategies by small enterprises in Cape Town, South Africa Lead Supervisor (s): Dr A de la Harpe
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Comments:

Decision: APPROVED

 Signed: Chairperson: Research Ethics Committee	8 September 2020 Date
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APPENDIX A2: INVITATION LETTER TO PARTICIPATE IN THE RESEARCH



Postgraduate studies and research
Graduate Centre for Management
Business & Management Sciences Faculty
District Six Campus, Hanover and Tennant Street
Zonnebloem | 8000 | Cape Town

To whom it may concern

Re: Introductory letter for the collection of research data

Mark du Plessis is registered for the *Master of Business and Information Administration* degree at CPUT with student number *203057791*. The thesis is titled "*Digital Transformation process: The digitalization processes within Small Medium and Micro Enterprises in Cape Town South Africa*", and aims to explore the readiness of SMMEs in Cape Town to implement a digital transformation strategy. The principal supervisor is *Dr Andre de la Harpe*.

In order to meet the requirements of the University's Higher Degrees Committee (HDC) the student must get consent to collect data from organizations which they have identified as potential sources of data. In this case the student will issue a questionnaire to gather relevant data.

If you agree to this, you are requested to complete the attached form (an electronic version will be made available to you if you so desire) and print it on your organisation's letterhead.

For further clarification on this matter please contact either the supervisor(s) identified above, or the Departmental Research Committee Secretary at 021 460 3833.

Regards

A handwritten signature in black ink, appearing to read 'S. Hosking'.

Prof Stephen Hosking
Head of Department
Graduate Centre for Management
Faculty of Business and Management Sciences

Date: 10 June 2020

APPENDIX A3: LETTER OF INFORMED RESEARCH CONSENT

Please allow me to introduce myself again. My name is Mark Du Plessis and I am currently a Master's Degree student (Student number 203057791) at Cape Peninsula University of Technology, District Six Campus. The reason for my email to you is to seek permission from your company to conduct research that will assist me towards obtaining my Master's Degree.

The topic of my research is digital transformation Strategic Processes within Small and Medium Enterprises in Cape Town South Africa. The purpose of my study is to understand the business processes in implementing a digital transformation strategy within SMEs. My research method for collecting data will be a qualitative research method, through interviews with the participants. I am also looking at the data from objectivist viewpoint and therefore I am more interested in your journey, the journey of your company and how you follow up or adopt new technology to remain competitive in the market. The interview will last no longer than 45 minutes.

I would like to highlight the point that nothing will be done without the permission of your company and that ethically every step of my research will be conducted with your company's and the University's best interest at heart. No information about your company will also be published in my thesis without your permission including your name if you wish to stay anonymous. A draft of the transcribed interview will be emailed to the interviewee for validation to ensure that the information is correct and that nothing is missed or misinterpreted.

I would highly appreciate it if you can get back to me to advise what day you will be available to do the interview with you.

Attached are the following documents:

- 1) Letter from the University confirming my study. (Note: that the letter is dated 10 June 2020, because I am in my 2nd year and mid-way through my research)
- 2) Consent letter template that you need to complete and return to me on your company letterhead giving me permission to conduct the academic research with your company
- 3) List of interview questions to assist you in preparing for the interview

Should you require more information I can call you to best answer any questions or concerns.

Looking forward to your response.

Kind Regards

Mark Du Plessis

APPENDIX B: INTERVIEW GUIDE QUESTIONS

A. General Information

- a. Name of the organisation
- b. Size of the organisation
 - 1-5 employees
 - 5-10 employees
 - 10-20 employees
 - 20-50 employees
 - 50-100 employees
 - More than 100 employees
- c. What is the nature of the business of your enterprise?
- d. What industry are you in?
- e. What function/position do you hold in the organisation?
- f. Geographical location of your organisation

B. Interview Questions

RQ1: What are the business processes required for SEs to digitally transform their business?
RSQ 1.1: What are the benefits and characteristics of DT?
<i>IQ 1.1.1: What does digital transformation mean to you?</i> <u>Comment:</u>
<i>IQ 1.1.2: Do you believe digital transformation is important to SEs? If yes, why? If no, why not?</i> <u>Comment:</u>
<i>IQ 1.1.3: What opportunities have your business pursued in DT?</i> <u>Comment:</u>

IQ 1.1.4: What are the benefits of undergoing a DT?

Comment:

IQ 1.1.5: How does the company use the following digital technologies?

- a. Mobile computing (e.g. mobile apps, tablets, smartphones)
- b. (Big) Data/Analytics (e.g. analysing/leveraging data, digitalisation of physical assets)
- c. Social media/social networks (e.g. for marketing, contact with customers)
- d. Internet/networks (e.g. website, e-commerce, cloud computing)

Comment:

IQ 1.1.6: When did you start using this technology?

Comment:

IQ 1.1.7: What was it like before this technology was implemented?

Comment:

IQ 1.1.8: Why do your company use this technology? (Do your company take advantage of digital technology e.g. increase customer satisfaction, reduce costs)?

Comment:

RSQ 1.2: What are the business challenges for SEs to digitally transform?

IQ 1.2.1: What historic/current challenges exist when undergoing a DT?

Comment:

IQ 1.2.2: Which organisational strategies are used to overcome challenges and to create value with DT?

Comment:

IQ 1.2.3: What are the major consideration factors in your organisation that influence the choice of new technology adoption for the business? (e.g. cost, resistance from employees/ customers/

suppliers etc.)

Comment:

IQ 1.2.4: How agile and flexible is your company to follow up on new technology trends?

Comment:

IQ 1.2.5: How do you consider digital transformation to be a source of value creation, in terms of both customers and your company itself?

Comment:

IQ 1.2.6: How does digital transformation impact organisational performance?

Comment:

IQ 1.2.7: How does digital transformation impact the following: Please discuss each of these.

- a. Leadership decision making
- b. Financial costs
- c. Organisational culture
- d. Employees (Skills and adoption)
- e. Customer (Adoption)

Comment:

RQ2: How can SEs efficiently organise, support and enable a digital transformation strategy?

RSQ 2.1: What are the factors influencing the formulation, adoption and implementation of a digital transformation strategy?

IQ 2.1.1: What is your understanding of digital transformation strategy?

Comment:

IQ 2.1.2: In your opinion would you say that a digital transformation can assist the company to be proactive to new disrupters entering the market? How and why?

Comment:

IQ 2.1.3: Is there a clear technology strategy in your organisation? If yes, how is it in line with your business strategy?

Comment:

*IQ 2.1.4: Have your company used a digital transformation strategy before?
If yes, was it a formal or informal strategy? If no, why not?*

Comment:

IQ 2.1.5: If digital transformation strategy is not being used in your organisation, is there any consideration of adopting it in the future?

If yes, why? If no, why not?

Comment:

IQ 2.1.6: Should your company decide on using a formal digital transformation strategy how would you go about the formulation, adopting and implementing it in your organisation?

Comment:

IQ 2.1.7: In your opinion is there any belief that a formal digital transformation strategy can assist SEs to successful digitally transform?

If yes, why? If no, why not?

Comment:

IQ 2.1.8: What are the major factors in your organisation that influence the choice of adopting and implementing a digital transformation strategy for the business?

Comment:

RSQ 2.2: What are the digital opportunities to SEs for adopting and implementing a digital transformation strategy?

IQ 2.2.1: How adoptive and responsive is your company to new technology?

Comment:

IQ 2.2.2: How beneficial will adopting a digital transformation strategy be to your company?

Comment:

*IQ 2.2.3: Was there ever a time that technology you could not meet a customer's need?
If yes, why? If no, why not?*

Comment:

*IQ 2.2.4: What are the most important lessons learned regarding these changes that you have made?
Please indicate any specific success or failures with regards to digital tech. implementation?*

Comment:

IQ 2.2.5: In your opinion, where is your company now in terms of your organisational strategy?

Comment:

IQ 2.2.6: Where do you want your organisation to be in terms of digital transformation the future?

Comment:

IQ 2.2.7: How will you get to where you want the company to be in the future?

Comment:

IQ 2.2.8: What were the most influential trends of digital transformation within your industry and what are the expected future trends?

Comment:

APPENDIX C1: INTERVIEW TRANSCRIPT OF I1

Please allow me to introduce myself again. My name is Mark Du Plessis and I am currently a Master's Degree student (Student number 203057791) at Cape Peninsula University of Technology, District Six Campus. The reason for my email to you is to seek permission from your company to conduct research that will assist me towards obtaining my Master's Degree.

The topic of my research is digital transformation Strategic Processes within Small and Medium Enterprises in Cape Town South Africa. The purpose of my study is to understand the business processes in implementing a digital transformation strategy within SMEs. My research method for collecting data will be a qualitative research method, through interviews with the participants. I am also looking at the data from objectivist viewpoint and therefore I am more interested in your journey, the journey of your company and how you follow up or adopt new technology to remain competitive in the market. The interview will last no longer than 45 minutes.

I would like to highlight the point that nothing will be done without the permission of your company and that ethically every step of my research will be conducted with your company's and the University's best interest at heart. No information about your company will also be published in my thesis without your permission including your name if you wish to stay anonymous. A draft of the transcribed interview will be emailed to the interviewee for validation to ensure that the information is correct and that nothing is missed or misinterpreted

Thank you again for joining me to do the interview today. I'm going to go straight into the research questions as there is quite a lot of questions that we need to go through.

A. General Information

Question 1: What is the name of your enterprise?

- P1.

Question 2: What is the size of your organisation in terms of employees?

- Well a few months ago it was like five people. Right now it's only two and it's gonna be only one soon.

Question 3: *What is the nature of the business of your enterprise?*

- DM Agency.

Question 4: What industry are you in?

- DM.

Question 5: What is the function or the position that you hold within the organisation?

- I am the owner and executive manager.

Question 6: Geographical location of your organisation

- Claremont in Cape Town.

B. Interview Questions

RQ1: What are the business processes required for SEs to digitally transform their business?

RSQ 1.1: What are the benefits and characteristics of DT?

IQ 1.1.1: What does DT mean to you?

It's creating it's moving your paper-based business to a computer-based business you move your meetings to online or your communication how can I say, you start keeping your documents online, you start to use the cloud for sharing your documents. You do your marketing online that's I think what DT means.

IQ 1.1.2: Do you believe DT is important to SEs? If yes, why? If no, why not?

I do yes nowadays you need a digital online presence on the Internet for your business. Because that's how people check if you're legit or not. if you what if you're doing what you're doing.

IQ 1.1.3: What opportunities have your business pursued in DT?

There is a few so I can give you one. There was one restaurant that started this online business where they started to deliver food online like fruit foods because of that they tripled their income. So having an online presence helped them.

IQ 1.1.4: What are the benefits of undergoing a DT?

When more people heard about their business they increased their income.

IQ 1.1.5: How does the company use the following digital technologies? A) Mobile computing (e.g. mobile apps, tablets, smartphones) B) (Big) Data/Analytics (e.g. analysing/leveraging data, digitalisation of physical assets) C) Social media/social networks (e.g. for marketing, contact with customers) D) Internet/networks (e.g. website, e-commerce, cloud computing)

We use all of them. Social media networks marketing cloud computing. All of them.

IQ 1.1.6: When did you start using this technology?

Well some of them after the first months. Some start from the beginning like analytics stuff we started using it after one month for SEO engineering.

IQ 1.1.7: What was it like before this technology was implemented?

We didn't have analytics it was the beginning of the business so what we did was just go to meet people and talk to them and create analytics from that. Like, ask them what they need what and how they do their business and how do they how they do their marketing and if they need any help and we try to solve their problems that's how we did our analytics.

IQ 1.1.8: Why do your company use this technology? (Do your company take advantage of digital technology e.g. increase customer satisfaction, reduce costs)?

Time efficiency. It's so much easier to figure out if it is needed through Google Analytics if no people search about it there's no point.

IQ 1.2.1: What historic/current challenges exist when undergoing a DT?

Companies don't understand the benefits of DT most companies expect a sudden benefit from DT but it is a long-term it mostly long-term benefits more than a sudden benefit that's why it's hard to pursue other companies to help to make them go through this transformation.

I think it's the cost especially the current like these days is the what they look for the cost they don't want to spend anything extra.

IQ 1.2.2: Which organisational strategies are used to overcome challenges and to create value with DT?

It depends on the budget honestly as DT is expensive because you can't just create someone's website or like some other stuff and leave it there. You need like marketing you are going to do pay-per-click marketing. If they want to do that in long term it is not the best idea, instead, you want to do SEO but if you want to do SEO it's much more costly at the beginning so it depends on the customer how would he or he feels about his business. Because some customers just want to try pay-per-click for one month and see how this marketing works for them.

IQ 1.2.3: What are the major consideration factors in your organisation that influence the choice of new technology adoption for the business? (e.g. cost, resistance from employees/ customers/ suppliers etc.)

It depends on competition also the cost the how many clients are we expecting from.

IQ 1.2.4: How agile and flexible is your company to follow up on new technology trends?

It is very agile we like at some point we were changing most a lot of technologies we used in our company. When we were doing SEO engineering we were we should focus on blogs or I don't know how there is a lot of stuff man.

IQ 1.2.5: How do you consider DT to be a source of value creation in terms of both customers and your company itself?

It makes everyone's life easier and as a company what's that called a value.

IQ 1.2.6: How does DT impact organisational performance?

The first thing is efficiency, time efficiency the amount of time efficiency it provides is huge and second increasing income.

IQ 1.2.7: How does DT impact the following? Please discuss each of these: Leadership decision making, financial costs, organisational culture, employees (skills and adoption) and customer adoption).

- Leadership decision-making I don't know what to say about that.
- Financial costs, DT is not free and you will end up paying more but getting more from it. So you have to pay monthly or maybe yearly for certain services. Like the basics will be when you create a website you need a server which you have to pay monthly or choose to pay and you have to buy a domain per year. I mean you have to you rent the domain per year and it always it will have it will increase your expenses but it should exponentially increase your income also.
- Organisational culture - For my business, it was easy because all my employees were basically in their 20s so they all knew about technology. But for my customers for my clients, some of them didn't even know how to turn on their PC or turn on the app like how to use the laptop so it was difficult to teach them at their age the technology.
- Employee skills and adoption - Same thing. You can't teach them the technology.
- Customer adoption - you get the customer that you need to digitally transform so he's your customer what is the impact would you say in terms of the adoption it's difficult to teach them how to go about doing that challenge.

IQ 2.1.1: What is your understanding of DT strategy?

It is when a company decides to call transformation strategy they expect to increase their time efficiency income and employee satisfaction and client satisfaction also.

IQ 2.1.2: In your opinion, would you say that DT can assist the company to be proactive to new disrupters entering the market? How and why?

It depends on the company and what it's doing because online market even though we inside South Africa people still like customers still are not aware of online marketing. We don't have the same amount of customers that online marketing could get in other countries but even though that is the market. I mean the marketing is very saturated. So it's like with us certain big corporates when it comes to their marketing, not marketing but like SEO like let's see it's really hard to get top on top one of them okay because they've been there for a while they did this much years ago.

IQ 2.1.3: Is there a clear technology strategy in your organisation? If yes, how is it in line with your business strategy?

I mean our business strategies are the same as technology strategies. We're always up to date with technology and other businesses there are the benefits of the technology strategies.

IQ 2.1.4: Have your company used a DT strategy before? If yes, was it a formal or informal strategy? If no, why not?

We had a formal strategy. One person was designated to marketing and we had a certain budget for it also.

IQ 2.1.5: If a DT strategy is not being used in your organisation, is there any consideration to adopt it in future? If yes, why? If no, why not?

Yes definitely. Online presence is very important. That's why that's right but our main customers were not from online but like we go certain events and talk to this people with money and we pursue their work with us but then they search us online and that's when they get real persuasion from our business.

IQ 2.1.6: Should your company decide on using a formal DT strategy, how would you go about the formulation, adopting and implementing it in your organisation?

What I did was first I learned marketing myself then I hired someone that's how I implemented I wanted to know benefits before I make a step on it. Like some small team and explore it first and if the benefits start showing up then dedicate more budget to it.

IQ 2.1.7: In your opinion, is there any belief that a formal DT strategy can assist SEs to successful digitally transform? If yes, why? If no, why not?

Formal that's my business that's our main income. We have to market that's like literally a formal DT.

IQ 2.1.8: What are the major factors in your organisation that influence the choice of adopting and implementing a DT strategy for the business?

Google Analytics is a very big factor when it comes to marketing that's how we target the businesses. We check what customers do for example dentists we check-in at Google what are how many people search for it what kind of people search for dentistry and we gather this data and we call different dentists around the city and tell them and show them the proof and they see there are people that they can benefit from this I mean customers they can get benefit from.

IQ 2.2.1: How adoptive and responsive is your company to new technology?

Very and that depends on costs and time also.

IQ 2.2.2: How beneficial will adopting a DT strategy be to your company?

Yes, it depends on what the company is doing, what its employees like, it depends on a lot of stuff. We do make research before we offer them these kinds of and tells them if it's gonna work or not for them okay because DT is not always a benefit for the company but it can be also there I can't say no but like it can be just extra cost for nothing.

IQ 2.2.3: Was there ever a time that technology you could not meet a customer's need? If yes, why? If no, why not?

Yes, the market was oversaturated it was one of the reasons and one of them was the customer was expecting more compared to its budget.

IQ 2.2.4: What are the most important lessons learned regarding these changes that you have made? Please indicate any specific success or failures with regards to digital tech. implementation?

Testing, always test your strategy before you implement it or start using it.

IQ 2.2.5: In your opinion, where is your company now in terms of your organisational strategy?

It is going I have few plans. I have a few people on my mind but not right now.

IQ 2.2.6: Where do you want your organisation to be in terms of DT the future?

I don't know.

IQ 2.2.7: How will you get to where you want the company to be in the future?

The thing is we keep changing technology so I can't predict the future of technology and say something about it. What I can say is I want my company to own a certain online market and digital market that's our goal.

IQ 2.2.8: What were the most influential trends of DT within your industry and what are the expected future trends?

What I learned from trends is they always change, the trends always change so we kind of did this strategy where we work with trends and we open this few branches in our business that deals with these trends accordingly and create like small income businesses from that trend so we like on the way we try to implement all the trends we can. So our next plan is in our business is to implement certain AI (Artificial Intelligence) to help businesses right maybe each business would create their own ai system that's our goal maybe that will be like our future trend I think that's with the future trend of the businesses instead of people making the work the computer itself will do most of that work.

APPENDIX C2: INTERVIEW TRANSCRIPT OF I2

Please allow me to introduce myself again. My name is Mark Du Plessis and I am currently a Master's Degree student (Student number 203057791) at Cape Peninsula University of Technology, District Six Campus. The reason for my email to you is to seek permission from your company to conduct research that will assist me towards obtaining my Master's Degree.

The topic of my research is digital transformation Strategic Processes within Small and Medium Enterprises in Cape Town South Africa. The purpose of my study is to understand the business processes in implementing a digital transformation strategy within SMEs. My research method for collecting data will be a qualitative research method, through interviews with the participants. I am also looking at the data from objectivist viewpoint and therefore I am more interested in your journey, the journey of your company and how you follow up or adopt new technology to remain competitive in the market. The interview will last no longer than 45 minutes.

I would like to highlight the point that nothing will be done without the permission of your company and that ethically every step of my research will be conducted with your company's and the University's best interest at heart. No information about your company will also be published in my thesis without your permission including your name if you wish to stay anonymous. A draft of the transcribed interview will be emailed to the interviewee for validation to ensure that the information is correct and that nothing is missed or misinterpreted

Thank you again for joining me to do the interview today. I'm going to go straight into the research questions as there is quite a lot of questions that we need to go through.

A. General Information

Question 1: What is the name of your enterprise?

- P2.

Question 2: What is the size of your organisation in terms of employees?

- We are two people two.

Question 3: What is the nature of the business of your enterprise?

- So I do predominantly the service I offer is virtual administration and personal assistant services and the other aspect is events management so we do wedding coordinating party coordinating etc.

Question 4: What industry are you in?

- I'm currently I am servicing the security industry so I have a security company on my books and then I have a construction company on my books that's for my virtual PA and admin services and then I do ad hoc clients in terms of event planning and management that is personalised services you can say.

Question 5: What is the function or the position that you hold within the organisation?

- I'm the founder, I'm the...you can say I'm the founder and the CEO.

Question 6: Geographical location of your organisation

- I'm on the Cape Flat based in Bonteheuwel.

B. Interview Questions

RQ1: What are the business processes required for SEs to digitally transform their business?

RSQ 1.1: What are the benefits and characteristics of DT?

IQ 1.1.1: What does DT mean to you?

Okay, so that means that I've transferred what I do in terms of quoting and invoicing in a paper form to a more paperless form and doing everything virtually not virtually sorry but on my phone on my laptop via applications so that's my understanding of DT.

IQ 1.1.2: Do you believe DT is important to SEs? If yes, why? If no, why not?

Yes, I believe it's important because we need to keep up with the changes that's taking place in terms of technology because if I'm going to stay invoicing in a book or writing out quotes or you know then I'm gonna be left behind and so it's important for me to be up to date in terms of what's happening in terms of digital technology.

IQ 1.1.3: What opportunities have your business pursued in DT?

I have gone over to Zero so Zero is an application software that allows me to do quotes and then that quotes can be converted into invoices so that's I don't know if that force forms part of yeah so that's and I find that helps me because then I don't have to you know the App already got the information on the quote it just converts the quote to an invoice and therefore I don't have to do a lot of work the information's already there so that I'm enjoying.

IQ 1.1.4: What are the benefits of undergoing a DT?

Definitely, time because now I need to focus less on actually putting on my laptop doing an invoice I can just do everything from my phone so it saves me time to save me data and which is, in turn, saves me money.

IQ 1.1.5: How does the company use the following digital technologies? A) Mobile computing (e.g. mobile apps, tablets, smartphones) B) (Big) Data/Analytics (e.g. analysing/leveraging data, digitalisation of physical assets) C) Social media/social networks (e.g. for marketing, contact with customers) D) Internet/networks (e.g. website, e-commerce, cloud computing)

Okay so I'm gonna answer as I can remember in terms of social media I use Facebook marketplace and then I use my page and from my page, I would do advertising which people then share so it's basically word of mouth via social media and then in marketplace that's not direct marketing but you put it out there and people respond to you and then take it from there so that's been quite helpful because I'm getting a lot of responses. I've gotten few turnarounds in terms of an order actually but I'm at least getting my name out there which is really helpful and then storing I have a laptop so a lot of my stuff is stored on the laptop but I also make use of Google I s not sorry not what's it called storage on Google yeah Google Drive yes so I make use of Google Drive as well and then I have a cloud which is Mega so I use some of my stuff goes into the Mega cloud as well so I've got a few options that I make use of.

IQ 1.1.6: When did you start using this technology?

When the need arose when I discovered that so last year I was hacked my phone was hacked and so some of my passwords and stuff were leaked and so that was a real eye-opener someone used my business fraudulently or not use my business but use my picture as the face of their business so that kind of gave me a wake up so the way I am doing my storing as change so I use more passwords I use different passwords so I've decided to store in different places for this reason. So I started last year the I think mega started two years ago last year I started with Google Drive and then I suppose my laptop which is password protected is the safest place for me to store a lot of my documents and stuff so yeah.

IQ 1.1.7: What was it like before this technology was implemented?

I was just using a flash drive or a hard drive and then my hard drive fell and it broke and then I couldn't access anything so I had to start over again and that's how I learned that using those kind of devices are okay for temporary stuff but not for stuff that you would actually need to store long-term and so I found that the cloud was way better for that.

IQ 1.1.8: Why do your company use this technology? (Do your company take advantage of digital technology e.g. increase customer satisfaction, reduce costs)?

To reduce costs definitely and just for safety. For Zero also to reduce costs.

IQ 1.2.1: What historic/current challenges exist when undergoing a DT?

I suppose the time to figure out how the program works. I don't always have the time to sit and try to figure it out and so I prefer to check a tutorial on maybe Zero for instance find a tutorial show me how it works and go from there. I find it challenging to actually sit and just try to figure this thing out because I don't have the time because I'm also a mom of three kids and a wife and I'm studying full-time so it's quite challenging to sit and find the time to do stuff so I prefer to have access to a tutorial that I can quickly spend 10 to 15 minutes checking out and then from there try to figure out how to use a program or an application.

IQ 1.2.2: Which organisational strategies are used to overcome challenges and to create value with DT?

So I find a lot of my clients like to deal with WhatsApp and so instead of actually emailing them if there's something urgent I need to get from them or they need to get from me we've agreed that WhatsApp is an agreeable format to you so I would then send if they quickly need to send something to someone send a letter that I drew up for them via WhatsApp and they can forward it via WhatsApp so that kind of thing has really been helpful if you don't want us to log into an email or you know everything has become WhatsApp instant messaging easy so I find making use of those platforms are really helpful in terms of time. A lot of my quotes and invoicing I used to have to do on my laptop but now if a customer phones me and says listen please invoice out this client I can do it on my phone the logos on the everything's only I can just forward it from my phone so that's been really helpful.

IQ 1.2.3: What are the major consideration factors in your organisation that influence the choice of new technology adoption for the business? (e.g. cost, resistance from employees/ customers/ suppliers etc.)

Well if it's cost-effective if it's easier, if it doesn't have a lot of ads then I'll take it yes.

IQ 1.2.4: How agile and flexible is your company to follow up on new technology trends?

Very if I see something that I find would work for my company then I explore it immediately and like for instance Zero I found browsing Facebook that came up and then it said save your time by converting your code to invoices etc. and then I explored it and I'm enjoying it so if I see something that would benefit me then I immediately explore that because like I said earlier it's important for me to save time in doing what I do accurately still and efficiently so if it can give me that option to still be efficient and effective in what I'm doing for my clients then I'll definitely explore the options.

IQ 1.2.5: How do you consider DT to be a source of value creation in terms of both customers and your company itself?

How do I consider? I don't know how I would answer that question.

I find it's very important to be able to be digitally transformed in every aspect of my business however I do also like to have backups because you know anything can happen they can be load shedding, there can be a blackout, something can happen that causes you to not be able to use a digital platform and then only I would revert back to a paper invoice or the writing up something but generally, you know that happens very fine few in between so I rely heavily on digital platforms for everything that I do so yeah.

IQ 1.2.6: How does DT impact organisational performance?

The impact is great in terms of how quickly I can respond my response time my, completion time so that kind of helps me you know just because part of my business or at least one of the service offerings is getting things done for customers as soon as they need it so if someone was to phone me now and I'm on the road and they want something now I never want to be able to turn a customer away I always want to be able to help them even if I only have five minutes to do something that to take me an hour to do normally if I have that application to do it and to service my customer within that five minutes then it's very important for me to be able to do that because that's kind of what we offer the client you know you can phone us now and we'll do it for you immediately so yeah.

IQ 1.2.7: How does DT impact the following? Please discuss each of these: Leadership decision making, financial costs, organisational culture, employees (skills and adoption) and customer (adoption).

All impacts greatly because I rely on the digital platforms to get me business to get my business out they quickly to yeah so it's very reliant on it and it's very important to the business.

IQ 2.1.1: What is your understanding of DT strategy?

That should be a strategy having a strategy in place on how I can evolve in terms of digital applications I suppose how I can evolve in terms of what applications I use or what methods of digital devices I use in order to improve my business and the kind of business that I do so that's just I think having a plan in place or having taking a day out to explore okay what's on the et that can help me do my job better so yeah.

IQ 2.1.2 In your opinion would you say that a DT can assist the company to be proactive to new disrupters entering the et? How and why?

I'm not sure about that question I'm not sure.

Okay no that's fine look there's no right or wrong answer to the questions it's purely based on your experience it's fine if you don't know you don't know it's fine.

IQ 2.1.3: Is there a clear technology strategy in your organisation? If yes, how is it in line with your business strategy?

Technology strategy I can't say that there is at the moment because like I said it's just me and my partner and we kind of I suppose only when we recruit more people we would be able to have to answer that question, but at the moment I think that what we have is sufficient for what we need.

IQ 2.1.4: Have your company used a DT strategy before? If yes, was it a formal or informal strategy? If no, why not?

I think yes, but it was informal because it was just me trying to explore how we can do things better and that's how I found Zero and Mega but it wasn't anything formal no.

IQ 2.1.5: If a DT strategy is not being used in your organisation, is there any consideration to adopt it in future? If yes, why? If no, why not?

Yes, definitely I would adopt one in the future like I say if I want to expand if I have more people working for me then definitely I would want to make sure that they are also digitally equipped to offer the kind of service that I expect and strive for my business to offer.

IQ 2.1.6: Should your company decide on using a formal DT strategy, how would you go about the formulation, adopting and implementing it in your organisation?

Say again.

So if you decide you're gonna go like you said in the previous question how would you go about formulating, adopting and implementing a formal DT strategy within your organisation?

I have no idea I would have to do some inquiry on that.

No, that's absolutely fine that's what the purpose of the study is about don't worry it's to test out the waters.

IQ 2.1.7: In your opinion, is there any belief that a formal DT strategy can assist SEs to successful digitally transform? If yes, why? If no, why not?

I'm not sure.

IQ 2.1.8: What are the major factors in your organisation that influence the choice of adopting and implementing a DT strategy for the business?

That it's going to work that it's going to be cost-effective that it's going gonna have a return on its investment you cannot say.

IQ 2.2.1: How adoptive and responsive is your company to new technology?

NB* this question was answered in question 1.2.4.

IQ 2.2.2: How beneficial will adopting a DT strategy be to your company?

Yes, because it can improve my service.

IQ 2.2.3: Was there ever a time that technology you could not meet a customer's need? If yes, why? If no, why not?

I think my last incident was when I was on the road and a customer phone when they needed an in-depth letter or report I didn't have the software on my phone I only have it on my laptop and so I wasn't able to help that client here to manually write a letter because I didn't have my laptop with me. So I would say that was the only instance and that has taught me to have a document readily available on my phone that I can just edit and then convert to pdf and see into the client.

IQ 2.2.4: What are the most important lessons learned regarding these changes that you have made? Please indicate any specific success or failures with regards to digital tech. implementation?

That I need to make sure that I can always assist my client it doesn't matter you know where I am if it's business hours I need to be able to help my client and so it's taught me that I need to have their documents and everything readily available so that I can service them.

IQ 2.2.5: In your opinion, where is your company now in terms of your organisational strategy?

I'd say we're halfway there.

IQ 2.2.6: Where do you want your organisation to be in terms of DT the future?

I would want us to be on the front line you know yeah I don't know if the front line is the right word but I'd want us to be on par with what's happening.

IQ 2.2.7: How will you get to where you want the company to be in the future?

Keeping myself informed checking out what is digitally available for the kind of work that I do so yeah research.

IQ 2.2.8: What were the most influential trends of DT within your industry and what are the expected future trends?

I think for the virtual administration part would be my quoting and my ordering systems and my invoicing systems like for instance you know but I would like to explore what is out there in terms of events management I haven't done that yet so I definitely want to see if there are apps and stuff available that can assist me to do that more effectively as well.

APPENDIX C3: INTERVIEW TRANSCRIPT OF I3

Please allow me to introduce myself again. My name is Mark Du Plessis and I am currently a Master's Degree student (Student number 203057791) at Cape Peninsula University of Technology, District Six Campus. The reason for my email to you is to seek permission from your company to conduct research that will assist me towards obtaining my Master's Degree.

The topic of my research is digital transformation Strategic Processes within Small and Medium Enterprises in Cape Town South Africa. The purpose of my study is to understand the business processes in implementing a digital transformation strategy within SMEs. My research method for collecting data will be a qualitative research method, through interviews with the participants. I am also looking at the data from objectivist viewpoint and therefore I am more interested in your journey, the journey of your company and how you follow up or adopt new technology to remain competitive in the market. The interview will last no longer than 45 minutes.

I would like to highlight the point that nothing will be done without the permission of your company and that ethically every step of my research will be conducted with your company's and the University's best interest at heart. No information about your company will also be published in my thesis without your permission including your name if you wish to stay anonymous. A draft of the transcribed interview will be emailed to the interviewee for validation to ensure that the information is correct and that nothing is missed or misinterpreted

Thank you again for joining me to do the interview today. I'm going to go straight into the research questions as there is quite a lot of questions that we need to go through.

A. General Information

Question 1: Name of the organisation

- P3

Question 2: Size of the organisation

1-5 employees

Question 3: What is the nature of the business of your enterprise?

- Service business that helps entrepreneurs and small businesses tell their online stories and grow with DM – marketing of products and services using digital technology by using the best tools to produce the best possible outcome.

Question 4: What industry are you in?

- Marketing Industry

Question 5: What function/position do you hold in the organisation?

- Owner of Sole Proprietor

Question 6: Geographical location of your organisation

- Cape Town, South Africa

B. Interview Questions

RQ1: What are the business processes required for SEs to digitally transform their business?

RSQ 1.1: What are the benefits and characteristics of DT?

IQ 1.1.1: What does DT mean to you?

I have always been passionate about digital innovation, learning and everything that shapes it. I love innovation and I am always on the lookout for the latest news in the world of marketing, new technologies and the web. It has also helped shape my career and the Internet has given me access to so many digital tools which allows me to learn and be kept informed.

IQ 1.1.2: Do you believe DT is important to SEs? If yes, why? If no, why not?

Yes! I do believe DT is extremely vital to SEs and all businesses, regardless of size. It's more important than ever to stay competitive and relevant in the digital world. Because DT is focused on creating a new way of business. It's about giving employees the answer and empowering them to make good decisions. Technology can crunch the numbers, do it quickly, and free up SEs, giving them the time, they need to make better business decisions.

IQ 1.1.3: What opportunities have your business pursued in DT?

I have used technology to automate most of my processes and use online schedulers, software, and online tools to make my life way simpler which has helped me improve and modernise how I do things.

IQ 1.1.4: What are the benefits of undergoing a DT?

DT transforms and enhances customer experience. Drives data-based insights. Encourages collaborations across an organisation's departments.

Increases agility and innovation. Updates skillsets and knowledge of employees.

Allows organisations to foster a digital culture. Assists with the consolidation of processes and operations within an organisation.

IQ 1.1.5: How does the company use the following digital technologies? A) Mobile computing (e.g. mobile apps, tablets, smartphones) B) (Big) Data/Analytics (e.g. analysing/leveraging data, digitalisation of physical assets) C) Social media/social networks (e.g. for marketing, contact with customers) D) Internet/networks (e.g. website, e-commerce, cloud computing)

I spend majority of my time on my iPhone and Microsoft Surface Pro – creating and scheduling content, hosting virtual meetings and live broadcasts for my customers. All of my work is done on these two devices. I use many data analysis and dash boarding tools to analyse the DM of my clients and my own followers. I use Facebook, Instagram, LinkedIn and Mail Chimp to advertise my business but also work with all the other platforms to assist my clients with telling their online stories through DM. I am currently building an e-commerce site for myself and also develop and design websites for my clients. I make use of Software as a service (SAAS) - Dropbox, Google Drive, OneDrive to assist with increased storage.

IQ 1.1.6: When did you start using this technology?

Since January 2021 when I started out.

IQ 1.1.7: What was it like before this technology was implemented?

N/A

IQ 1.1.8: Why do your company use this technology? (Do your company take advantage of digital technology e.g. increase customer satisfaction, reduce costs)?

I do take advantage of this technology due to reduced costs as the billing model is paid as per usage and I was found that recurring expenses are much lower than traditional. This allows for increased storage and flexibility. It is also scalable as I can pay for the amount of storage required and use in emergency back-up plan.

RSQ 1.2: What are the business challenges for SEs to digitally transform?

IQ 1.2.1: What historic/current challenges exist when undergoing a DT?

It is seldom about the availability of technology, majority of the challenges are internal factors such as employee pushback, lack of expertise to lead digitisation initiatives, organisational structure, lack of strategy and limited budget.

IQ 1.2.2: Which organisational strategies are used to overcome challenges and to create value with DT?

The whole organisation needs to work towards the common goal.

IQ 1.2.3: What are the major consideration factors in your organisation that influence the choice of new technology adoption for the business? (e.g., cost, resistance from employees/customers/suppliers etc.)

As I am a start-up costs are the biggest factor as well as my customers' needs.

IQ 1.2.4: How agile and flexible is your company to follow up on new technology trends?

I am very agile and flexible as I continuously read up and learn about current technological advancements and keep myself up to date, and even try stay ahead of the game in DM but following overseas trends.

IQ 1.2.5: How do you consider DT to be a source of value creation in terms of both customers and your company itself?

Digitalisation lowers the costs of information exchange, coordination, safeguarding, enforcing etc. and therefore unleashes value, the more exchanges, the higher the potential benefits. More accessible information will reduce information asymmetry between market participants, which will in turn make markets more fluid and influence competition.

IQ 1.2.6: How does DT impact organisational performance?

DT often referred to as digital business transformation leads to adjustments or disruptions of the business model. It often requires innovation and creativity skills, and the project needs to be led by a problem solver in order for it not to become disruptive.

IQ 1.2.7: How does DT impact the following? Please discuss each of these: Leadership decision making, financial costs, organisational culture, employees (skills and adoption) and customer (adoption).

DT is magical and comprehensive and customised solutions can offer simple automation of crucial process which has a massive impact on all the above. Financial costs should definitely be taken to account especially for skills and adoption for both employees and customers. Leaders would be required to shift focus away from digital strategy and prioritise the cultural alignment of the transformation in order for the transformation to have a positive impact on the organisation.

RQ2: How can SEs efficiently organise, support and enable a DT strategy?

RSQ 2.1: What are the factors influencing the formulation, adoption and implementation of a DT strategy?

IQ 2.1.1: What is your understanding of DT strategy?

A business strategy developed by an organisation in order to make use of digital technologies to create new—or modify existing—business processes, culture, and customer experiences to meet changing business and market requirements.

IQ 2.1.2: In your opinion, would you say that DT can assist the company to be proactive to new disrupters entering the market? How and why?

Yes, as DT forces organisations to be more innovative and creative as well as look at new ways to automate processes and enhance the customer's experience.

IQ 2.1.3: Is there a clear technology strategy in your organisation? If yes, how is it in line with your business strategy?

I am always on the lookout for new trends and tools and looking at what other professionals in my field are doing. I enjoy networking and learning more about what work's in other organisations similar to mine overseas and use this to strategise and keep me ahead of the pack in SA.

IQ 2.1.4: Have your company used a DT strategy before? If yes, was it a formal or informal strategy? If no, why not?

Yes, Informal and very flexible.

IQ 2.1.5: If a DT strategy is not being used in your organisation, is there any consideration to adopt it in future? If yes, why? If no, why not?

N/A

IQ 2.1.6: Should your company decide on using a formal DT strategy, how would you go about the formulation, adopting and implementing it in your organisation?

I would work through case studies, research and then use this to formulate, adopt and implement this in my organisation.

IQ 2.1.7: In your opinion, is there any belief that a formal DT strategy can assist SEs to successful digitally transform? If yes, why? If no, why not?

As I am the only person in my business, I don't think it is necessary to have a formal strategy in place, I do however feel that in bigger organisations it is imperative to have this in place in order for the whole organisation to be on the same page and focused on the same goal.

IQ 2.1.8: What are the major factors in your organisation that influence the choice of adopting and implementing a DT strategy for the business?

Myself

RSQ 2.2: What are the digital opportunities for SEs to adopt and implement a DT strategy?

IQ 2.2.1: How adoptive and responsive is your company to new technology?

Very adoptive and responsive as I need to be seen as leading the way.

IQ 2.2.2: How beneficial will adopting a DT strategy be to your company?

It is beneficial to all companies, especially mine.

IQ 2.2.3: Was there ever a time that technology you could not meet a customer's need? If yes, why. If no, why not?

No, I have always managed to find technological tools to use that meet my client's needs. Time for research is required but there is always something available that is either ready to use or customisable.

IQ 2.2.4: What are the most important lessons learned regarding these changes that you have made? Please indicate any specific success or failures with regards to digital tech. implementation?

Research is imperative, and you always need to be aware of what is going on around you. You need to always be ready to address your core problems without distracting yourself by playing catch-up or taking big, poorly planned risks.

IQ 2.2.5: In your opinion, where is your company now in terms of your organisational strategy?

In today's complex business environment, it's imperative that I blaze these new trails by having the right infrastructure, operations, and technology in place to ensure my compliance, longevity and ultimate success. I try to keep up to date with trends etc. to ensure that I can lead my clients through the tech revolution.

IQ 2.2.6: Where do you want your organisation to be in terms of DT the future?

At the forefront of the race as an innovator/disruptor.

IQ 2.2.7: How will you get to where you want the company to be in the future?

I will continue to keep pace and lead through innovation by following trends within my industry, continuously learning, and embracing technology to ensure that my organisation keeps up with the "always-connected" customers and continues to deliver an unmatched client experience. I will endeavour to truly understand how to drive value with DT, careful control, engagement, and sufficient investments in new opportunities.

IQ 2.2.8: What were the most influential trends of DT within your industry and what are the expected future trends?

FB peaked and lost credibility, also lost ground with younger demographic. Instagram was still a hit with younger demographics (under 30) but after removing the likes feature in some Countries has caused users to drift away and created a need for quality content. Chatbots have started to dominate customer service allowing customers to get a more personal or focussed interaction without pulling too much limited human resources. Video continues to be powerful and high engaging and have improved business conversion rates with live video and streaming. Content marketing remained an essential component of DM. Users are more active on messaging apps and marketers use WhatsApp and Messenger to engage and reach more clients. Email marketing has become more personalised. Interactive content is highly effective and offers a more immersive and engaging experience. Interactive polls & quizzes, AR ads and 360 videos make the experience more memorable and help customers feel more connected to the brand. Omnichannel Marketing was and still is vital. eCommerce and Shoppable posts are more prevalent on Instagram. Mobile first web design with features like voice detection and camera use integrated into your website Gamification Visceral experiences with AR and VR AI Experiences with AR and VR.

APPENDIX C4: INTERVIEW TRANSCRIPT OF I4

Please allow me to introduce myself again. My name is Mark Du Plessis and I am currently a Master's Degree student (Student number 203057791) at Cape Peninsula University of Technology, District Six Campus. The reason for my email to you is to seek permission from your company to conduct research that will assist me towards obtaining my Master's Degree.

The topic of my research is digital transformation Strategic Processes within Small and Medium Enterprises in Cape Town South Africa. The purpose of my study is to understand the business processes in implementing a digital transformation strategy within SMEs. My research method for collecting data will be a qualitative research method, through interviews with the participants. I am also looking at the data from objectivist viewpoint and therefore I am more interested in your journey, the journey of your company and how you follow up or adopt new technology to remain competitive in the market. The interview will last no longer than 45 minutes.

I would like to highlight the point that nothing will be done without the permission of your company and that ethically every step of my research will be conducted with your company's and the University's best interest at heart. No information about your company will also be published in my thesis without your permission including your name if you wish to stay anonymous. A draft of the transcribed interview will be emailed to the interviewee for validation to ensure that the information is correct and that nothing is missed or misinterpreted

Thank you again for joining me to do the interview today. I'm going to go straight into the research questions as there is quite a lot of questions that we need to go through.

A. General Information

Question 1: Name of your enterprise?

- P4

Question 2: Size of your organisation?

- That's the one to five.

Question 3: What is the nature of your enterprise?

- Sure we focus on DM, so we're a digital agency.

Question 4: What industry are you in?

- Same thing as DM.

Question 5: What function or position do you hold in the organisation?

- I'm the Managing Director.

Question 6: Geographical location of your enterprise?

- We're based in Table View, Cape Town.

B. Interview Questions

RQ1: What are the business processes required for SEs to digitally transform their business?

RSQ 1.1: What are the benefits and characteristics of DT?

IQ 1.1.1: What does DT mean to you?

Sure to me it's just the ease of workflow through just Utilising various technologies that just allow speedily processes and allow you to get rid of the manual work and just optimise productivity.

IQ 1.1.2: Do you believe DT is important to SEs? If yes, why? If no, why not?

Yes, absolutely I think it's definitely especially being a Managing Director of a small enterprise you like to try and focus on actually getting more clients and just increasing your overall revenue budget, increasing your sales or clients acquisition and DT definitely allows you the time to go about doing so

it's definitely a help. I mean we try wherever we can to integrate these digital platforms that make things easier.

IQ 1.1.3: What opportunities have your business pursued in DT?

Wow, there's quite a few so we actually also create these systems that integrates. I mean it's just web apps pretty much that just allow us to streamline things like sending invoices, managing polls and things like that. Also, I mean client communications as well we make use of a couple of email providers that help us with these things getting clients into a specific funnel and yeah there are so many different technologies that we use it's difficult to pinpoint now but I would say the main one is creating our own CMS. I'm not sure if you're familiar with what a CMS is, but it's pretty much just like a little business portal that we have that pretty much has access to all the things we need and sort of automates a lot of the manual work that we do.

IQ 1.1.4: What are the benefits of undergoing a DT?

Look I think the benefits of something like that would be or definitely be automating a lot of the things that you can automate. So just creating some logic that then sorting through things that you would otherwise have to manually do. So I would say a big benefit is time I mean you have a lot more time in your hands to do the things that are important to the business.

IQ 1.1.5: How does the company use the following digital technologies? A) Mobile computing (e.g. mobile apps, tablets, smartphones) B) (Big) Data/Analytics (e.g. analysing/leveraging data, digitalisation of physical assets) C) Social media/social networks (e.g. for marketing, contact with customers) D) Internet/networks (e.g. website, e-commerce, cloud computing)

At this stage we just using mobile computing for streamline communication with our clients via WhatsApp and yeah I think for now that's all we're using the mobile site for.

Then secondly data/analytics like for analysing, leveraging of data, digitalisation how does your company use that? Look while we being a marketing agency we have we have to deal with a lot of analysing data and optimising client's campaigns and things to ensure that they're running smoothly. We do send reports to our clients and it requires a lot, so I would say for mainly for reports to our clients we're using this data.

In social media, social networks for marketing, making contacting with customers how do you use that? So at this stage it's more for just having our presence there we're not really Utilising it to contact customers or for any marketing at this stage yeah there just hasn't been much time to market our own business on social networks but we have tried in the past but we feel for our industry it doesn't really work.

And then lastly Internet and networks like websites, e-commerce, cloud computing how do your organisation use that?

Oh, that is a vital vital thing in our industry obviously if you don't have a website people can't find you and also being a digital agency you have to have a website. I mean it's like going to a company that doesn't use their own product, for example, it pretty much just shows that there's no belief in the product but yeah in websites definitely we use it for client acquisition. Cloud computing, we use quite a bit we use virtual servers so we have servers with Google we have servers with Digital Ocean in the States and we use that to run a lot of our services like web apps and things like that.

IQ 1.1.6: When did you start using this technology?

Okay, so this business requires all of these technologies so it was from the get-go from the beginning the business started in 2013 if you need a bit of a timeline but yeah.

IQ 1.1.7: What was it like before this technology was implemented?

The business was non-existent yeah.

IQ 1.1.8: Why do your company use this technology? (Do your company take advantage of digital technology e.g. increase customer satisfaction, reduce costs)?

Maybe just to circle back it's a time thing. It's all about optimising time and seeing where we can do the work that's important to us and I think a lot of it does help with increasing customer satisfaction as well and reducing costs because if we didn't use these systems we'd have to hire people to do that and it would cost us much more.

RSQ 1.2: What are the business challenges for SEs to digitally transform?

IQ 1.2.1: What historic/current challenges exist when undergoing a DT?

We have helped a few companies go through a DT and I think it's just a big thing of getting employees to get comfortable with using the new technologies as opposed to exile or old mundane technologies like filing and writing things down. The biggest challenge has just been getting employees on board and gets them to understand the technology in itself.

IQ 1.2.2: Which organisational strategies are used to overcome challenges and to create value with DT?

Oh look I think for that something like a couple of training sessions would have done well and just maybe enforcing the fact that they could no longer use the older ways of doing things and they had to maybe as part of their KPI (Key Performance Indicators) use the new system.

IQ 1.2.3: What are the major consideration factors in your organisation that influence the choice of new technology adoption for the business? (e.g. cost, resistance from employees/customers/suppliers etc.)

Oh, we don't really say nay to a lot of new technologies. If the technology can help us increase our productivity it's normally a yay, but I think the second level from that is definitely costs it can't be unreasonably priced but yeah I think a lot of the ones that work for us are definitely normally a yay.

IQ 1.2.4: How agile and flexible is your company to follow up on new technology trends?

We jump on it as soon as we find out about them we are on it. I mean it's vital for us to keep up with the new technologies that are being released and otherwise we won't be able to grow either. You have to be able to adapt.

IQ 1.2.5: How do you consider DT to be a source of value creation in terms of both customers and your company itself?

Sure look that's yes it's a bit [slight pause] look normally...okay with our CMS what we could do is maybe provide a better platform to allow for streamlined payment I guess that would help the customer side but for us, I mean for us it's definitely being able to do a lot of our work in one place and rather than going to all these different technologies, it's integrating everything in one. For the customers, I think it's also maybe just like a little overview on billing over a specific period being able to see reports over a specific period as well. So yeah I think it's holistically I think it's just a consolidation of everything between client comms and client service as well as allowing us to do our work as well quicker yeah.

IQ 1.2.6: How does DT impact organisational performance?

Look this goes back to the fact that it allows with a lot of time optimisation especially streamlining old mundane tasks where you have to sit and copy and paste or even maybe probably what you would have to do now after this transcribing things and where you could actually implement technologies that could transcribe things for you and even make calculations for you and things like that as well so I think it's definitely a time optimisation and time is our most valuable assets yeah so I think definitely time.

IQ 1.2.7: How does DT impact the following? Please discuss each of these: Leadership decision making, financial costs, organisational culture, employees (skills and adoption) and customer (adoption).

I think I haven't really made use of digital technologies to make decisions really I think a lot of them has just been being involved in the business but I mean just from my history of being in a corporate space I think just allowing stream and allowing time for quicker decisions and just also having holistic views over an employee's information performance as well I think it definitely helps with the decision making but yeah I can't say much for it because I don't use it often to make decisions.

Financial cost makes a big difference like I said earlier instead of having to hire someone to do all the work say hiring an accountant or something it would be much easier to use an automation or even an accounting system that can do that for you. Also, it comes down to a time thing as well you know you can do it in a much quicker time than what a human can.

Organisational culture that's a good question I don't think I'd be able to comment on that.

In terms of skills and adoption well, I think there's a lot of things that employees can learn from technologies. I think a lot of technologies nowadays have systems and also platforms in place where employees can learn new skills and sort of educate themselves a little bit more. So I think it's vital to employees and also just their knowledge set and skill sets as well.

How does it impact on customers in terms of the adoption of DT? I think it definitely would help influence them to run to go through a DT themselves. I mean just showing and just going through one transformation that I've gone through with the client and just her showing her clients on how it freed up their time and automated things where they don't have to sit or even hire an employee to do these tasks these technologies can definitely help with that and I think that a lot of them see that and see the value

in in in these new technologies and they definitely look at taking it taking these technologies on and compiling or conducting a transformation themselves.

RQ2: How can SEs efficiently organise, support and enable a DT strategy?

RSQ 2.1: What are the factors influencing the formulation, adoption and implementation of a DT strategy?

IQ 2.1.1: What is your understanding of DT strategy?

Oh, I think it's a streamlined process and it's a streamlined process in which you can take manual tedious tasks and convert or use systems to help with bettering those tasks to help with increasing the workflow and productivity.

IQ 2.1.2: In your opinion, would you say that DT can assist the company to be proactive to new disruptors entering the market? How and why?

I'm not sure I don't think so. Actually sorry there is there are things like competitor technologies where you can spy your competitors and things like that and I think those sort of technologies will definitely assist in picking up disruptors entering the markets and also I think even news company's outputs with things like that. Just by being informed on the news and just by being proactive about hearing certain things and seen certain trends you can then make important decisions based on that.

IQ 2.1.3: Is there a clear technology strategy in your organisation? If yes, how is it in line with your business strategy?

There isn't at this stage we are still a very small business and we are still developing a lot of processes and policies and I think it's definitely one we would need to get on to but there isn't at this stage.

IQ 2.1.4: Have your company used a DT strategy before? If yes, was it a formal or informal strategy? If no, why not?

Well I think yes because when the company started it would have had to have gone through it wouldn't be a transformation it would be more of a start-up because we were never using manual ways of doing things and it was always newer technologies that we were using so I think it would have been an informal one if we were using manual ones but yeah I don't think it was don't think there was a transformation it was more of just a start-up straight-up thing.

IQ 2.1.5: If a DT strategy is not being used in your organisation, is there any consideration to adopt it in future? If yes, why? If no, why not?

Well look yes we'd definitely be open to an audit and maybe a strategy thereafter. I think anything that would help with increasing productivity and therefore allowing increasing time as well would definitely be vital and would definitely help the business grow as well.

IQ 2.1.6: Should your company decide on using a formal DT strategy, how would you go about the formulation, adopting and implementing it in your organisation?

I would most likely consider a third party and consider a company to assist us with something like that.

IQ 2.1.7: In your opinion, is there any belief that a formal DT strategy can assist SEs to successful digitally transform? If yes, why? If no, why not?

Yes, I definitely do think so the reasoning behind this is that a strategy is sort of like a recipe and instructions on how to go about doing things. Whereas if you just use an informal strategy it's going to be everywhere and there's no sort of plan on how to adopt the strategy and implement it. So it's I think a formal strategy would definitely be vital just because of the structure that it provides.

IQ 2.1.8: What are the major factors in your organisation that influence the choice of adopting and implementing a DT strategy for the business?

It would definitely be productivity and costs definitely. Obviously the costs should not out way the value, but yeah it should definitely provide value to the business as well.

RSQ 2.2: What are the digital opportunities for SEs to adopt and implement a DT strategy?

IQ 2.2.1: How adoptive and responsive is your company to new technology?

Note: This question is similar to question 1.2.4 and was therefore not asked.

IQ 2.2.2: How beneficial will adopting a DT strategy be to your company?

At this stage, I don't think it would be much better than what it currently is. We would be open to obviously having an audit done and maybe having a look and seeing where things could be better but I don't think it would be a major thing.

IQ 2.2.3: Was there ever a time that technology you could not meet a customer's need? If yes, why? If no, why not?

Yes, and I think the reasoning behind that was just the customers understanding of the technology and the customer's willingness to adapt to using that technology. I think a lot of old-fashioned customers like to be stuck in their ways and keep using the things that they're using and then they're not open to adapting to new technologies.

IQ 2.2.4: What are the most important lessons learned regarding these changes that you have made? Please indicate any specific success or failures with regards to digital tech. implementation?

Nothing at this stage, but I think it would just be about educating the customer a little bit more before implementing some transformation on their side. Because education and just expressing the value a little bit more as well, that would definitely be a lesson now.

IQ 2.2.5: In your opinion, where is your company now in terms of your organisational strategy?

We literally just moved into an office last week so yeah we definitely in the beginning stages.

IQ 2.2.6: Where do you want your organisation to be in terms of DT the future?

I haven't put much thought into that possibly I can't think of anything and I can't think of a response to that.

IQ 2.2.7: How will you get to where you want the company to be in the future?

Okay no that is fine because then I can't ask you the next question because the next question would have been how would you have gotten where you want to be in the future, but that is fine. I mean you've got a lot going on now at this point in time so that's getting your attention.

IQ 2.2.8: What were the most influential trends of DT within your industry and what are the expected future trends?

That's a difficult one to answer as well. There are so many different trends and it's all about Internet usage and how consumers use the Internet, but I don't think a lot has changed in a while. I think I don't really have an answer to this one either. I think the most influential trends would be the starting of a new social platform such as TikTok and yeah just having to adapt and try and learn how to use their advertising dashboard and just trying to understand those things. So that's definitely a trend that had to be jumped on and future expected trends look it's difficult to tell but I think video TikTok has made video big and I think video content is a big upcoming trend which a lot of our customers should be jumping onto but yeah that's it from my side.

APPENDIX C5: INTERVIEW TRANSCRIPT OF I5

Please allow me to introduce myself again. My name is Mark Du Plessis and I am currently a Master's Degree student (Student number 203057791) at Cape Peninsula University of Technology, District Six Campus. The reason for my email to you is to seek permission from your company to conduct research that will assist me towards obtaining my Master's Degree.

The topic of my research is digital transformation Strategic Processes within Small and Medium Enterprises in Cape Town South Africa. The purpose of my study is to understand the business processes in implementing a digital transformation strategy within SMEs. My research method for collecting data will be a qualitative research method, through interviews with the participants. I am also looking at the data from objectivist viewpoint and therefore I am more interested in your journey, the journey of your company and how you follow up or adopt new technology to remain competitive in the market. The interview will last no longer than 45 minutes.

I would like to highlight the point that nothing will be done without the permission of your company and that ethically every step of my research will be conducted with your company's and the University's best interest at heart. No information about your company will also be published in my thesis without your permission including your name if you wish to stay anonymous. A draft of the transcribed interview will be emailed to the interviewee for validation to ensure that the information is correct and that nothing is missed or misinterpreted

Thank you again for joining me to do the interview today. I'm going to go straight into the research questions as there is quite a lot of questions that we need to go through.

A. General Information

Question 1: What is the name of your enterprise?

- P5.

Question 2: Size of the organisation

- We're small there's only two employees.

Question 3: What is the nature of your enterprise?

- We are a digital agency providing online marketing services.

Question 4: What industry are you in?

- Marketing.

Question 5: What function/position do you hold in the organisation?

- I'm the director and specialist marketing person.

Question 6: Geographical location of your organisation?

- We're based in Plumstead.

B. Interview Questions

RQ1: What are the business processes required for SEs to digitally transform their business?

RSQ 1.1 What are the benefits and characteristics of DT?

IQ 1.1.1: What does DT mean to you?

I think we look at it as replacing old systems and processes with online alternatives.

IQ 1.1.2: Do you believe DT is important to SEs? If yes, why? If no, why not?

We feel that it's critical in order to remain competitive in any industry.

Q 1.1.3: What opportunities have your business pursued in DT?

I mean this is a difficult question to answer so you know our business is all you know all sort of framed around the digital world so for us it's not really a transformation but it's just always been like that. So it's a difficult one for me to answer to be honest you know everything that we do is digital.

Okay so the core existence of your business basically is DT it's based around digitally transform if I am correct.

Pretty much and helping other people digitally transform you know.

IQ 1.1.4: What are the benefits of undergoing a DT?

So i would say increased efficiency you know across the different parts of the company and there's usually a smaller staff requirement because you can save on something like some of the resource and also just remaining relevant you know if you don't move with the times and you know join everyone else that's becoming digital and you're going to become irrelevant and you're going to at the end of the day not get very far with your business going into you know 2022 2023.

IQ 1.1.5: How does the company use the following digital technologies? A) Mobile computing (e.g. mobile apps, tablets, smartphones) B) (Big) Data/Analytics (e.g. analysing/leveraging data, digitalisation of physical assets) C) Social media/social networks (e.g. for marketing, contact with customers) D) Internet/networks (e.g. website, e-commerce, cloud computing)

So we use all four of those extensively and you know the mobile computing is you know we probably use that besides for our day-to-day delivery of services we use you know apps and tablets and smartphones and everything for a lot of our website testing so you know when we deliver a project then we need to test it to make sure that it functions correctly on all those sort of different devices so that would probably be how we use mobile computing. for analytics we use we use Google Analytics extensively for client reporting and so you know these days clients want to be able to measure their performance based on analytic data so that's how we do that in regards to social media networks and Internet and websites and e-commerce you know we're we're fully in ingrained in all those areas and it's all at the end of the day again a difficult question to answer but at the end of the day it's all for marketing for our clients and ourselves.

IQ 1.1.6: When did you start using this technology?

it was from day one so you know our company's build upon all these things that they were from from the very start which was in 2010 when we when we started the company.

Okay perfect thank you and and okay so so I mean you the next question asked what was it like before but you don't even know what it was like before because you it was part of your very existence so even asking you that question would not be relevant.

IQ 1.1.7: What was it like before this technology was implemented?

Already answered.

IQ 1.1.8: Why do your company use this technology? (Do your company take advantage of digital technology e.g. increase customer satisfaction, reduce costs)?

I mean it's you know obviously quite a involved question with many answers but i summed it up with to deliver efficient services so at the end of the day it's about efficiency for us you know making sure that we can you know deploy our solutions efficiently so we can receive payments efficiently so that we can it's all about efficiency of services and lean efficiency of services in various ways and means.

RSQ 1.2: What are the business challenges for SEs to digitally transform?

IQ 1.2.1: What historic/current challenges exist when undergoing a DT?

So the first one is the obvious cost is obviously a huge challenge for many businesses especially the small informal businesses and then resistance to change you know people are creatures of habit and they don't want to change and then there's also the obvious concern over the loss of jobs.

IQ 1.2.2: Which organisational strategies are used to overcome challenges and to create value with DT?

I would suggest to stagger the transformation and do it over a period of time that period of time is obviously dependent on the size of the company and you know number of employees that you have to you know to ultimately change the mind-sets of and your client base you know how are they all digitally savvy or are they all you know pensioners in an old age home you know it's very different depending on who you're dealing with but so we would suggest staggering the transformation and then upskilling the staff to maintain jobs so if you want to not lose those jobs you would have to upskill the staff you know

to be able to take on more senior roles where they could be they could still be maintained and they could still have a valued you know value to add to the business.

IQ 1.2.3: What are the major consideration factors in your organisation that influence the choice of new technology adoption for the business? (e.g. cost, resistance from employees/customers/suppliers etc.)

I think you've got to consider cost of course there's always the cost component and then we also would highly consider the integration abilities with our existing systems. So you know if we're bringing on a new system and we've got to make sure that it speaks to our CRM speaks to our billing system speaks to our analytics systems and so integration systems is a very important one for us after costs.

IQ 1.2.4: How agile and flexible is your company to follow up on new technology trends?

Very so we you know we're very agile we're flexible we're always bringing on new new software we bring on new online services trialling things where we're usually early adopters to new technology and so so definitely very much on top of all of that

IQ 1.2.5: How do you consider DT to be a source of value creation in terms of both customers and your company itself?

I think you know we can set things up so that their customers can get what they need online you know everyone's looking to do everything online these days so we equip our clients to be able to deliver their products or their services and not to just a local demographic that they may be restricted to today but to to go online to make use of the ability to deliver their products and services to not only the whole South Africa but ultimately the whole of the world. and you know the other source of value is just from from the business perspective is just being able to get the job done quicker and easier you know if you're if you're able to coordinate the delivery of a package remotely over the Internet by telling the warehouse to send it to dispatch to send it to a courier company etc and without going and literally loading that in your van and doing that yourself there's obviously efficiency there so you get the job quicker and easier so those are the two things that we would consider.

IQ 1.2.6: How does DT impact organisational performance?

Definitely definitely positive and you know I've summed it summed up as streamlines operations so you know various parts of the business are all going to benefit so I think it just ultimately streams and it streamlines performance.

IQ 1.2.7: How does DT impact the following? Please discuss each of these: Leadership decision making, financial costs, organisational culture, employees (skills and adoption) and customer (adoption).

I think from leadership decision making leaders in their departments or in the company expect digital knowledge from the teams so you know you ultimately can't be hiring you know depending on the business of course but you can't be hiring people these days that don't have any knowledge of digital in some way shape or form and and so they've got to a) hire in the correct way taking into into account the need for digital skills and then you know constantly your appraisals and things like that considering digital knowledge and making sure that you're always you know keeping the team up to date with what they need to know in in terms of digital skills so that's what the leader would have to do you know.

For financial costs I said that there's obviously an initial a higher upfront cost that they that people need to take into consideration that would be an impact on your initial revenues would be the higher setup cost of things and then that you actually end up spending less on in the long term digital technology software hardware all start to you know pay back over the long term and you spend less on them if you do it right.

Then organisational culture I've said this less human interaction so you know Covid-19 has has been a a testament to that people have less it's less human interaction these days you know over a computer and without without coming together so people need to people need to take that into account and they need to you know get their mind around that this phenomenal change that's happened and happens with any DT as well and the need to then replace those lost forms of interaction you know if you've got a team that are working from home and you're not seeing then you need to have more you know a regular social event or something like that where you you still get to interact with people and so that would be organisational culture.

Employees skills and adoption I've said must be prepared to go back to to education really you know if you want employees would need to keep up to date with technology and digital fields and for them to do that it would mean that they would have to prepare to go back to the to the drawing board go back to school or go back to you know Technikon college whatever the case might be or just open up a book

and but they would need to do so to be willing to do some education and not everyone is willing to go back and do that.

Then lastly the customer an adoption so the customer would need to be patient whilst after the business suggests a digital way of doing things you know a a customer that's been used to receiving a piece of paper receipt and that's delivered with a with a monthly item we need to be now ready to not get that piece of paper but get an email statement and know how to click the link to make their payments instead of perhaps doing an EFT and so the customer would need to be patient while adjusting to the new digital transfer transformers business.

RQ2: How can SEs efficiently organise, support and enable a DT strategy?

RSQ 2.1: What are the factors influencing the formulation, adoption and implementation of a DT strategy?

IQ 2.1.1: What is your understanding of DT strategy?

I mean I said just to get educated you know I think people need to get educated they would need a plan and they would need a very solid plan around around the DT so everyone knows where they're slot in and then the the business would if they're trying to organise this especially if there is more enterprise and they may often need to get some form of investment and they'd be they need to be willing to contact the bank or do whatever is necessary to get the investment needed for a DT.

IQ 2.1.2: In your opinion, would you say that DT can assist the company to be proactive to new disrupters entering the market? How and why?

Definitely definitely you know I think i think the digital space just almost prompts you into the next stage you know in the same way that when you go and buy something online you're prompted to go through the shopping cart and you're you know you're almost pushed forward to the next stage the next stage take your card details the next stage etc. and you you know you're it is proactive it pushes the company as well in the same direction and so definitely very you know a proactive approach to things.

IQ 2.1.3: Is there a clear technology strategy in your organisation? If yes, how is it in line with your business strategy?

This is just the one in the same for us because our digital strategy is our is our strategy and so everything is driven by digital class so you know to answer your question yes the key digital technology strategy and it is very much in line with the business from a revenue perspective and a growth perspective so for us they're all aligned.

IQ 2.1.4: Have your company used a DT strategy before? If yes, was it a formal or informal strategy? If no, why not?

So because personally our business has always been digital and it doesn't really apply to us but if i look look at our customers for example you know we deal with we may deal with small to medium-sized enterprises and mostly on the small side and they tend to do things informally so you know your your big multinational corporate is going to have a very formal digital transaction transformation strategy whereas most of the businesses that we deal with are pretty we do do this quite informally and they're always they're always successful and you know dependence and that's dependent on how long they take to do it but they you know to answer the question they're typically informal strategies.

IQ 2.1.5: If a DT strategy is not being used in your organisation, is there any consideration to adopt it in future? If yes, why? If no, why not?

Again no it doesn't apply to us because we're already digital but for our customers I mean we would definitely consider doing a formal strategy with them with a client where their size and revenue you know a call for it.

IQ 2.1.6: Should your company decide on using a formal DT strategy, how would you go about the formulation, adopting and implementing it in your organisation?

Not applicable.

IQ 2.1.7: In your opinion, is there any belief that a formal DT strategy can assist SEs to successful digitally transform? If yes, why? If no, why not?

I think it's it would definitely need to be formalized there needs to be a full strategy you know formulation of the strategy would require input from also all the stakeholders from from director level through to through to the end user or in customer and you would need to just make sure that that is again spaced over time as I say just to stagger these things and make sure that you have milestones to a

transformation value and make sure that you know each person each stakeholder is confident and comfortable at the end of each milestone before you go into the next milestone so just making sure everyone's adopted it fully and before you then sort of legend on and go on to the next the next stage and just making sure that you you know implementation would need to be done carefully methodically and you know with a measured approach so you need to you need to change one thing measure change the next thing measure and do it very methodically like that I think all those different factors would account for a formal DT strategy.

IQ 2.1.8: What are the major factors in your organisation that influence the choice of adopting and implementing a DT strategy for the business?

Again i think it would definitely be the ability to remain competitive in whatever industry they're in and so you know if you if you talk about the alternative to adopting a DT the the alternative is staying where you are and staying staying where you are using you know old systems outdated technology manual skills and labour is you know is not going to achieve the right sort of results for any company in this day and age going forward.

RSQ 2.2: What are the digital opportunities for SEs to adopt and implement a DT strategy?

IQ 2.2.1: How adoptive and responsive is your company to new technology?

Question already answered.

IQ 2.2.2: How beneficial will adopting a DT strategy be to your company?

Yes.

IQ 2.2.3 Was there ever a time that technology you could not meet a customer's need? If yes, why? If no, why not?

That's a tricky question a tricky question was there ever time not that I can think of you know technology is not you know it's definitely not taking you further back from where you were so you know if a company does something using xyz and now they've upgraded xyz to something else they can always fall back on xyz if they wanted to but you know the technology is always going to be tested fully and it's always going to be an upgrade on on what they had so and you know in in our in our industry we can you know you can get technology to do anything we want to you know technology doesn't have a mind of it's own it's got to be trained and taught by by humans so if something didn't work you know it would just be tweaked until it did work.

IQ 2.2.4: What are the most important lessons learned regarding these changes that you have made? Please indicate any specific success or failures with regards to digital tech. implementation?

Specific successes or failures not that I can think of to be honest.

IQ 2.2.5: In your opinion, where is your company now in terms of your organisational strategy?

No I don't think in terms of the organisational strategy we're small at the moment we used to be bigger, but you know we will we will grow in size again over the next year and so we've you know we've definitely got a a staff shortage at the moment but that is driven by current economics so you know that's something that you know is definitely where we want to go it's it's it's a larger team in in terms of organisational structure.

IQ 2.2.6: Where do you want your organisation to be in terms of DT the future?

I think it's probably just it's probably more in terms of you know payment gateways there's a lot of new technology out there in terms of payment systems especially you know touchless payment systems following the whole Covid pandemic so you know probably a lot more of that coming on on board clients wanting to have a completely touchless you know journey and experience when customers come to their restaurant or their wine farm or whatever the case might be and so you know it's it's bringing that to some of our customers that might not be up to up to scratch with that yet they are seeing that this is the new reality and that they need to embrace some of those technologies so I guess that's probably where we're going you know digital digital is huge so you know there's so many growth areas within digital so it's a very difficult question to answer but the immediate one immediate one would be touchless payments and such experiences.

IQ 2.2.7: How will you get to where you want the company to be in the future?

It's probably more so with the increase in our in our own marketing and we're going to be we have a plan to boost our our own internal marketing from December and that will definitely include some of those new you know areas of of focus within the business so i mean how we'll get there is is by increased marketing.

IQ 2.2.8: What were the most influential trends of DT within your industry and what are the expected future trends?

So I think a lot of the trends you know come from people wanting to interact in real time with customers and in turn customers want to interact with businesses in real time voice video chat things like that so you know trends such as you know Instagram, TikTok things like that where people can actually get to speak to the company and see the face of the company you know the the staff and the team aren't hidden in behind you know a website and a logo anymore they're they're out there they're they're dancing they're they're talking to people directly face you know facing the camera so you know that is a trend that that real time or at least you know very in your face sort of connection with the brand is something that transforms the the industry quite a bit you know years ago everything was just you know send an email and then wait you know a few hours for a reply and you never got to see anyone you might just get a name at the bottom of the email and that you know that's all changed you know you can you can speak to you know the one of the top people in in Seattle coffee company you know if you want to by you know sending them a little voice note or something you know on Instagram and and so it's it has changed the way customers have to look at their their own their own touch points with their clients.

APPENDIX C6: INTERVIEW TRANSCRIPT OF I6

Please allow me to introduce myself again. My name is Mark Du Plessis and I am currently a Master's Degree student (Student number 203057791) at Cape Peninsula University of Technology, District Six Campus. The reason for my email to you is to seek permission from your company to conduct research that will assist me towards obtaining my Master's Degree.

The topic of my research is digital transformation Strategic Processes within Small and Medium Enterprises in Cape Town South Africa. The purpose of my study is to understand the business processes in implementing a digital transformation strategy within SMEs. My research method for collecting data will be a qualitative research method, through interviews with the participants. I am also looking at the data from objectivist viewpoint and therefore I am more interested in your journey, the journey of your company and how you follow up or adopt new technology to remain competitive in the market. The interview will last no longer than 45 minutes.

I would like to highlight the point that nothing will be done without the permission of your company and that ethically every step of my research will be conducted with your company's and the University's best interest at heart. No information about your company will also be published in my thesis without your permission including your name if you wish to stay anonymous. A draft of the transcribed interview will be emailed to the interviewee for validation to ensure that the information is correct and that nothing is missed or misinterpreted

Thank you again for joining me to do the interview today. I'm going to go straight into the research questions as there is quite a lot of questions that we need to go through.

A. General Questions

Question 1: Name of the organisation?

- P6.

Question 2: Size of your organisation?

- Two people

Question 3: What is the nature of the business of your enterprise?

- We provide marketing support mostly DM and social media marketing that's our biggest focus here.

Question 4: What industry are you in?

- DM

Question 5: What function/position do you hold in the organisation?

- I normally call myself a business consultant but I'm a director of the company.

Question 6: Geographical location of your enterprise

- Westlake

B. Interview Questions

RQ1: What are the business processes required for SEs to digitally transform their business?

RSQ 1.1: What are the benefits and characteristics of DT?

IQ 1.1.1: What does DT mean to you?

For me it's really how do you say it in my opinion it's automating a lot of things. so you know not needing human intervention and most often it is some form of digital input that's required and conversions and that's basically my understanding of DT .

IQ 1.1.2: Do you believe DT is important to SEs? If yes, why? If no, why not?

Yes, very important you see if not if it's not labour intensive your costs your cost is going to be you know much lower. So wherever human factor comes in it costs you in terms of time energy and money.

IQ 1.1.3: What opportunities have your business pursued in DT?

Well I'm in DM so basically it is all digital but even in how we do things we will use programs to automatically schedule the posts so you don't go in every day and you post it you use some kind of scheduling app to do it for you you know in that regard it's you know otherwise you'd have people basically watching and looking out but you use bots and you use schedulers and that's basically how it works.

IQ 1.1.4: What are the benefits of undergoing a DT?

I think response times so people get some kind of form of response quicker and then also just making sure that from our point of view people will more than likely be advertising websites on more than one platform and so to monitor all of those platforms to make sure somebody's responding you know they can either phone you they can email you or they can respond on the platform itself to watch all those inboxes is it's insane. So you know you kind of redirect them with the auto reply to rather always WhatsApp because everybody always has a phone with them and you know WhatsApp has changed the way a lot of businesses are operating the telephone costs have come down drastically because they do WhatsApp calls they they even prefer to WhatsApp in place of emailing you know it's just it's a quicker response time and when people get a response faster they'll buy faster.

IQ 1.1.5: How does the company use the following digital technologies? A) Mobile computing (e.g. mobile apps, tablets, smartphones) B) (Big) Data/Analytics (e.g. analysing/leveraging data, digitalisation of physical assets) C) Social media/social networks (e.g. for marketing, contact with customers) D) Internet/networks (e.g. website, e-commerce, cloud computing)

So we use CLEAR to basically run the reports on and Google Analytics and Facebook analytics just to make sure you know that what you're putting in you can actually see what the trends are. So if you've posted at a certain time on a certain day was it effective is it better to post it a different day was the content good so sometimes you'll also get an indication what content did it actually meet the target audience or not so yes you use that a lot if you if you don't report you don't watch those stats then you know you're just kind of like randomly throwing things out there and hoping somebody's gonna contact you honestly.

IQ 1.1.6: When did you start using this technology?

Okay so I I kind of always have when I started the business three years ago. so you know I suppose I can maybe take an example of a customer where they had nothing before when they were trying to post it to me. Let me use that example for you or case study so I've got a customer who was a who's in the automotive equipment so they supply panel beaters and workshops and that type of thing with the lifts and that lifting equipment and that type of thing. So when I met them their very basic website and they with really none of their product on there it was just like an intro about us page and a contact page and then they also had a Facebook page but they would literally post probably once or twice a month and it would be have a good Monday type of post do you know what I mean. It wouldn't be anything about the business so we took them which they were trying to monitor themselves and you know the contact form I don't even think they had a contact form they just had telephone numbers you know on there and an email address so took that changed the the website made links to go to directly to the you know the various pages on creative profiles for them and took ownership of the Google pay business account as well so a lot of people don't there's free advertising that gets included when you do that the R600 credit but also it makes it easier to find on google maps. So most people they might be in the area and they might be looking for something it's good to know that they come up and because of the greater Cape Town area and they serve as far a field as Paarl it doesn't really matter they they need to be there and there's not a lot of people like them not many competitors so they you know if they are present they should rank quite high in terms of you know visibility and implemented that everything gets channelled and funnelled through to a WhatsApp accounts so that all the information gets there with it's a business WhatsApp account so it gets auto response when people contact them and they literally I mean they service it like they put service a telephone so you know somebody answers you know when the phone beeps so they don't put that on sign and they're actually watching magnets and things like that so it's changed the way that they do business in a big way and to the extent that I've trained them and they can actually do it on themselves and they're running short of budget. Okay sounds quite intense what you've done and exciting.

IQ 1.1.7: What was it like before this technology was implemented?

So I mean I think my starting point for most companies is that you know you're renting space physical retail space you pay a certain amount every month so it's not going to work if people don't come to you in all your stuff so that's exactly the same on on the Internet you're renting space you're paying for it so you need to get you need to generate some kind of revenue from that. It cannot just be like this holding place stopper and it's what's really important for them was that that online representation should mirror

what you see when you walk into that retail outlet. So if your product isn't there it doesn't really work if you know what I mean.

IQ 1.1.8: Why do your company use this technology? (Do your company take advantage of digital technology e.g. increase customer satisfaction, reduce costs)?

So it was really important for them to have all their products listed on there and they have I mean you can imagine like it's loads of products but the big point is all of those are keywords and all of those are going to help people find them online so you have to I mean it's intensive and it costs money and it costs time but it has to be done otherwise you may as well not have that page at all because nobody's going to find you.

True you need to be visible.

RSQ 1.2: What are the business challenges for SEs to digitally transform?

IQ 1.2.1: What historic/current challenges exist when undergoing a DT?

So people want shortcuts and they want cheap [laughter] you know what I mean and especially in this in the smaller business or medium-sized business space. It's like I know I need to do it but you know and especially now difficult there are stuff people liquidating they're blocking you from leaving the country it's I think only now people are feeling the real effect of what Covid did they could still kind of manage it and the first month or so when lockdown started coming down to level 3 and 2 and now it's like it's not enough business you know the overheads are still high the rent is still there most people have reverted back to the proper rent now and they're not you know. So it's tough like do we spend enough, the Internet is also very loud at the moment so everybody is on it. So you actually almost have to be even more focused so actually putting more energy into it be just to be seen or heard so it's a it's a very tricky situation for a lot of companies but most biggest thing is they want shortcuts. They want to do the bare minimum but get the biggest results .

And that doesn't always work.

Speaker 2: No not now it's too loud in there.

And I think that is the reason behind the study I'm doing.

IQ 1.2.2: Which organisational strategies are used to overcome challenges and to create value with DT?

So I've got a customer now different there they supply coated chocolate coated fruit and nuts. So they already have quite a big footprint in retail outlets and pharmacies and health stores and deli's. So what they want to do is they want to drive more traffic to the e-commerce store because they have a fully functional e-commerce store but they don't get any sales there. So they definitely see the benefit in it, but they don't have a big budget you know what I mean that's that's like it's it's really quite tiny and it's it's a product that is really great but nobody really knows about it so they don't you know they don't even know that the people have a website. So I kind of met them halfway so say you've got to understand you can't spend a thousand Rand a month and expect you're gonna get a thousand cents it's not gonna work that way because you have to have a very focused strategy but you also have to you know be available on many different platforms because your market is not only like that woman and it's not that big it's an expensive product you know so you need to get the right person with the in the right area with the right health consciousness to to drive them there and then try and convince them they must actually buy this. There needs to be a call to action but that's going to take time and energy so you know what I suggested I met them halfway so what I suggested was like too much for them to handle in terms of their budget, but they do understand they can't go at what they initially want. They can't go like a like really tiny because you're gonna get a tiny result and if you get a tiny result then it didn't do what you needed it to do you know so you know what I do is I tell them you know if you in your big retailers and retail outlets you're going to get your money but you don't have to wait for it because you're paying by their rules so you have to supply the product then you've got you invoice them and only once it's sold do you then get your money on a 30 day-day basis. I mean it should take time whereas if it's your store and you're driving you you you know your markets you're driving your traffic you saw you get you need your money immediately upfront and so how important is that to you how important is cash flow to you and that's what i that's what I basically us it's like you know this isn't an immediate return invention you don't have to send product to people and then wait 30, 60 or 90 days for your money so and that's that seems to work people and they can understand with money talks you know.

IQ 1.2.3: What are the major consideration factors in your organisation that influence the choice of new technology adoption for the business? (e.g. cost, resistance from employees/customers/suppliers etc.)

Okay so what product what problem is it going to solve for me. So like what is new about it that's going to make it better how quickly does it take to implement it what kind of infrastructure do you need for it to work effectively does it integrate with the other products that I already have or do I have to change absolutely everything and then obviously the cost factor as well. So but I think more importantly the cost factor is what problem is it really solving for me that something else is not you know you do.

IQ 1.2.4: How agile and flexible is your company to follow up on new technology trends?

I think in our space we are trying it's all about new and question different and because the platforms in which we market are changing their algorithms all the time you have to almost keep your finger on the button all the time. So you can't not be interested in something new that's on the market you have to go through due diligence to understand you know is it going to work is it worthwhile it's you know and then we have a community where we will ask each other and like have you actually even have you tried this product having you know that's really important.

IQ 1.2.5: How do you consider DT to be a source of value creation in terms of both customers and your company itself?

Okay thank you let me okay so you've answered you've answered the question 1.2.5 was how would you consider DT to be a source of creation which I'm happy with.

IQ 1.2.6: How does DT impact organisational performance?

This question was answered above.

IQ 1.2.7: How does DT impact the following? Please discuss each of these: Leadership decision making, financial costs, organisational culture, employees (skills and adoption) and customer (adoption).

Because there's only two you kind of have to always look at you know something that's not labour intensive so it's going to be quick and easy and it's got to be effective so you can't have so for example you can't try and schedule a post but it can't post onto one of the platforms that is needed for a particular client. So now you have to break out of that one and then go on to a different platform to sketch the post that's what you don't want you know what I mean. So that then you kind of like have to look at it overall and say okay there's only two of us so the resources aren't so we can't be stopping starting stopping starting it's basically got to be almost seamless. and then also not like we've got to monitor it to make sure that it is actually that all the posts do go live at the set time as well that there isn't a break in in what's the word I'm looking for communications and stuff. So what I've had is I changed my web domains so hosting company but then the company that I went to was they were they experienced attack and malware and it just messed everything up. So what I learned out of that experience my website still isn't back up and running, is that you know you can't only go on word of mouth things happen things happen so I mean they hadn't had this they hadn't had it in since they since the exception inception four years ago and it was just a massive attack and a lot of a lot of cloud-based systems have experienced malicious what's the word hacking and you know service have been tampered with and it's it's been difficult, but what it was what it did was I made me look a little bit closer at how I was marketing my own business I wasn't marketing my own business and I wasn't updating my stuff regularly so the redirect was a problem you know because I didn't have anything there. even though I've got the profiles I wasn't so it was like okay I'm probably the most important of my clients now so I have to make sure that everything else so that if my website is done they can still find me on the Internet. So I'm not going to be like this misnomer so we're still struggling to get the the under construction page up because if you have under construction page up at least you can have links to the you will be obviously updating but it just it highlights how you handle that and also makes you think about the contingency plans for your customers so for my customers I normally always had a under construction page with the links and tags to the pages because everything was being updated so but I didn't do that for myself [Laughter]

RQ2: How can SEs efficiently organise, support and enable a DT strategy?

RSQ 2.1: What are the factors influencing the formulation, adoption and implementation of a DT strategy?

IQ 2.1.1: What is your understanding of DT strategy?

Okay so I I do good marketing and then I also assist customers with a freelance for Telkom so I do like the switchboards and the the the Internet services so because of that I get a get a little bit involved with what what is happening with the telephones and the cell phones and things like that but right now with

Telkom leaving copper people are being forced to really look at how they run just from an operational point of view how they answer a call and how they access the Internet and a lot of people have been doing it two separate systems and paying like lots of money and now there's a lot of cloud-based telephone systems there's a lot of voice over Internet is a lot effective about what it was 10 years ago in this country. So if you are able to do your voice call over Internet line, you then discover you can do a lot of services over that Internet line so people wouldn't now manually for example sent of a fax for payroll do you know what I mean people will rather log in to pay the UIF over, they log in into U-filing and they they do it all online, they do their banking online they don't go into a bank anymore to make sure everybody gets paid. They do their banking online but these days it goes a step further because now you've got your apps that you can do it on your phone so you don't even need to be in your office when you're doing these things. and that is what it is it's like how do we make it simpler so that people don't have to leave their location to do that what needs to be done. So if you're looking at a a business that's got a manufacturing line that whole manufacturing assembly line can be managed off-site even so you could have your CCTV cameras make sure that the staff is on time and then you know they punch in with some type of time and attendance the app comes up into your phone you know that all your tablet and you know that people are there and you switch everything on not somebody else or it's automated like time and you make sure that everybody is there the quality checks are in control that you know all of that can be managed offsite these days absolutely everything. so it's from a time I love the Take-a-lot example I remember when they started out and they were literally just selling those I think was DVD games at the time which wasn't even it was DVD games that they were selling mostly and you had to go in and collect it from a little office in Montague Gardens and how it grew to what it is now where you'll get a barcode sent to your phone you get there they just simply scan this barcode and your package is like on the table in seconds you know it's not these long long queues of of waiting and people giving like giving a reference number and somebody has typed into a computer and that's what it is it's like taking it eliminating the possible the possibility for error so the person doesn't type type like in one number that's incorrect it's like standing in a checkout at the shop they don't type in the numbers anymore they just scan you know and I mean and that's what it is. So it's more streamlined now a days

IQ 2.1.2: In your opinion, would you say that DT can assist the company to be proactive to new disrupters entering the market? How and why?

I've always believed that I mean I was in sales before I did this this. I was in recruitment before that I did this and recruitment there's a lot of recruiters out there, but I believe that there's enough business for absolutely everybody. There's the right price price point so if you decide you want to come in with a low price point you you have your customers who will buy from you and would be happy with that and you you'll be happy with that. It really is about what is what is the true value of your time or your agency and what difference will that make and there's the right customers for you there's there's a hundred customers almost every single person on this planet. I totally believe that and so it's really for me it's not so much about that market disruption it's about the noise that you have to now counter so that people can see your what you are saying for the on behalf of customers. So I'm more concerned not about from a business point of view I'm just more concerned about how can we ensure that what we're putting out there is being effective for the customer .

IQ 2.1.3: Is there a clear technology strategy in your organisation? If yes, how is it in line with your business strategy?

I thought so I like right now it's back to a lot of research because a lot of things are changing right now. What I thought we would do at the beginning of next year it's kind of like I'm again at like at the beginning rewriting it put it that way because there's so many new things that have come to the fore right now that you kind of almost have to make a decision about which way are you going to go. From an app point of view I'm sitting in a situation where my customers each need their own app does it make sense for them to have their own app and if so what is the price point that would work for them you know because you get a very inexpensive app but then it's hosted it's hosted within somebody else's sort of platform so you kind of like you sitting with the Facebook such as situation which then you kind of like you have to be dedicated to but to build your own app is in excess of R150k to R200k so can people afford that would that make sense is there enough return of invest investment for them so it's a very and I'm taking the app as an example but there's many many of them like it so I try my my technology strategy has always been to try and keep the cost as low as possible so that we can you know you don't have this massive overhead and that that pressure so I look a lot of what how much can I do with the free version of something of anything and and and sort of take it from me. but I would like to be in a situation where everything was running off one account but not quite there and I don't know if we're going to be there maybe maybe you know halfway through next year so how I manage most of my customers is that they they've all got their own free version you know it's one user basically registered so we just log in and

then we schedule it for them across the platforms but it would be nice as an agency to be able to run everything off one so it's one login for us and we just post it on all our customers.

IQ 2.1.4: Have your company used a DT strategy before? If yes, was it a formal or informal strategy? If no, why not?

It was all how much can I do digitally you know without a massive cost attached to it from the outset I mean from the phones from the you know devices that we use it was part of the business plan put it that way, I don't know mine would definitely be it's a small portion within the business plan so it's informal it doesn't have its own strategic plan put it that way so it's informal.

IQ 2.1.5: If a DT strategy is not being used in your organisation, is there any consideration to adopt it in future? If yes, why? If no, why not?

It makes a lot of sense my husband's a business analyst so yes you know so it really does what you're saying is 100% correct and you know the thing that you know I'm part of an incubator a really good one and I've spoken to a lot of small like people and a lot of small people and medium-sized businesses who've been in other incubators and the way that they structure it is that they take a percentage of your earnings every month [Laughter] you know because I'm not part of one like that so it's just like what and you just gave it over like so now you're working for a boss you're not working for yourself you do understand that but what they've gotten from these incubators is really nothing you know what did they give you for that it was like so did you get funding no you basically pay for their knowledge.

But but you know the thing that you know that just highlighted for me is when you try and start your own business there's so many things that you don't know and there's not enough people to tell you you need to do this you need to do that so you you know you register your company you go and you do your registration for your BEE certificates you do your you know your UIF and your registration at the department of labour all of that stuff. No way did they tell us it's really important for you to have you know workman's compensation and just like that and you're like but why don't you say because I am on the road you know so something happens to me on the road nobody tell you that your subsidised there's so many of that type of thing so for you to say do you have a strategic plan it's like wow why didn't anybody tell me to start a strategic planning you know it's like it makes so much sense what you're saying because you don't have a plan you can't go back to amend something and write it down because you know you get so busy with the business that you forgot what you were thinking two years ago until it's too late so yes now I definitely will do that because it's it's really that's really good very good advice even if it's just a three pager to start with it's good it's a good thing to have in your in the structure of the business .

IQ 2.1.6: Should your company decide on using a formal DT strategy, how would you go about the formulation, adopting and implementing it in your organisation?

Note: Questions 2.1.6, 2.1.7 & 2.1.8 answered above.

IQ 2.1.7: In your opinion, is there any belief that a formal DT strategy can assist SEs to successful digitally transform? If yes, why? If no, why not?

Note: Questions 2.1.6, 2.1.7 & 2.1.8 answered above.

IQ 2.1.8: What are the major factors in your organisation that influence the choice of adopting and implementing a DT strategy for the business?

Note: Questions 2.1.6, 2.1.7 & 2.1.8 answered above.

RSQ 2.2: What are the digital opportunities for SEs to adopt and implement a DT strategy?

IQ 2.2.1: How adoptive and responsive is your company to new technology?

Already answered.

IQ 2.2.2: How beneficial will adopting a DT strategy be to your company?

I think very important is that you monitor it so so from a point of view is you especially SMEs you get they give you a price you think you're gonna pay that price 9 out of 10 times you don't pay that price to make it work it is a little bit more be as then it's just as simple as that and you always kind of I think it's important that you go back and you check you know what are you paying now as opposed to what you thought you would be paying and do you still need to pay that high amount or is this something you can do from a cost perspective to keep it within what you thought you would pay. and then just effectiveness is it actually doing what it's supposed to do for your business is it meeting the requirements if it's failing where is it failing why is it failing you really have to do that nuts and bolts due diligence after the fact after the purchase, because just before on our side of things normally we won't buy a lot of hardware

and software which can be replaced you know but if you if your whatever it is requires hardware as well you have got to get I would say three to five quotes comparatively and you have to do that spreadsheet analysis of you know if it's giving you this at this cost what does that one give you at that cost and really to see what is going to work best for your business because and then go back and say did it actually meet and fulfil everything you did and don't be scared to change it you know that's the thing like don't stick with something that is actually giving you headache because it's gonna I can and literally can undo your business.

IQ 2.2.3: Was there ever a time that technology you could not meet a customer's need? If yes, why? If no, why not?

Yes it was a customer so I require my customer to send me images you know like they might send me images and this customer they had it was conceptual they had a job they just wanted this thing to sort of take care of it on its side but they had nothing and they couldn't generate anything and it was just ridiculous and it was like a like a whirlwind of you need to give this to me and they just didn't supply so you were kind of like using a lot of stock images and that doesn't in his and what he was wanting to do that wasn't going to be as effective as if it's a face and a person it's a social platform people buy people you know what I mean you can't just have these pretty images, they have to see a person and so we had to pathways and you know he's paying but they're not close to where they would have wanted to be because it's just it's not effective it's just it's like it's not a that's not what social media marketing is you know social media marketing is not hiding behind something it's a it's a personal thing so and I think why companies do well in it is because they make it relatable so I find that very often the business owners who get involved in it that are the ones that are more successful so they're not shy to be part of it themselves.

IQ 2.2.4: What are the most important lessons learned regarding these changes that you have made? Please indicate any specific success or failures with regards to digital tech. implementation?

Already answered.

IQ 2.2.5: In your opinion, where is your company now in terms of your organisational strategy?

You probably are oh what's the word I'm looking for what's the word when you we kind of you know when you're like re-strategising or not that's not the right word but we are like re-engineering put it that way the clientele that we serve and you know what it is that we prepared to do so kind of like really looking at that and being hard and fast about that and not just taking on everybody under the sun and then just hoping for the best I think it's a more focused approach and it is it's like it's half the effort for the same return without it you know I think you have to be a lot smarter now because for me right now having a lot of small clients it doesn't make sense because it's already so noisy you know it's very very noisy on the Internet and it's it's it's hard to get a message heard so I'd rather partner with companies who will take the time or not to take the time on it or prepare to to pay for the time to make it properly effective .

IQ 2.2.6: Where do you want your organisation to be in terms of DT the future?

So in future definitely once a month sitting in a lab on a laptop spending two days making sure that everything is uploaded ahead of time and then just monitoring on the fly on your phone for the rest of the month like literally that is where I'd like it to be it's not like that things are haphazard customers are supplying haphazard so it really is a question of how how much do we take out of their hands. Like is it is it really better to fly around the country and just go collect it yourself every three months and then you know you've got enough of everything so it's that type of let's just make sure we know what you're doing or do we use a syndicate of partners we've seen a professional photographer ask and we do and we make sure we've got enough whole images so you kind of like thinking about doing it that way instead of like always being on a deadline and that deadline is created by the customer itself I think. It's I've got a few friends who are bookkeepers and they say the exact same thing like you have your whole month asking and emailing and begging and pleading all the whole year even yes everybody will only send it at D-day for tax year-end and they'll anything you know when the payments must be made that's when they'll say they they stop and it's it's that you know we have to kind of how can we alleviate the stress that that then causes you as the supply or the vendor.

IQ 2.2.7: How will you get to where you want the company to be in the future?

Yes maybe it's procrastination or maybe it's it's it's you know you're so busy with other stuff that you forget that you need to do that and ah you know just get off the Internet and it's like but then you didn't get it right do you know what I mean so I'm a little bit of a perfectionist myself and it's like but I could have done that you know I can do that I can do a whole bunch of stuff into this but that's not the point

nobody makes a sandwich the way you make that sandwich you know and you have to show that unfortunately why can't you just think about it just as it's coming out of the kitchen like seriously.

IQ 2.2.8: What were the most influential trends of DT within your industry and what are the expected future trends?

Okay so on our side there's a lot happening but with with WhatsApp, Facebook and Instagram all being under one umbrella there's going to be a lot more overlap there already you can already start seeing the trends there but one thing that we've all everybody's always been struggling with is posting scheduling to Instagram there's always been an issue and posting from your laptop to the Instagram and having that same effect so you can do it but does it have that same effect as as taking it and being a little bit location specific so that location mapping is also really really great. so I think the location marketing is going to come in a lot more and be a lot more effective especially with the record or or the drive to support local so people are going to be asking for and needing these big platforms to make it easier to make the location even if you're not at that physical location yourself I think that's the thing. so one of the limits that Facebook has is that it you've got to be there you know for it to be said to that you know with Instagram even if you're not there you can still say that that's you know that's where it's happening. but from a scheduling point of view we want scheduling apps to be able to do that for us to not only tag the location but make it seem like it was coming from that location yes at the moment you can tag it but you it's much more authentic you know when it's taken at this place it's happening here right now that call for people to come.

APPENDIX C7: INTERVIEW TRANSCRIPT OF I7

Please allow me to introduce myself again. My name is Mark Du Plessis and I am currently a Master's Degree student (Student number 203057791) at Cape Peninsula University of Technology, District Six Campus. The reason for my email to you is to seek permission from your company to conduct research that will assist me towards obtaining my Master's Degree.

The topic of my research is digital transformation Strategic Processes within Small and Medium Enterprises in Cape Town South Africa. The purpose of my study is to understand the business processes in implementing a digital transformation strategy within SMEs. My research method for collecting data will be a qualitative research method, through interviews with the participants. I am also looking at the data from objectivist viewpoint and therefore I am more interested in your journey, the journey of your company and how you follow up or adopt new technology to remain competitive in the market. The interview will last no longer than 45 minutes.

I would like to highlight the point that nothing will be done without the permission of your company and that ethically every step of my research will be conducted with your company's and the University's best interest at heart. No information about your company will also be published in my thesis without your permission including your name if you wish to stay anonymous. A draft of the transcribed interview will be emailed to the interviewee for validation to ensure that the information is correct and that nothing is missed or misinterpreted.

Thank you again for joining me to do the interview today. I'm going to go straight into the research questions as there is quite a lot of questions that we need to go through.

A. General Information

Question 1: Name of the organisation?

- P7

Question 2: Size of the organisation?

- 4 employees.

Question 3: What is the nature of the business of your enterprise?

- We are like a DM agency, but we also do branding and we do like website design and that sort of thing.

Question 4: What industry are you in?

- So we would be in the marketing field.

Question 5: What function/position do you hold in the organisation?

- I'm the business owner.

Question 6: Geographical location of your organisation?

We are now based in Bellville.

B. Interview Questions

RQ1: What are the business processes required for SEs to digitally transform their business?

RSQ 1.1: What are the benefits and characteristics of DT?

IQ 1.1.1 What does DT mean to you?

If I had to look at it now DT especially based on Covid research you know of what we've gone through with Covid you know even with my own company not that I didn't offer these services prior but it's definitely grown in my industry with regards to companies creating their online presence and going online and having their Google business listings and their social media platforms and then you know just having to start opening up online stores instead of you know dealing with clients that can come in and visit you at a showroom now it's just an online store purchase it online we carry it up to you so that is something

that we're seeing a lot of even with our own business we're doing the same thing we hardly deal with uh clients face-to-face anymore everything gets sent via courier.

IQ 1.1.2: Do you believe DT is important to SEs? If yes, why? If no, why not?

Definitely because number one you know companies that are starting out can't always or they don't have the capital available for them to just go out and spend thousands on marketing material to hand out or to do events and things and at the moment we can't even do events. So the easiest way to reach out to you know you would start off with your community which is like around you it's so easy to access your community on Facebook it's so easy to join the different groups and things so you know being online and being digital you know even creating like a WhatsApp group and sending things out to the people that you know like networking from your core space when you start out there's no cost involved with that other than maybe data. So it's a lot easier to reach people I mean I know what our reach and our gain are with our insights on everything that we're doing for all of our clients and it's huge. We wouldn't be able to reach that amount of people face-to-face it's impossible.

IQ 1.1.3: What opportunities have your business pursued in DT?

So from a digital perspective you know, it's also opened our services up to like what we offer in our clients so we're doing a lot of like online start-up packages to assist especially those that have maybe lost their job due to Covid. So we've got a start-up package which includes your logo design, your website and social media platforms and so on where we offer you like a really great rate at creating that for you to help other people create their businesses digitally and you know now we're doing like digital videos DM videos because you can't get out there and you can't explain things to people face-to-face so now let's rather do it digitally and send it to people another thing that we doing a lot of is [pause in thought] what was I gonna say now, I just got a message so I got distracted oh e-catalogues so a lot of people are asking us for catalogues where they can actually put their products on a catalogue which is in a pdf format that they can just they can put it on their website if you go to the website you can download it alternatively they can send it out via WhatsApp.

IQ 1.1.4: What are the benefits of undergoing a DT?

I think it's just an easy and easy way for a demonstration of what you offer and you know again you can share that digitally and sharing it into different groups instead of sharing it one by one by people that you might have on WhatsApp it's just your reach to people and you know the awareness of your company and how many people see it and the interest that it gets gains from seeing that you know and they're like okay well this is interesting let me go find them on Facebook let me go find them on Instagram oh wait let me share this with my five friends that might be interested in this and that's how digitally your online presence starts growing because you've got more people following you.

1.1.5: How does the company use the following digital technologies? A) Mobile computing (e.g. mobile apps, tablets, smartphones) B) (Big) Data/Analytics (e.g. analysing/leveraging data, digitalisation of physical assets) C) Social media/social networks (e.g. for marketing, contact with customers) D) Internet/networks (e.g. website, e-commerce, cloud computing)

So look we all based on computers obviously we've got a WhatsApp line which is the phone that I uh managed. So on there we use WhatsApp as a main source of like communication with our clients but he also promotes on WhatsApp. So on WhatsApp status we update on a daily basis which brings in quite a lot of interest and quite a lot of business and obviously Facebook and Instagram I've got most of our clients linked on there because should it be a case of we are not in the office or it's on a weekend and something is urgent that needs to be fixed or it needs to be posted or you know we're running a weekend campaign or a promotion that we've got to be active then obviously we do use our mobile devices.

Data for data analytics like leveraging data, digitalisation of physical assets, Google Analytics do your company use that - Yes, we do use it.

Social media and social networks for marketing and keeping contact with customers - Well obviously we're based on social media like most of our work is done on social media so we're very active on social media and we've got uh marketing portfolios for various clients I think we're on to about 32 clients now that we manage so it's hectic, but obviously we based all of the work that we do on the insights and the data that we get from and what they provide us with and also with Google and we get the updates from that as well.

Internet and networks like websites, e-commerce and cloud computing - Well, we design websites and build websites for clients so we obviously use that. Cloud we use Google Drive and OneDrive so everything is backed up on there we also have it backed up on hard drives so you know be quite thorough when it comes to saving data and things like that.

IQ 1.1.6: When did you start using this technology?

It's always been part of my company because it was something that I did in my previous job. So I've been in this industry for about 12 years now and so I've always been in marketing and I've always you know grown on that where I worked previously and then so starting with my business I just basically took what I was doing and started offering it to my own clients.

IQ 1.1.7: What was it like before this technology was implemented?

I do you believe I'm considered a millennial it's part of us like we were born into it.

IQ 1.1.8: Why do your company use this technology? (Do your company take advantage of digital technology e.g. increase customer satisfaction, reduce costs)?

Google Drive is actually more from an ease perspective because we obviously work with big files it's not something that we can just put on an email and then share it you know often when we're doing big branding like big signs outside of companies and things. We designed that artwork and it's huge files so I mean we used to make use of We Transfer to actually send files now we just send a link from Google Drive then also ease of access because we are now all working remotely so I've got two different designers plus myself that does design and marketing so we do all the artwork but we need it in one place where we can all access it so from a business perspective it makes sense for us to have that so that's Google Drive and then with Google Analytics it's just an extra sort of validation of what we're doing that we can talk to our clients and say look here this is the reach that you're getting you know these are the amounts of people that are going onto your website these are the amounts of people that are spending time on your website this is how long they're spending etc. etc. and then from there you know it gives them peace of mind they know that the work that we're doing for them is actually working for them.

RSQ 1.2: What are the business challenges for SEs to digitally transform?**IQ 1.2.1: What historic/current challenges exist when undergoing a DT?**

So look this is something that we actually specialize in so most of the companies that come to us are either new companies or companies that have been in the industry for a long time but they need more business, they need to reach people on the online sort of spectra. So with that things change dramatically so there's different things you know for instance we've got a client that joined us recently and he's been in the industry for 20 years and he's an "Oomie" like an old Oom and he is not technologically well he's technologically challenged if I can say it like that so he's like "no idea what is happening here just get the people to phone me I don't want to email anybody" he still writes out his receipts and invoices so in that respect it's very difficult for you to sit down and say look this is what you can achieve but this is what you need to do to achieve it. For them, it's overwhelming because they don't think the way that we think. So it's a challenge to set their mind at ease and say but it's okay to transfer a form to this we will hold your hand right through it and assist you going through it etc. Then you get people that I mean often it's like but I don't want my information on the web, I don't want them to be able to find me, I don't want them to phone me after hours well, unfortunately, we're living in a different world now things work differently I get calls at eleven o'clock at night I get messages of orders at four o'clock in the morning it happens. That is something that you just kind of have to deal with you gotta evolve with the way that the times are evolved. So I mean from a pro's perspective there is no limitation on the pros when it comes to going online. I believe every company needs to be online, I believe that by every company being credible online by having all their ducks in a row online, it shows me that this is a legitimate company and a company that I want to deal with. You know from a person that does a lot online I always research who I'm going to be dealing with and if you don't look like a legitimate company I'm not going to use you because I'm going to think that you are fraudulent. There's a lot of it online and another aspect is that with Google business listing you want to open up a Google business listing but you can't get verified until the postcard comes. Now with Covid it took three months for a business card to come but then the verification code expired so you got to request a new one. So there was a challenge for a couple of months with regards to that and now it takes like 22 days to get a verification code pin thingy and then once it comes then there's these issues that I get you know so there's issues that come with that because then it's like oh your location cannot be verified because for instance somebody and this has just happened to me this week where a client of mine lives in Dunoon and I'm not sure if it's because of the shacks or whatever you call them the informal housing it's not marked off so Google can't pick out that this is actually a legitimate place. So his address is not going to work on it, so I'm like okay we need to use a different address. I go put in a different address but oh no now the postcard is being sent again so now we've got to wait another 22 days to get the new verification code, which is at someone else's house so that once they get it they give it to my client and contact me. So that's the

challenges but it's necessary challenges to go through because it's making sure that the companies that are being offered online are legitimate campaigns.

IQ 1.2.2: Which organisational strategies are used to overcome challenges and to create value with DT?

I don't know you know I mean Google is the core of the online world you cannot bypass that I do think that you know if Google offered people like me who have an agency and say look here you're signing up clients you get a better verification process like you know to contact us directly we'll verify it immediately online because you are now an authorised agent that's opening up companies that would make things better but how do you do that, how do you get that sort of connection with them to be able to do that, I mean look we can become resellers of domains and just like we do that's easy that's simple but I mean the way things are now I mean it's not difficult it's not. I mean if it's something that you're doing on a daily basis then you are fine. I wouldn't say that it's too challenging it's time-consuming you know and just managing all the various accounts but for somebody that wants to open up a business, it's not too difficult I mean it's harder to get registered with CIPC (Companies Intellectual Property Commission) and it's harder to submit your taxes and get your tax sorted than what it is to actually do the online sort of way of doing it.

IQ 1.2.3: What are the major consideration factors in your organisation that influence the choice of new technology adoption for the business? (e.g. cost, resistance from employees/customers/suppliers etc.)

I mean we've dealt with various we've evolved as it comes. I mean we used to use Hootsuite which everybody was using back then now business Facebook has come out with Facebook business, which we now use because it's offered to you it's so easy because you log into it you can post on Instagram and Facebook at the same time your insights are there you're the app that you put on your phone you get all the notifications so you're not missing any notifications you don't have to physically log in to go and look it's prompting all the time so you thinking okay this one commented, this one's doing that, this one's emailing whatever. So everything it's pretty much in its easiest form if you ask me right now it's the easiest that it has been. The only thing is like Facebook with their shares they've made it a really crappy process you know and with all the groups, the different policies in place that's challenging when it comes to policies and actually being allowed to share and what days you can share on how many ads you can share and yeah.

IQ 1.2.4: How agile and flexible is your company to follow up on new technology trends?

Well I mean we don't really look at the latest sort of things it seems to come to us as we're working so these programs are evolving and getting better or maybe I mean we don't really align ourselves with any competitors. So we wouldn't really know but you know someone on our team will come up with a better solution for our production board like now we're using Trailer and that works well for the team. In our invoicing system everybody has access to that and we've got a good invoicing system that the bookkeeper can access as well it's just you know having everybody able to access things, setting your limits and things like that and then obviously with the marketing from the social media side. I don't know if it gets any easier than Facebook business suite and I mean when you and when all your staff are comfortable using a platform you'll stick to that platform and it's that platform's duty to keep up with the trends and to update you.

IQ 1.2.5: How do you consider DT to be a source of value creation in terms of both customers and your company itself?

So you know I think it still all boils down to the fact of your client trust you. If your client trusts you and you know they feel comfortable...Just hang on one second.

That's fine.

[P7 had to check up on her child who was crying]

(P7) - Okay, I need to wrap this up it's still a lot of questions?

(Researcher) - There are still quite a few questions but I can run through a few questions and then we can try and wrap it up.

(P7) - Look so just to get back to that I think at the end of the day you know you can show them the benefits of going online and you can explain that to them and you can be honest with them and that's how I'm very transparent with all my clients. So I'll say then there's the scenario you know you're sitting with this you're struggling for clients to contact you or to find you because if I type you into Google now I'm not finding anything. I can't reach you because your website is obsolete you know what are we going to do let's freshen this up let's rebrand let's create this new vibe for you that people will want to use you because already you've got the upper hand you've been in the industry for 20 years and your word of mouth marketing is working for you but now we need to add to that so you know if my client didn't trust

me or didn't believe in what I do they're not going to go with me they're not going to buy the pitch. There are sales involved in this as well, so I think it all boils down to the honesty with your clients the transparency and being able to show them look this is what you can achieve from it because this is what other clients are achieving or this is what we're achieving.

IQ 1.2.6: How does DT impact organisational performance?

Not answered.

IQ 1.2.7: How does DT impact the following? Please discuss each of these: Leadership decision making, financial costs, organisational culture, employees (skills and adoption) and customer (adoption).

Not answered.

RQ2: How can SEs efficiently organise, support and enable a DT strategy?

RSQ 2.1: What are the factors influencing the formulation, adoption and implementation of a DT strategy?

IQ 2.1.1: What is your understanding of DT strategy?

We've obviously got our own strategy of how we do the DT for all of our clients. That is obviously a secret to our company as to what we offer our clients because it works but you do need a strategy when like any pitch that you're gonna do with any client no matter what you're selling whether it's a cellphone contract or a car that you're gonna sell same scenario we also offering you something so yeah.

IQ 2.1.2: In your opinion, would you say that DT can assist the company to be proactive to new disrupters entering the market? How and why?

Not answered.

IQ 2.1.3: Is there a clear technology strategy in your organisation? If yes, how is it in line with your business strategy?

Not answered.

IQ 2.1.4: Have your company used a DT strategy before? If yes, was it a formal or informal strategy? If no, why not?

So look we obviously do a formal offering to our client we'll do like a proposal we would have a meeting with them whether it's telephonic or via zoom or a face-to-face meeting and I first analyse what they have and then I come in with a proposal and say this is what I feel you need this is what I think will work for you and this is where I think we should begin and we should start.

(P7) - Sorry, can you just give me two seconds?

(Researcher) - Okay I'll just wrap up with you and then we can be done.

(P7) - Sorry about that.

(Researcher) - No that's fine. I just wanted to confirm with you quickly did you say you've got an informal or formal strategy in your company?

(P7) - Formal

(Researcher) - Okay perfect.

Note* Participant's daughter was crying and needed to attend to her which resulted in some of the interview questions being skipped to wrap up the interview.

IQ 2.1.5: If a DT strategy is not being used in your organisation, is there any consideration to adopt it in future? If yes, why? If no, why not?

I think that it's important to have a formal you know structure and proposal to your client because it puts them at ease it looks professional they trust you with that you know. There's something to sort of bounce back on if they say oh this is what you offered me and you didn't or oh but we thought we were getting this and I can say but in the strategy or in the proposal this is what we said you were gonna get. So there we go so it's also just from a safety perspective.

IQ 2.1.6: Should your company decide on using a formal DT strategy, how would you go about the formulation, adopting and implementing it in your organisation?

Not answered.

IQ 2.1.7: In your opinion, is there any belief that a formal DT strategy can assist SEs to successful digitally transform? If yes, why? If no, why not?

Look I just feel that any proposal that you're gonna give to a client needs to be formal. I don't believe in informal things when it comes to business at all.

IQ 2.1.8: What are the major factors in your organisation that influence the choice of adopting and implementing a DT strategy for the business?

Not answered.

RSQ 2.2: What are the digital opportunities for SEs to adopt and implement a DT strategy?

IQ 2.2.1: How adoptive and responsive is your company to new technology?

Not answered.

IQ 2.2.2: How beneficial will adopting a DT strategy be to your company?

Not answered.

IQ 2.2.3: Was there ever a time that technology you could not meet a customer's need? If yes, why? If no, why not?

Not answered.

IQ 2.2.4: What are the most important lessons learned regarding these changes that you have made? Please indicate any specific success or failures with regards to digital tech. implementation?

Not answered.

IQ 2.2.5: In your opinion, where is your company now in terms of your organisational strategy?

Not answered.

IQ 2.2.6: Where do you want your organisation to be in terms of DT the future?

Not answered.

IQ 2.2.7: How will you get to where you want the company to be in the future?

Not answered.

IQ 2.2.8: What were the most influential trends of DT within your industry and what are the expected future trends?

Not answered.

APPENDIX C8: INTERVIEW TRANSCRIPT OF I8

Please allow me to introduce myself again. My name is Mark Du Plessis and I am currently a Master's Degree student (Student number 203057791) at Cape Peninsula University of Technology, District Six Campus. The reason for my email to you is to seek permission from your company to conduct research that will assist me towards obtaining my Master's Degree.

The topic of my research is digital transformation Strategic Processes within Small and Medium Enterprises in Cape Town South Africa. The purpose of my study is to understand the business processes in implementing a digital transformation strategy within SMEs. My research method for collecting data will be a qualitative research method, through interviews with the participants. I am also looking at the data from objectivist viewpoint and therefore I am more interested in your journey, the journey of your company and how you follow up or adopt new technology to remain competitive in the market. The interview will last no longer than 45 minutes.

I would like to highlight the point that nothing will be done without the permission of your company and that ethically every step of my research will be conducted with your company's and the University's best interest at heart. No information about your company will also be published in my thesis without your permission including your name if you wish to stay anonymous. A draft of the transcribed interview will be emailed to the interviewee for validation to ensure that the information is correct and that nothing is missed or misinterpreted

Thank you again for joining me to do the interview today. I'm going to go straight into the research questions as there is quite a lot of questions that we need to go through.

A. General Information

Question 1: What is the name of your enterprise?

- P8

Question 2: Size of your organisation?

- Well at the moment it's just me so what I do is when it comes to and if I should need an extra pair of hands or skill and I rather sub-contract someone and pay for the hours just makes it easier for me doing admin at this stage so yeah.

Question 3: What is the nature of your enterprise?

- So it's a DM agency focusing on marketing online so totally online so it's pay-per-click ads, SEO, web design and email marketing content creation. I think that's the bulk of it yeah.

Question 4: What industry are you in?

- So it makes sense to actually have a niche right so for example the niche that I found works the best for me is in the beauty and cosmetic industry. So it's everybody from doing nails, facials, permanent makeup even tattoo artists so that is where my bulk of my client sits but because of lockdown I obviously had to change it a bit because it's difficult to get people to leave their homes to go to these clients now because people was afraid of getting infected and all of those so what I'm doing I had to adjust the strategy a little bit with Covid-19 in the air if I can say it that way and so I'm doing any business that has a presence online and they want to attract more customers that's it. So I am doing people that has online courses or I even have people that sells Internet bundles or packages you know like fibre and LTE and then I'm speaking to catering companies where we advertise online for them and basically they make the food and they deliver so at the moment just to keep the business afloat and keep revenue coming I'm doing whatever you know.

Question 5: What function/position do you hold in the organisation?

- So I'm the founder and I'm a DM specialist so yeah that's it.

Question 6: Geographical location of your organisation?

- Cape Town, South Africa

B. Interview Questions

RQ1: What are the business processes required for SEs to digitally transform their business?

RSQ 1.1: What are the benefits and characteristics of DT?

IQ 1.1.1: What does DT mean to you?

Okay so DT is where with e-commerce and the Internet growing we need to tap into what people refer to as the online market and the type of marketing that is inbound marketing where instead of people walking into your premises we go and find them on the Internet and we get them to start or we attract them to products and services that they are interested in. So to me it means that we are transforming from the traditional ways of actually doing marketing attracting customers and then obviously selling to them you know and the transformation is happening on the online platforms and for example e-commerce look at Amazon the stock prices went through the roof because of the online transformation or DT and you know so that's my take on it so in short that's basically we are changing the way that we find our customers and selling our products to them a way that we attract and interact with them.

IQ 1.1.2: Do you believe DT is important to SEs? If yes, why? If no, why not?

Yes, I believe that because it changes the livelihood it has and it gives. Okay if you look at traditionally or if a small business has to market their products it's expensive print media for example it's expensive if you want a section in a paper or put something on a billboard or put something on TV or radio you're going to pay a lot of money right so it's expensive for small businesses you know for SMEs and so what DM does it levels the playing field it basically gives a small company like mine the same playing field that Checkers or Pick n Pay has to advertise on if you know what I'm trying to say you know and that is the biggest benefit. The second benefit gives us is our return on investment with advertising online is much greater than advertising traditionally or interacting with our target market in a traditional way an example is my client spends on average on a Facebook campaign for seven days one thousand rand to advertise on Facebook right their products and services cost anything from five hundred rand to a couple of thousands of rand's and sometimes just spending that one thousand rand on Facebook makes them twenty, thirty thousand rand. So that's the two things number one it levels the playing field for small businesses where they could now compete with the bigger guys on the online platforms and number two a better much return on investment.

IQ 1.1.3: What opportunities have your business pursued in DT?

So being a digital agency ourselves I mean firstly you know reality is it we're never going to go back to normal, if we say normal was before Covid right we're never going to go back to normal it's not going to happen and even if we didn't go back to normal gradually e-commerce and the Internet is growing and so if you don't get your business to somehow interact with its targeted audience online it's slowly dying you're slowly gonna die out you know. So for me I was in IT and I still do a little bit of IT work but I'm transforming totally over to DM because I see where the market is going with business I mean and the nice thing about transforming digitally is your overhead cost for example is also down so you know where with the traditional business you had to pay the employees and the workspace and the product and whatever the case may be, for me for example one client pays all my expenses for a month and it makes more sense to go there but I think what is I've went I did a marketing course it was a short course but it gave me the necessary skills to start out with and it's not going to end but it gave me the skills to start the so being a digital market agency obviously you have to totally be online and you know so for me it started by creating a DM agency and the same principles and steps that we follow for campaigns for our clients is what works for us so we advertise online, we land our clients online we interact with them on Zoom or Skype or teams and that's the way of the future you know so yeah I hope that helps.

IQ 1.1.4: What are the benefits of undergoing a DT?

So we started with the two benefits that we said you know number one is giving you that playing field at levels the playing field with you advertising with bigger businesses that have bigger budgets and then your return on investment the second one we spoke about and the third one is that you reach your customers any time night you know it's kind of like when we put out the ad someone sees it on Facebook and reaching them without you know what the inbound marketing thing is very important so you're reached what I'm trying to say is...okay let's see let's rephrase the third benefit is your reach online is so much bigger than what you can do traditionally for example on Facebook for a one thousand can reach twenty two to twenty three thousand people in a week that will see my ad right so that as well. So obviously the cost effectiveness falls in with the return on investment but of course it's very cost effective and then I'd say another benefit is retargeting so I'm not sure if you are familiar with retargeting but if for example I've gone the traditional way and I've put the ad in the newspaper let's use the newspaper if I

want to change that ad or see who seen the ad so that I can contact them or reach out to them again in a later stage because they maybe not interested in buying now then I put in another ad. Now DM changes that around and there's a thing that's called retargeting so what happens is I run a campaign that's Google, Facebook, LinkedIn doesn't matter we get leads in right so the leads is the list of people that that basically interested in buying a product they're not saying they want to buy maybe three or four buys right away depending on the amount there's a percent it says like a three to 10 percent. DM allows me to reach them again so with DM we get contact information like the email address and telephone number now we can retarget to them costing us nothing in the future to tell them hey we know you weren't ready to buy from us a month ago but now you might be reading so we create an offer again if they don't buy I mean you get people that buy next time so that is there is another powerful way which is called retargeting you can basically go back to the people that shown interest months ago in your product and get them to buy on later stage so I'd say that's the biggest benefits.

IQ 1.1.5: How does the company use the following digital technologies? A) Mobile computing (e.g. mobile apps, tablets, smartphones) B) (Big) Data/Analytics (e.g. analysing/leveraging data, digitalisation of physical assets) C) Social media/social networks (e.g. for marketing, contact with customers) D) Internet/networks (e.g. website, e-commerce, cloud computing)

So with the CRM its basically the software that we use that manages our campaigns it manages our successful ease it tracks what people do what actions they do if they open an email if they saw our offer and that gives us the info on when we need to retarget them or when we need to send out a certain email to them so yeah and the CRM's I don't know if you if you got them all but one called Get Response Quick there's one called Active Campaign and there's one called Hubspot and we use these uh CRM systems together on our phones, mobile phones and laptops and yeah that's how we engage and then obviously also we do a lot of WordPress WordPress websites and we design for mobile and desktop yeah that's basically what we use.

IQ 1.1.6: When did you start using this technology?

I started using invite two years ago when I started studying for marketing so yeah two years ago you could say the beginning of say January 2019. It's always been part of my company but I'm sticking around with one now which is called get responsive.

IQ 1.1.7: What was it like before this technology was implemented?

I'm using get responsive look at it possible to track what's happening if you don't have a CRM system so for example you'd send out your ads and stuff and you'd have to manually email every lead and then email every prospect with the offer and then email them to retarget them again so your CRM system does it nicely for you so the platform allows you to you know many track what's happening and then interact appropriately with a leader or prospect so before that if you don't have a CRM it's impossible to keep track and get your business going okay say a DM agency cannot operate without CRM and automated email response there is just no way.

IQ 1.1.8: Why do your company use this technology? (Do your company take advantage of digital technology e.g. increase customer satisfaction, reduce costs)?

Yeah it is definitely to reduce cost but it's not just reducing cost it's about automation so it's about working smart it's about me not sitting there waiting for someone to click on my ad it becomes a lead I now need to send them an email so that I can make him buy from and then if he doesn't I need to keep following up. The software does it for me in sequence like say for example automated sequence I say okay this is a Facebook ad campaign if someone clicks on my Facebook ad monitors what they do next if they leave their contact details send them an offer, if they clicked on my ad but didn't leave the contact details send them the ad again or if they clicked on the ad and left their contact details for example and I send them an offer and they've looked at the offer but they didn't buy then send them another follow-up email you see what trying to say so it's all about the automation so it's cost saving and automation.

RSQ 1.2: What are the business challenges for SEs to digitally transform?

IQ 1.2.1: What historic/current challenges exist when undergoing a DT?

Well the challenge is in in an economic state that we're in and the state that our country is in that it takes a lot of convincing to get people to buy the product and service. So the biggest thing that you need to do is sell the benefits you know like you ask me what is the biggest benefits you do sell the benefits in such a way that they are interested in in using your services but I think also before you even get to the point where they buy from you need to do a lot of education especially in Cape Town Africa Cape Town like if I have to compare Cape Town to Joburg and Pretoria for example Gauteng and Western Cape most of my clients I'd say 90 percent of my clients is in Joburg they are very open to the technology

using Zoom using the software getting the businesses online where I find in Cape Town people are much more we've got this culture where we still want to see people at the desk when we work we still want people face-to-face and so yeah so the challenge would I say for South Africa is to get people to spend money in an economy that is not doing well and then on top of that you've got locked down and Covid-19 and then secondly for Cape Town specifically locally here by us it is people's culture that they want to see each other to trust each other so that's the challenges.

IQ 1.2.2: Which organisational strategies are used to overcome challenges and to create value with DT?

You know what you with any business or anything that you wanna achieve and overcome something is you gotta show people results so to adapt to the current economic place where we're at and to get people to do the digital or get into digital transmission our first service that we offer to them is to generate leads because I mean if you don't have new prospects and you can't grow your business so that's our first thing that we do and that's the quickest way that I can build trust and get people to overcome the fear of going online for example i go to someone and tell them hey I can build a great website to you and it's going to cost you 10 thousand rand and they're going to look at me and think I'm crazy because they don't see the value in it. So what I do to build that trust is I first go to them and say okay what I can do is I can increase your sales in a week and after a week I can start increasing your sales directly getting you more people to buy from you then you start building up with your value added services like you say okay your website is there okay now we can add value by because they now understand how important it is for people to see them online now they will see it's valuable to actually get my website in line with what I'm selling to have the right content on there you know. So that is just an example and so we have many value-added services but our first step to overcome and build trust is to generate leads because it shows them a result and the result is it directly increases sales in about a week or two.

IQ 1.2.3: What are the major consideration factors in your organisation that influence the choice of new technology adoption for the business? (e.g. cost, resistance from employees/customers/suppliers etc.)

Yeah I understand okay so fortunately what happens nowadays is and this is the norm with any software any app anything is this like trial periods and you know it's going to cost you money so basically what we do is you're constantly looking at obviously better systems to automate but you have to like bench mark it against something so you've got something that works and you say okay I'm buying ten dollars for this, the new system is going to cost me forty dollars a month and now I need to see is it valuable for me what is the extra features, is that extra features enough for me to use the system and pay the extra money or am I actually okay right now where I am and what has been offered for me is okay you know. So you gotta constantly go out check what's new compare the features and benefits, run the test trials some people do 14 days and some people even do a month worth of testing it you know. Test it play with it see what value you get out of it, does it make your life easier does it help you work smarter and if it doesn't you know then it doesn't make sense to actually move or use their platforms.

IQ 1.2.4: How agile and flexible is your company to follow up on new technology trends?

All the time there's a time in the morning before I start where there's two things that I do the first thing is to get motivation I mean in a time like this you need motivation it's just to keep the head straight keep the mind straight keep going on the path going and then the second thing is I'm subscribed to blogs and companies that that that brings out new technology and you know scroll through it check it out say okay there's something new make some time in the week to check it out that's our work.

IQ 1.2.5: How do you consider DT to be a source of value creation in terms of both customers and your company itself?

You know what it's a two-way street it's a two-way street in terms of the more customers I help especially growing their businesses and when we say growing their businesses we're talking about sales right because at the end of the day it's it doesn't matter what people say it's about the money you know my mission or the company's mission is to help people grow their businesses online and so why I said it was through two-way street is as those businesses grow my business grows or social grows so that's how we operate you know. We start out small we advise, we both trust we then expand our service offerings to that customer so it helps to need to grow the business it helps me to afford better technology just talked about to make my business run smoother and make smarter decisions and it helps the customer grow as an effect of rebuilding trust we're getting their brand out there and we're getting them to make their lives better and directly actually making the lives of their employees better. So if we have to go to a level of how it really works or is beneficial for both of us it's about making and enriching people and making their lives better and that's it. So that's our mission is to as much as possible help small businesses grow their businesses and while they grow we will go.

IQ 1.2.6: How does DT impact organisational performance?

So look without DT my company can't exist you know what I mean so we rely a hundred percent on DT we are after all a DM agency and everything we do is online it's digital it's either on the phone, a laptop, an email, a app, a website or something you know so for me it's absolutely necessary because without it the company can't survive it can't exist?

IQ 1.2.7: How does DT impact the following? Please discuss each of these: Leadership decision making, financial costs, organisational culture, employees (skills and adoption) and customer (adoption).

I think the biggest thing is the way that it is impacting and changing our lives is and the reason why I got into this is it allows location freedom right when I say that is you can work from home you can schedule your day in such a way that you can go and this is that was the drive you can go and see the kids play at school at two o'clock in the afternoon you know unfortunately Covid happened and we've got all these lockdowns and stuff but the other thing is we're all here at home and we're actually building up our relationship with our kids because we never got this chance to actually see them and wake up with them every morning because we you know it's just crazy taking them to school get them at aftercare come back so what I'm trying to say is it's changing the lives or it's actually basically the location freedom and it comes from my customers as well because now they can advertise online I handle it for them all they get is results they they're not bothered by having to look for someone to come to their business you know so they have the time now to do other things and focus on their business the real things that matter that's what I would say.

RQ2: How can SEs efficiently organise, support and enable a DT strategy?**RSQ 2.1: What are the factors influencing the formulation, adoption and implementation of a DT strategy?****IQ 2.1.1: What is your understanding of DT strategy?**

I think it's where you strategically plan where you're going to start with your strategy so for example if I say start at ease are you online or not if you are online it's on what you have and if you're not online where you're going to start and it's strategically building without with strategic goals if I could say goals or what you call this what you call these things but let's call it goals and to reach those a certain amount of time so for example we'll say our digital strategy is going to our digital strategic plan is going to take us three years to implement the first thing we're going to do is we're going to create a website and get people to just get to know our brand and put under awareness the next step is to advertise online and so we go on and on and on but it's basically to align your business with living in this that we call the online market so and there's a clear guide of how are we going to get there when we want to get there and it should also have the thing here of should something go wrong what is our plan what is what we're going to do when we get a little bit of the hiccups and the stuff that we need to do.

IQ 2.1.2: In your opinion, would you say that DT can assist the company to be proactive to new disrupters entering the market? How and why?

Definitely I mean if you look at DM and again I'm always going to refer to the online market and the online market gives you so much more for example a business like mine I'm operating in South Africa but it gives me the flexibility and I can put in a strategy for example I have strategy to reach people in the whole of South Africa and then I started the DT strategy where my business can start reaching people in other countries and it wasn't for them to help them with their DT because at the end of the day if you ask me on if you ask any business on for example if I ask you what is McDonald's, what type of businesses is McDonald's how do they make their money and a lot of people is going to tell me it's a food place they're selling food but it's not. McDonald's is people that invest in prime property if you check where every McDonald's is it's in a prime location where everybody can see them when we drive past and that's what's making their money so if I come back people would say my digital agency which helps businesses transform digitally if we call it that we generate leads we build websites we actually don't do that what we do is we make the process for people that wants to go on this digital journey we make it easy for them that's what we do you know. So this answers the question.

IQ 2.1.3: Is there a clear technology strategy in your organisation? If yes, how is it in line with your business strategy?

So obviously my business has deliverables so I'm looking at last year, last year was the first year and the business started and the plan was to actually you know go and land a few customers that was the main thing. Get people to know about it, get people aware of what the brand is doing and then this year

for example so in last year my CRM system that I'm using was not the Rolls Royce of CRM systems if I can say it that way. It was a basic CRM system that I could basically use and that's affordable for me to reach my goals of last year, which was to get the business name out, get people aware of it and get some clients to make use of the services. Now if I take my strategy for 2021 it's now to scale up so now my CRM system for example my technology that's build around my business needs to align with what I want to achieve. So in order to keep my current business my CRM system is good enough but I need to now go a level up basically to say okay I now need a better system to manage my clients and get me new business in at the same time and because of the online drive of things I'd like to start selling online courses on helping businesses and teach them about digital so now I need to get new technology in to obviously host the services that I want to sell and to market it so yes we have the organisation has a clear strategy and goal of where to go and which systems and platforms and technology we need at what stage of our business.

IQ 2.1.4: Have your company used a DT strategy before? If yes, was it a formal or informal strategy? If no, why not?

I think in the beginning like I said last year it was a bit informal I just did a deeper marketing course of six months it was like you know just to get the skills so it was getting started getting to know the business getting to know how it works and basically testing the waters in a pandemic and I mean it works. So last year a bit informal just getting stuff and systems and stuff in place that just makes it work it makes it work it makes life easier now this year the strategy is very formal I've got a plan on where I want to be by November and I've already sat down in the first two weeks of this year where over the last two weeks or so we have got a clear guide of example by the end of March I need to be here and this is how I'm going to get there this is the amount of money I need to invest into the business to grow it and this is the tools and the strategy on how to grow it.

IQ 2.1.5: If a DT strategy is not being used in your organisation, is there any consideration to adopt it in future? If yes, why? If no, why not?

Yes, definitely.

IQ 2.1.6: Should your company decide on using a formal DT strategy, how would you go about the formulation, adopting and implementing it in your organisation?

I think I'm just going to go back to what I've said previously is you obviously need to know where you're going to right so as any business you need to identify what is your immediate goals right because you have immediate goals and immediate goals is what would I want to achieve in the next three months and most of my focus in those things goes into the immediate goals every day of what I want that's a 100 percent of my focus is going there and that's priority then you've got a longer term straight or say a medium term strategy so then I would say okay by the end of the year I would like to be here or by November I always say November because December just doesn't count to me so yeah you know they didn't they know I have my intermediate strategy and then I'll have a strategy for the next year or two you know where we need to be and it's always like that and so you need to first understand where you want to go to then you up into long term, medium term and immediate and then you start breaking up that into goals and obviously you they need to plan and say in order for me to reach that then my intermediate goals I need to do this or my long-term goals I need to do that and you then break it down into a plan where you basically can make it achievable and so that's the same thing with a DM strategy for any business big or small you need to know you where you going to. You can't you know if you're someone when we get our clients in of the first we've got two Zoom calls basically the first one is the discovery I want to find out about your business and how and where you want to go to and then depending on what happens there I will make a certain article where we actually discuss your strategy but for example if I found in the first call that you know you've got no direction and you're just here to make a quick buck then you're not a good fit for my business because I still believe that we can choose who we want to work with and if that doesn't align with what my business needs to achieve then you know what it doesn't make sense for me to follow that to follow something like that so at the end of the day what I'm trying to say is the DM strategy you need to plan it you need to have clear goal sets you need to have the marketing and the funds and the hours and whatever to get there, but you break it down into smaller pieces reach the smaller pieces and ultimately you're going to reach your goal.

IQ 2.1.7: In your opinion, is there any belief that a formal DT strategy can assist SEs to successful digitally transform? If yes, why? If no, why not?

I think yes I think but I think where we get wrong is we paint this picture to when I say we it's the media it's whoever advertises companies like Google, Facebook or whatever it is just come to your platforms and your business will be better but what people understand is if you don't create the right content and content can be anything you want your website is it can be what you ad it can be an ad it can be anything

if we don't create the right thing and get that content in front of the right people which is your right target audience then you're going to fail from the start there's no way you can succeed if you don't have a target market and the right offer to get your product out into that target market. So I think we're getting it totally is before we can actually tell people to get on board with a DM strategy especially in the culture where our small businesses operate in we need to educate them and tell them what is the benefits of getting it. Then the other thing is digital and like even digital you know digital businesses and stuff is new so the kind of support that we have in our country for example is not great and if I say that is if you look at grants or finance institutions for digital agencies in South Africa there's not a lot and so it's twofold it's about educating people and then giving them the opportunity to do it by trying to help with funding and obviously also trying to help with implementing the strategies or their DT plan so yes definitely it can work but we are a little bit behind if we look at other countries and obviously for various reasons but yes definitely if we if we educate our small businesses, business owners and employees and we give them the support system to help them to get there then definitely it can work.

IQ 2.1.8: What are the major factors in your organisation that influence the choice of adopting and implementing a DT strategy for the business?

I think at the end you know it still goes back to what is it going to do for me you know. What is this DT plan going to do to my business and in order for anyone to buy into anything you need to show them the benefits and we're talking about the benefits and stuff like that so I'm saying that you need to tell people and that's where I'm saying the education part and you need to educate them and tell them why should I do this and I don't think we're getting that right?

RSQ 2.2: What are the digital opportunities for SEs to adopt and implement a DT strategy?

IQ 2.2.1: How adoptive and responsive is your company to new technology?

[This question was answered previously – refer to question 1.2.4]

IQ 2.2.2: How beneficial will adopting a DT strategy be to your company?

No, definitely I mean it is. I'd say that the way that I see it if you look at South Africa if you don't have a DT strategy for your organisation for your small business in the next year then you might not be there the next year.

IQ 2.2.3: Was there ever a time that technology you could not meet a customer's need? If yes, why? If no, why not?

So yes okay there's one or two customers that I had to, I mean I just couldn't start doing anything for them and it's because of the way that their business is designed so the other thing that people believe is that you like I said you go online go on Facebook you do a post and everybody's going to buy from you it's not how it works. You and I know that so for example as many years ago I was just doing like websites and nothing digital no agency just you know branding, logo design and stuff like that and I did a website in something for people that has an Engineering factory and they do the brackets for guys that does fencing. So all these clear fencing that you see going up everywhere they do the brackets, but now they came to me during lockdown and they said look here can you basically help us sell our product with everything that's going on and I had to say no because the technology could not support what they would like because the industry is backed on what they could do at that stage for example it was locked down level five or four and they could not physically operate you know so those are I think is the extreme ones where the business or the industry is set up in such away where we still need to talk to each other and we need to kind of like be able to you know the old type of traditional marketing that business for that industry for example is all about who you know and who you work for you know so there are still challenges. DM and DT doesn't come and just solve everything for us and it would be actually nice later on you know now when I'm starting out this business I know the first couple years is tough so I need to focus on this, but later on maybe we can you know get people like that in and start thinking and looking at how do we help businesses like that.

IQ 2.2.4: What are the most important lessons learned regarding these changes that you have made? Please indicate any specific success or failures with regards to digital tech. implementation?

So what I took away from that is that you know what everything, everybody's it's with the world that we live in and everybody's in there to make a buck out of someone quick. I could have easily said no I'll do it for you for a month I know it's gonna fail and I'll make my money so what I've learned out of that is I still need to be ethical about things and if I can genuinely not help a business I will in my research that I do before giving them or giving them a strategy I will be open and do honest business and tell them listen I cannot help. The best thing about that is and what a lot of people don't think about is instead of

taking the money because it would have been great for me at that stage, it builds up a reputation about my business and people are aware that I'm not here to play around. I play the game I play it properly and that to me is one of the best values of the business is do ethical business talk to people and if you genuinely can't help tell them you know just open you know.

IQ 2.2.5: In your opinion, where is your company now in terms of your organisational strategy?

So I'd say the implementation phase and I've broken it down to three phases and the first phase was to get business starting during lockdown last year through 2020. We're done there we've survived it we've come through it we've learned a lot of lessons and we're now in phase two and phase two was basically where I now scale the business because I'm working with it for about a year or say a year and a half already and now I know the game you know. I have the confidence to now go to a customer and tell them I'm not a newbie anymore I know what works and what doesn't. So now I need to scale it up so the next stage is my own business and our DT strategy is to cement our current customers with value added services then land a few new more retainer clients to get the cash flow going and that will allow to scale a little bit more and I was talking about going online where I now go and I have online courses like you know the short courses that we see and go tell people how they could make their business better by online courses. So if they can't afford my services they could at least get them somewhere you know and so the phase two and I think phase two was probably going to last for this year and the next year hopefully if my plan works out and then on top of that I want to scale it to outside South Africa I want to scale to sell to all over the world after that but I need to perfect it first not perfect it I need to cement it and so that is where we go so yeah that's the thing.

IQ 2.2.6: Where do you want your organisation to be in terms of DT the future?

Yeah do you know it's again it's a two-way street again for my business and any other small business so you know a lot of people especially now they have a little bit more time on their hands because of lockdown and stuff going on and online place booming and so it makes sense to you know because if you look at it my services it's not cheap but it's also not that expensive you know it's somewhere in the middle but because of the economic thing that's going on a lot of people can't afford five grand a month for advertise so you go and you create an online course for example create something that says how to use Facebook ads to boost your business and so they can at least start doing something for themselves and at the end of the day the one they're going to come back to is because it's a lot of work I mean to run a business and do the marketing is almost like impossible but a lot of people because of finances think that they can do it and so that's what I wanted to do and it's just to give my business a broader reach and make people are aware of what I do and then from there we scale it up and we say okay let's go to the to the next region or go to this side of the world and let's see if we can sell our product there.

IQ 2.2.7: How will you get to where you want the company to be in the future?

I have already got it set up where I'm going to be doing the courses it's on videos it's a set of videos that will teach you the necessary skills to advertise and get awareness out of your business online so I'm gonna do it myself at this stage because it's cost effective and the reason why it now is because I have studied and I now have been I've got experience in it so I know what I'm talking about and it also using myself it builds on I am the face of the brand it trust my audience whereas you could have gone the other way and said okay I'm gonna hire some personality or some you know someone which will attract a lot of people but what the value you're going to get out of that. So always it's about building the trust and so I'm going to do it myself I've already got the plan laid out I've got the platforms that we're going to host it on so third party is probably who I'm going to pay to have the course running on it you know the platform that's going to host the course so that would be third party and that's all lined up already. I'm ready to go I've almost secured all the funds as well because that's the other thing we need to think about who is funding in our businesses and who believes in what and is willing to take a chance with us and so that's the final stage my meeting last night and I just actually got the aids up this morning that I received some funding to do that and so yeah that's how I'm gonna do it.

IQ 2.2.8: What were the most influential trends of DT within your industry and what are the expected future trends?

I think at the end of the day it has to every business has to adapt something, they have to adopt doing something online. The day of, our normal days of selling is gone and people needs to start to believe that. I'm not saying there's no more place for doing traditional selling and marketing because there are, but it's all about how you can afford it. So if we bring it down to small businesses you got to adopt a digital strategy the challenges are the understanding on how to implement it and seeing the value of what you can bring to your business. So what I foresee in the next so if I track back just thinking now if you look at when we went to the first wave of the corona virus right then people got a shock they got a shock and said oh my business is not online I have to close my doors and I'm not sure if I'm going to

open them again, but that's the way it is that's survival mode kind of thing right. So a lot business the clever people or the clever owners and I'm not saying I'm not trying to say anything else but they started thinking about what I'm going to do to change this in this environment and now we got a shock and people has realized that oh okay we can work from home and we can do this and we can do this. Now with the second wave if you do and that time you still could think about it but value now you need to you need to start implementing the strategy and so going forward I see a lot of people hopping on to the bandwagon you know onto getting it into their businesses and I think the responsibility of our agencies is to is to basically convince businesses to the benefits of what we could offer them and how we could in any situation and basically failure proof their business.

APPENDIX C9: INTERVIEW TRANSCRIPT OF I9

Please allow me to introduce myself again. My name is Mark Du Plessis and I am currently a Master's Degree student (Student number 203057791) at Cape Peninsula University of Technology, District Six Campus. The reason for my email to you is to seek permission from your company to conduct research that will assist me towards obtaining my Master's Degree.

The topic of my research is digital transformation Strategic Processes within Small and Medium Enterprises in Cape Town South Africa. The purpose of my study is to understand the business processes in implementing a digital transformation strategy within SMEs. My research method for collecting data will be a qualitative research method, through interviews with the participants. I am also looking at the data from objectivist viewpoint and therefore I am more interested in your journey, the journey of your company and how you follow up or adopt new technology to remain competitive in the market. The interview will last no longer than 45 minutes.

I would like to highlight the point that nothing will be done without the permission of your company and that ethically every step of my research will be conducted with your company's and the University's best interest at heart. No information about your company will also be published in my thesis without your permission including your name if you wish to stay anonymous. A draft of the transcribed interview will be emailed to the interviewee for validation to ensure that the information is correct and that nothing is missed or misinterpreted

Thank you again for joining me to do the interview today. I'm going to go straight into the research questions as there is quite a lot of questions that we need to go through.

A. General Information

Question 1: Name of your enterprise?

- P9

Question 2: Size of the organisation?

- Size of my organisation in terms of employees is actually a one-man show and basically what happens is employees come and go depending on the project, however with that said I always have one to two like let's call them I do SEO so I always have one to two SEO guys and I have three to four writers which I do pay them on a monthly basis but they're not hired on a contract as an employee contract.

Question 3: What is the nature of your business of your enterprise?

- We do SEO and then also obviously if the client wants a website we build websites and then the sub-sub products would be Google ads and Facebook ads.

Question 4: What industry are you in?

- DM agencies.

Question 5: What function/position do you hold in the organisation?

- I'm gonna call me the CEO and the owner.

Question 6: Geographical location of your enterprise?

- Currently in Cape Town South Africa

B. Interview Questions

RQ1: What are the business processes required for SEs to digitally transform their business?

RSQ 1.1: What are the benefits and characteristics of DT?

IQ 1.1.1: What does DT mean to you?

DT wow yes DT would mean to me giving people more access to number one obviously the Internet and then understanding that guess what the Internet is not a is not such a dangerous place if you take the correct precautions and for example having a antivirus on your computer having parental controls

and all of that so yeah and then to the digital side of things DT would be that all companies would be able to trade online in a digital space.

IQ 1.1.2: Do you believe DT is important to SEs? If yes, why? If no, why not?

100 percent, well put it this way if you have a shop and your shop is located on road A and you have roads A B so you have roads A, B and C let's call it a D let's say that would be your geographic location where you would have feet coming through and seeing your shop now should you have a store and an online store your Geographic's can then become much larger to having been able to reach roads X, Y and Z.

IQ 1.1.3: What opportunities have your business pursued in DT?

In terms of DT can you dig a little bit deeper on that question so I can understand it better.

Okay maybe from your company perspective so for example if there was let's just say what you've done automation or you've switched over to or you've done I'm just gonna give you an example you've done your analytics on excel and now you're gonna do Google Analytics you've transformed something in your business digitally what have your business...

Okay so from our perspective for example one of our websites that's the lead generation site we have a contact form in that contact form it already asks qualifying questions. So we've been able to qualify number one who has the budgets to actually pay for our fees, number two are they a serious business, how long have they been in business for, do they have employees that depend on them and once they've gone through this whole questionnaire they then obviously get sent an email saying thank you very much for the for getting in touch with us should you wish to book a call with us they have an automated link that already sends it to them. We actually send them to a thank you page and on our thank you page we have the book a call with us and we will get straight to you once they book that call. Their information goes straight into a number one whichever sales person calendar would be. We also capture it into a spreadsheet and once they've done that we use a program called better proposals and automatically the better proposals then automatically create a proposal for them obviously in the lines of SEO they filled out the SEO contact form for example and then all that needs to happen is that when the salesperson is on that call they could then just send them an email. So in retrospect only been only been touched once by a human up until the point of the actual call, otherwise everything up to there is automated once the once the salesperson sends them that email with the proposal and they sign that proposal they automatically get a welcome email and in that welcome email they get taken to an onboarding contact form in that contact form they then once they've then filled out that contact form automatically in our in our project management software which we use oh my forgot the name sorry about that and that automatically creates the STO template project campaign and then and once that's happened automatically we send them the an email with it with an invoice and once they pay that invoice we it then sends them the logging details to that project management platform and then once again we would then go in and either tweak it should there be anything that needs to be added that was discussed on the call or in the agreement that has been concluded.

IQ 1.1.4: What are the benefits of undergoing a DT?

Okay it would take it would take a human two to three hours to set all of that up and if it's you or if it's someone that you're paying and you're paying them per hour then it's money time is money.

IQ 1.1.5: How does the company use the following digital technologies? A) Mobile computing (e.g. mobile apps, tablets, smartphones) B) (Big) Data/Analytics (e.g. analysing/leveraging data, digitalisation of physical assets) C) Social media/social networks (e.g. for marketing, contact with customers) D) Internet/networks (e.g. website, e-commerce, cloud computing)

Okay so mobile apps we don't do however we build websites that are let's call them mobile friendly so they're mainly built on WordPress, so they automatically resolve to the to the side of the screen. We then also use Woo-commerce, which would be the shop platform with that shop platform we will use pay fast as an as a merchant processor. There are many others but that's the ones that we've accustomed to use, but obviously that would depend on the client. With Google Analytics we check basically the obviously the traffic of the site. We also looked at goals and conversions e-commerce from your revenue all the way up to from your traffic all the way up to your revenue. Social media we would use Google ads and that can be for lead generation or that can be for sales in e-commerce, sorry social media within your Facebook ads sorry about that and then we would also use Google ads for lead generation most of the time and all of that would obviously then get connected using Google Tag Manager which allows you to connect them all without having to put on a whole lot of codes onto the website which in retrospect actually slows down the website so to help optimise for speed we would use Google Tag Manager connected it all up and then we would use one of our reporting software's that pretty much chews it up and spits it out into a easy to read format so that we can we week on week or

month one month send that to the client and the client can read through it and see exactly where his current campaign is doing if it's being profitable, if there's gains, if there's no gains and in all fairness fire us if we're not doing a good job but we're doing a great job pays us more.

IQ 1.1.6: When did you start using this technology?

Wow well I've been in DM since 2008, so I would say I've been using those since 2008 obviously with the growth for example Tag Manager didn't exist back then now it does so with the growth I would say would be 2015 when we started implementing what I just described and then every year new technologies come out so we would have to catch up and or add on or remove.

IQ 1.1.7: What was it like before this technology was implemented?

Well it would depend on the platform that you would be using but let's say for example Facebook, you would have to install your or your Facebook pixel and you would have to add your if you've got an event or a conversion type of event on each page where there would be obviously maybe if you're in e-commerce maybe a product all the way up to the checkout and the sale. Then if you were using Google ads you would have to implement on the page also the Google ads snippet and then with other software's that you would have to be able to track all of that you would you could also have to implement those codes onto the website pages so that everything can clash together what that does is it bloats the code using JS and with Google with Google Tag Manager it allows you to have one single JS code and implement pretty much all of that stuff.

IQ 1.1.8: Why do your company use this technology? (Do your company take advantage of digital technology e.g. increase customer satisfaction, reduce costs)?

It is because it helps to track better and you can and there on Tag Manager there's for example there's the preview part of tag manager when you hit the preview button you can see exactly where the tags are firing and if there's any errors and, and, and. Where on using just the code snippets you would only see that the tag is working because the traffic is there but until you for example let's take e-commerce because the e-commerce is hard for tracking especially under WordPress until that e-commerce website can be tested for tracking you would need to do a sale and or you would have to do a dummy sale which we would then put it in put the website into a sandbox to do all those testing's so I think that it helps to quickly add the tracking and all the necessary codes to the website and be able to test it in a live scenario.

RSQ 1.2: What are the business challenges for SEs to digitally transform?

IQ 1.2.1: What historic/current challenges exist when undergoing a DT?

I would say that most people are set in their old ways and for example they believe in newspaper advertising or they believe in TV advertising and they don't really understand that just because they're not seeing their ad on Google for example that doesn't mean that the ads not being shown. I mean I have a few clients that try and Google the keywords for the Google ads, so they can see their ad and a lot of the times because they've visited the website and it's their own website or maybe they're even logged in to their back end of their website they don't see those ads because Google has been told not to show it to them or Google just realizes listen you've come to this website so many times but you've never purchased anything and you've clicked from this ad where you wasted which Google might know or might not know that you wasted your own ad spend and every time you do that you don't purchase anything so I'm not going to show you that ad anymore because Google wants to show the most relevant content so I would say being set in old ways and having an open mind to getting any sort of DT. I mean a DT could be that they've never had a website and now they've gone they need to go digital.

IQ 1.2.2: Which organisational strategies are used to overcome challenges and to create value with DT?

It's a tough one because it all it depends on what the company does so I would look at what the company does and I would then do some research on tools that could help the company put out a project plan to show them listen, let's take a company let's take a store again we go to e-commerce again they haven't got an e-commerce site they want to build an easy website. The website has to work and they need to be able to go onto the website and change prices and you know manage the shop I would always suggest a WordPress website just because it's easy to manage and should you need any design or any complicated code well complicated in the sense of someone that's never been on in the back end of WordPress that they could learn it themselves or they could hire somebody for a few hours and they could get that fixed or all sorted out or build whatever the case be and then I would also pretty much depending and then depending on the size of the organisation I would also look at Google Suite which would I think Google Suite changed their name right now but it just it just allows you to number one most

people have a Gmail so if you send them a program that now they have to learn how to email they're going to get confused so should they have it have a Gmail I would maybe suggest to them Google Suite to be able to manage all of the company's emails and even more even documents you know having, we use all Google Drive stuff so we pretty much everything is online and all you need to do is send a link to a document and you don't have to keep on sending backwards and forwards documents where things can get mixed up and maybe someone sends the wrong document and then it hasn't been edited and then the wrong information is then processed for example.

IQ 1.2.3: What are the major consideration factors in your organisation that influence the choice of new technology adoption for the business? (e.g. cost, resistance from employees/customers/suppliers etc.)

Okay should it back to e-commerce should it be e-commerce that it can handle Rand and then should it be a software that the company can use for example let's maybe a lead generation platform where the you can see your whole lead generation funnel and where everybody's at. I would say that it would come down to cost and better if that program is in Rands for example we use for our Google ads we use a software called Word-Stream and Word-Stream you can pay it in Rands so you can you can see the price in Rands and that's going to be the price all the time where as we know South Africa the Dollar fluctuates and that's where software becomes very expensive. So being able to pay that software in Rands and if it's a monthly software or a yearly software it would be just one of the deciding factors. If the software allows multiple users some software only allow one or two users and then every time you're going to buy a license, buy a license, buy a license and depending on you know the return of investments of that that can actually become expensive so then that brings us to return on investment should it be a good return on investment that's the software I would go for. If it's not going to bring me something no.

IQ 1.2.4: How agile and flexible is your company to follow up on new technology trends?

How agile and flexible okay well I spend 24 hours a day online [Laughter] so yeah I think when it comes to new technologies and stuff like that I think because we know SEO and we understand the search engine I'm sure we can we can think of keywords and search when needed at the same time we have a network of digital marketers that we can also ask and rely on but so yeah so I would say we're quite agile.

IQ 1.2.5: How do you consider DT to be a source of value creation in terms of both customers and your company itself?

Well if let's go a client comes along asks for a website I build him the website then he realizes oh wow I need to advertise. So I do that service and I can provide that service that service provides my customer with an ROI (Return on Investment) and that service will also provide me with revenue.

IQ 1.2.6: How does DT impact organisational performance?

Okay so we have for example a client that's currently in the flooring industry they do epoxy flooring and his website was a good nice looking website, but it was old technology and we convinced him to update his the technology and move over to a different platform and the growth of that was in the few 500's to 800 percent just because he moved over and that growth also comes into obviously the SEO side of things where you can do more to the to the page and it also comes into the conversion aspects where we were able to take the website from converting 0.5 percent all the way up to now at between 5 and 8 percent in for conversions let alone adding the AdWords to that whole process so that they could you know gather pretty much more traffic and more conversions.

IQ 1.2.7: How does DT impact the following? Please discuss each of these: Leadership decision making, financial costs, organisational culture, employees (skills and adoption) and customer (adoption).

Okay well in terms of decision making I would say the person that's making the decision needs to definitely needs to be in line with technology and understand it if he's not understanding it it's going to be very difficult for him to make a decision and technologies change fast so decisions need to be fast. In lines of say second party.

Financial costs and lines of financial costs no client wants to spend money without getting a return on investment.

Organisational culture in the terms of being more organised in a company I would say when you can take digital and put it into a spreadsheet and or put it into a you know a project management type of software and it talks to each other that you can get a lot more organised than having a filing cabinet with paper.

In terms of employees and skills and adoption I would say that the company needs to invest in their employees and with that comes cost but you should bring in somebody professional to be able to teach that program or that way of doing things. Should it be a software or should it be a program a lot of them do have training that they would give to the company for using their software so and then also having a maybe a once a month training on the new features of the software or new or just trading of the software is definitely something that businesses should be investing in.

In terms of customer and adoption in terms of bringing them on board for DT.

That becomes a very difficult thing to do for example clients and people and I'm sorry to say this I'm probably at fault at this as well we're lazy we don't like to read and anything that you see in front of you on a digital screen if you just read it you'll and you understand what you're reading you're going to get through it perfectly fine there's nothing to be scary about however people are lazy they don't read. So I think that with the new normal and the new changes of everything is going online I think that people need to have a little bit of patience and not become anxious and just read what they see in front of them and for them to be able to do that your platform or your website or whatever it is that you're sending through to your clients has to be very clear messages do this now, do this then, do that and you're done so simplifying things as well don't try and don't complicate.

RQ2: How can SEs efficiently organise, support and enable a DT strategy?

RSQ 2.1: What are the factors influencing the formulation, adoption and implementation of a DT strategy?

IQ 2.1.1: What is your understanding of DT strategy?

My understanding would be taking a company that is as mentioned before setting its old ways advertising on TV, newspapers, having a filing cabinet and going into the company and auditing and doing an assessment of what could be digitalised and what can't be digitalised digitalise it then what you what you think could not be digitalised guess what it can go and then find that solution and add that to the mix and so DT aspects would be research.

IQ 2.1.2: In your opinion, would you say that DT can assist the company to be proactive to new disrupters entering the market? How and why?

So let's go with we actually have a website called Home Groceries and it's competing with Pick n Pay. So we were able to capture in the pandemic traffic from people that needs groceries now delivered to their homes and for Checkers and Pick n Pay's and Shoprite's and all of those on their digital space that was a bit disruptive for them for us it was the small guy can disrupt that.

IQ 2.1.3: Is there a clear technology strategy in your organisation? If yes, how is it in line with your business strategy?

I don't really go with a strategy. I look okay well my strategy is to look at DM as a whole and I look at okay where are we good at, where are we bad at, can we improve on what we're bad at, if we can't let's just put it aside for now and let's double down on what we're good at if we can improve on it then let's improve on that.

IQ 2.1.4: Have your company used a DT strategy before? If yes, was it a formal or informal strategy? If no, why not?

I would say yes because we moved our lead generation system from humans to automation. Well in a sense it was already documented because the SOP's of the company was that process in with using a human right, so it was already documented so we didn't have to document it however when we were doing it was informal because we didn't know if it was going to work and so we just added this, add this, okay let's test here, let's test this, yeah we got it all set up we tested it and then afterwards did we document the whole process which I've actually got a blog post on it.

IQ 2.1.5: If a DT strategy is not being used in your organisation, is there any consideration to adopt it in future? If yes, why? If no, why not?

I would say yes because everything changes and we've got to keep up with the times and we've got to keep up with the new technologies and I would say no because sometimes change is not good sometimes change doesn't work but if change is good then yes. If change is bad, then no.

IQ 2.1.6: Should your company decide on using a formal DT strategy, how would you go about the formulation, adopting and implementing it in your organisation?

I would say let's say that we take for example the from the lead generation all the way up to an actual sale where we don't have the client call or the sales call I would say that sales call if I could transform

that without having to be on the call meaning that the client comes to the website signs up does everything and the only time we actually pick up the phone is to say hello and welcome and he's paid he's gone through the whole process everything has been set up and all we're doing is we're just welcoming personally. So I would say that would be the DT that we could look at in the future and yes we would we would definitely document it and we would definitely test it to make sure that it's working because at the end of the day A B testing is what's gonna is what's to win inside of a digital field.

IQ 2.1.7: In your opinion, is there any belief that a formal DT strategy can assist SEs to successful digitally transform? If yes, why? If no, why not?

I would say no because it becomes very expensive for a small enterprise. Yes, if it costs were able to show an ROI and the client would understand I'm paying ten thousand rand now or a hundred thousand or two hundred thousand whatever the price is and in six months that ten thousand rand I'm going to get back so projected ROI's.

IQ 2.1.8: What are the major factors in your organisation that influence the choice of adopting and implementing a DT strategy for the business?

Okay it would definitely come down in South Africa it would definitely come down to cost and especially when it's a small enterprise to a medium enterprise it would definitely come down to cost and then it would come down to what benefit is it gonna get. Is it going to for example let's go with if somebody needs to collect data and you can do that automated or you can or you can do that with a person. Now you'll never get it automated you'll never get it perfect so you're gonna need a person whatever happens now when you when you collect that data that person then has to basically proofread it let's call it so yeah so I mean it would be more what would be the benefit of doing that is it going to save time is it going to allow for more revenue is it going to allow for better communication.

RQ2: How can SEs efficiently organise, support and enable a DT strategy?

RSQ 2.1: What are the factors influencing the formulation, adoption and implementation of a DT strategy?

IQ 2.2.1: How adoptive and responsive is your company to new technology?

I was I said adoptive we were pretty good with search and we're yeah.

IQ 2.2.2: How beneficial will adopting a DT strategy be to your company?

Yeah it would definitely be beneficial it would all come down to are we saving time are we having a better way of communication, are we I mean for example you could have a you know reps on the road and are they going to take a whole a big book with a product catalogue or can they just take a website and type it and put an order in or using an app to do that so yeah it would all depend on what benefits it's going to bring for sure.

IQ 2.2.3: Was there ever a time that technology you could not meet a customer's need? If yes, why? If no, why not?

Yes, because in this case it was the it's the Rand and the payment processors the company it's a website and it has a membership program and the membership plugins and that the website uses could not connect with for example PayFast or have Rand as a currency and PayPal doesn't support Rands so a client would be seeing that they're going to be paying this in dollars and they would be like thinking wait a minute I'm on a South African website, but I'm paying in dollars what's going on so yeah.

IQ 2.2.4: What are the most important lessons learned regarding these changes that you have made? Please indicate any specific success or failures with regards to digital tech. implementation?

In that case of the membership website it was a complete failure and we opted to go with Bigcom because the company still wanted still wanted to use PayFast and they were already using PayFast they were upgrading their services to a membership service and so what we then decided to do was instead of I guess it wasn't that much of a failure but instead of going for a month to month service we went into a yearly subscription.

IQ 2.2.5: In your opinion, where is your company now in terms of your organisational strategy?

Where is my company now in terms of my organisational strategy? I would say in the growth stage.

IQ 2.2.6: Where do you want your organisation to be in terms of DT the future?

Well it's that's quite funny that but I mean we completely online we don't we've never had offices so the DT of what's happening right now 2020 – 2021 we did that five years ago when we launched the company so even more actually going on company was launched 2013-2014 so going on seven years now we've never had an office we've always been online. So I would say would be growth and people being able to grow with what we call is digital VA's so virtual assistants and being able to grow the team and being able to get our SOPs all our operating systems across to the VA's or to an employee that is an online employee so I would say SOPs.

IQ 2.2.7: How will you get to where you want the company to be in the future?

Sales sales sales and more sales [Laughter].

IQ 2.2.8: What were the most influential trends of DT within your industry and what are the expected future trends?

I would say most influential would be in in let's say in our industry and in more into the product that I sell, which is SEO would be the amount of tools that you can now rely on to be able to look at a website and decide which direction you could you need to take and it and so SEO has become actually very easy to do. The part that makes it hard is actually logical thinking unfortunately a lot of people don't like to think like I have mentioned and so they rely a lot on these tools and I would say for the future would be pretty much automation and artificial intelligence and in SEO especially voice.

APPENDIX C10: INTERVIEW TRANSCRIPT OF I10

Please allow me to introduce myself again. My name is Mark Du Plessis and I am currently a Master's Degree student (Student number 203057791) at Cape Peninsula University of Technology, District Six Campus. The reason for my email to you is to seek permission from your company to conduct research that will assist me towards obtaining my Master's Degree.

The topic of my research is digital transformation Strategic Processes within Small and Medium Enterprises in Cape Town South Africa. The purpose of my study is to understand the business processes in implementing a digital transformation strategy within SMEs. My research method for collecting data will be a qualitative research method, through interviews with the participants. I am also looking at the data from objectivist viewpoint and therefore I am more interested in your journey, the journey of your company and how you follow up or adopt new technology to remain competitive in the market. The interview will last no longer than 45 minutes.

I would like to highlight the point that nothing will be done without the permission of your company and that ethically every step of my research will be conducted with your company's and the University's best interest at heart. No information about your company will also be published in my thesis without your permission including your name if you wish to stay anonymous. A draft of the transcribed interview will be emailed to the interviewee for validation to ensure that the information is correct and that nothing is missed or misinterpreted.

Thank you again for joining me to do the interview today. I'm going to go straight into the research questions as there is quite a lot of questions that we need to go through.

A. General Information

Question 1: Name of your enterprise?

- P10

Question 2: Size of the organisation?

No, it's just me.

Question 3: What is the nature of the business of your enterprise?

- Well, it's social media so I do social media for companies.

Question 4: What industry are you in?

- Mainly in the health care industry.

Question 5: What function/position do you hold in the organisation?

- Well, I'm a consultant, I'm the owner I don't know I'm the only person.

Question 6: Geographical location of your organisation?

- I work from home which is in Brackenfell.

B. Interview Questions

RQ1: What are the business processes required for SEs to digitally transform their business?

RSQ 1.1: What are the benefits and characteristics of DT?

IQ 1.1.1: What does DT mean to you?

It probably means transforming businesses into a digital side of things like doing things digitally with technology and keeping up with new technology moving away from old paper-based stuff.

IQ 1.1.2: Do you believe DT is important to SEs? If yes, why? If no, why not?

Yes, I do because I'm a millennial [Laughter].

IQ 1.1.3: What opportunities have your business pursued in DT?

So I believe there are many benefits to it makes things easier, it makes processes quicker, it just makes things simpler and it will help you to stay like ahead of what's going on outside in the world outside and especially now with the Covid thing we will see now like the pros of it

IQ 1.1.4: What are the benefits of undergoing a DT?

I would say, well sort of the same as I said now like speeding up processes or operations in business and then because I think once and oh you'll be able to cut costs if you were using older methods. Like my husband's company actually, they recently went paperless that's like no papers so they're saving a lot and I mean saving the planet all those things yeah and also now with people as well staying at home and stuff it's the best or to me it's the best way at the moment of marketing and getting your business out there is online digitally, especially social media because that's where most of the people are on all the time.

IQ 1.1.5: How does the company use the following digital technologies? A) Mobile computing (e.g. mobile apps, tablets, smartphones) B) (Big) Data/Analytics (e.g. analysing/leveraging data, digitalisation of physical assets) C) Social media/social networks (e.g. for marketing, contact with customers) D) Internet/networks (e.g. website, e-commerce, cloud computing)

I use my laptop or my MacBook and my phone and my tablet I use it all. It is the main things I use with my company to do my job and then I use all the social media platforms Facebook, Twitter, LinkedIn, Instagram, TikTok and then and I also do not use Google Analytics, but I do use analytics from the social media platforms like Facebook and LinkedIn. I'll do a report at the end of each month to see how much audience I attracted, how much views we had all those things and you know we do make use of ads but not always sometimes it's not paid ads sometimes you can use paid ads but it's depending on the client.

IQ 1.1.6: When did you start using this technology?

Well officially like as I'm doing this now I started in May 2020. So at the company, I was before they like the main client I have I resigned and then they asked me if I would do this because I was usually the one there ending up doing it so they knew if I left it's like who's going to do it.

IQ 1.1.7: What was it like before this technology was implemented?

Well, that time I didn't really do it a lot because they had another marketer but I sort of helped them set up the Facebook and everything, but there's definitely a difference so that person at the time wasn't much concentrating on social media but more on old school marketing face-to-face and stuff like that. So for my department which I was the manager of was training and we trained students as caregivers which is your class there is a lower class individual they usually come from more rural areas previously disadvantaged and for them. I always felt as the manager of that, our main market here is Facebook because they are all on Facebook and they are all interested in Homeless care, but you're not gonna really reach them through another way except you're gonna go walk with a flyer in Khayelitsha. Most of them don't have matric because they only require Grade 8 to do the course, so if you look at the level and so she did a few ads and stuff for the course and then since I've taken over I mean for the whole year like the classes have been full and that's just Facebook communication at the end of the month I'll see some months it'll be over 200 messages that I've answered on Facebook for people that are interested in the course so that definitely made a big difference.

IQ 1.1.8: Why do your company use this technology? (Do your company take advantage of digital technology e.g. increase customer satisfaction, reduce costs)?

It was to increase income because we are non-profit and so we don't make a lot of money so we need to cover the expenses so we need enough income so it was just purely to get more classes Covid put a hold on that for a while because we didn't have classes and now we still bound to a certain number of people and with social distancing but that was the main reason.

RSQ 1.2: What are the business challenges for SEs to digitally transform?

IQ 1.2.1: What historic/current challenges exist when undergoing a DT?

Yes, definitely like older generations a lot of them are reluctant to even try it. I know in our company they used to always go, but we always used to do it like this and then we say but we can't always do it as we did it in 1920.

IQ 1.2.2: Which organisational strategies are used to overcome challenges and to create value with DT?

It will take a while to sort of warm them up and then you have to teach them and when they get proper training and they have to like buy into it. If they see the benefits that they are getting from it then they all become more open to it.

IQ 1.2.3: What are the major consideration factors in your organisation that influence the choice of new technology adoption for the business? (e.g. cost, resistance from employees/customers/suppliers etc.)

Because the reason is that we want more and need more students which is more income I will look at the like how do I say is this a platform or a way that we will actually be getting new students and then what will the cost of that be compared to the number of people we'll be getting. So if I'm paying R10 000 a month for something to use like a platform or anything but I'm getting five students which are each paying R5000 that'll be a benefit still to me.

IQ 1.2.4: How agile and flexible is your company to follow up on new technology trends?

Well at the moment as I said I'm not really. I started really doing this and I was very excited but then since a year like a lot of stuff changed so I don't really want to do it anymore because like we want to grow the family and everything so just staying at home and yeah I've sort of lost interest where I'm not doing so much research anymore but in the beginning, I would always be on the Internet like reading news article to see what's new, what are people using. I also liked to, so I have a younger brother who's 19 so I'll catch up with him a lot because he always fills me in on what's new, what is Snapchat, what is this so I think you just need to try and stay ahead.

IQ 1.2.5: How do you consider DT to be a source of value creation in terms of both customers and your company itself?

For me, as I said it's safer it's quicker. The most important thing is it's quick and instant for the company for the students it's also cheaper for them because most of them have some sort of data to go on Facebook. If I'm talking specifically about this but they don't have airtime to maybe call the landline if they want to come to apply for the course but it will be easier for them to ask on Facebook "what do I need" "how can I come" they'll maybe ask me is there a WhatsApp number or something so I think it's also it's better for them definitely. They don't understand email, but they understand that they can attach stuff to Facebook and send it to us.

IQ 1.2.6: How does DT impact organisational performance?

No that would have had to look for another way. I really don't even know what to do about it we would have had to go old school again where we used to send flyers with the current students when they go out and they will like we would tell them if you send a friend and we'll put names on the bottom then you'll get like some sort of discount or something. So I really don't know how I would have reached them without that or the other thing I used to do is when I was still in the class I would actually like teach them technology stuff so let's open up an email for you guys let's sort of learn and assist them to get into technology.

IQ 1.2.7: How does DT impact the following? Please discuss each of these: Leadership decision making, financial costs, organisational culture, employees (skills and adoption) and customer (adoption).

Difficult to see as it's just me yeah I don't need anyone it's just me yeah you're the only decision-maker.

RQ2: How can SEs efficiently organise, support and enable a DT strategy?

RSQ 2.1: What are the factors influencing the formulation, adoption and implementation of a DT strategy?

IQ 2.1.1: What is your understanding of DT strategy?

Well, I don't have one but I'm assuming as with any strategy it would be like a plan to incorporate DT into a business and then to like carry it out evaluate see that it's working and plan to stay ahead with it that's what I would assume something like that.

IQ 2.1.2: In your opinion, would you say that DT can assist the company to be proactive to new disrupters entering the market? How and why?

Yes, it would. It sorts of helps you to plan ahead and sort of anticipate.

IQ 2.1.3: Is there a clear technology strategy in your organisation? If yes, how is it in line with your business strategy?

No, I have absolutely no strategies. I thought the...I sound so unorganised I didn't plan on starting anything. I just actually resigned to chill at home for a bit and then they phoned me asking if I would do this for them and it's the only thing that I thought, I spoke to some friends that have small businesses and then some of them were like oh but could you also help me, yeah so that's sort of when they're were okay looks like I'm doing this now. I'm helping people with this social media. I've actually gone back and started because I didn't start from the start I just started with all the people that I'm helping so I never had to look for business or anything so it's not it's like I started from scratch that's probably the reason. Yeah I do come from as a manager at the previous company I did like our because we were separate entity so I did our business strategy I did I've I know about these things and it was on my list of things it takes time and you need yes you really need to be motivated well I think to want to do something do I mean I'm just convinced you

IQ 2.1.4: Have your company used a DT strategy before? If yes, was it a formal or informal strategy? If no, why not?

(Question 2.1.4 not applicable).

IQ 2.1.5: If a DT strategy is not being used in your organisation, is there any consideration to adopt it in future? If yes, why? If no, why not?

If I were to continue doing this yes. I think it would assist in maybe growing the business getting more clients getting your name out there, to begin with.

IQ 2.1.6: Should your company decide on using a formal DT strategy, how would you go about the formulation, adopting and implementing it in your organisation?

Yeah, I think well if you're not using a formal one then you might as well probably just leave it if you're just going to do whatever you feel like but I would if I were to use one I'd have to go research it first like what look at what other strategies looks like what two research on before formulating it and trying to keep up with it.

IQ 2.1.7: In your opinion, is there any belief that a formal DT strategy can assist SEs to successful digitally transform? If yes, why? If no, why not?

I don't think a lot of them think about it. I mean the people I assisted when we started up their Facebook pages and stuff, they are all small companies most of them wouldn't have anything. They're just doing the actual job like for instance this one guy he did windows he does smash and grab. So they don't have a business card or even a logo not even to talk about a business plan or anything. It's just like people starting to do stuff and then they do just a little on Facebook they'll say if someone asks on this new info group do you know someone who needs and other comments. So when we started I gave them all like questions related to business plan like what are your company's goals etc. but it's usually guys to start with that are just doing hand's work and they're like not in the mood for this and they like can you just do the Facebook thing especially if it's males that are working with their hands. I think if it would be more like an admin type that's what probably the healthcare company is the most organised because they have these things in place.

IQ 2.1.8: What are the major factors in your organisation that influence the choice of adopting and implementing a DT strategy for the business?

Okay if I can get this out I would do that if I wanted to grow my business and maybe generate more income like if this was the one thing that I want to do then I feel like if I'm putting everything into it as I said at the moment I'm just really not yeah not that into it anymore but if I were to because I'm unfortunately I don't need to but I feel like if you need if you come at a point where you need to work hard and yes and do your own thing and you need money to gain for your family like I think then people will put 100 percent into things.

RSQ 2.2: What are the digital opportunities for SEs to adopt and implement a DT strategy?

IQ 2.2.1: How adoptive and responsive is your company to new technology?

Answered already.

IQ 2.2.2: How beneficial will adopting a DT strategy be to your company?

I think it would be beneficial as with all the things we've discussed now before. It could definitely be beneficial for me. Like I have to do something that's why now I'm not really doing it so that's why I'm losing interest but whereas when I was a manager I wouldn't give up. I mean I was the person that was at work at five in the morning until seven at night and then I like to do things properly and I think that's the best way. So the I would have a strategy for everything a plan for everything before you make the

decisions you need to go do research on stuff so if I were to pursue that in my company it would be important to me.

IQ 2.2.3: Was there ever a time that technology you could not meet a customer's need? If yes, why? If no, why not?

So we do we have to do for example face-to-face. I'm just discussing the training department. I mean it's vast and frail care and everything but I've come from the training. So they for example, the students may be don't have access to or they don't know how to do like we're having now an interview like this which would be a barrier because we need to meet them actually because I get an interview before they can get accepted in the course. So, for instance, that way a lot of them still do have to come into the office because we need to also assess like will they be able to physically do the job of becoming a caregiver because you were working with patients you think that someone else was a sore back and they're walking like this they won't be able to do the course, now in that case technology has not been helpful really.

IQ 2.2.4: What are the most important lessons learned regarding these changes that you have made? Please indicate any specific success or failures with regards to digital tech. implementation?

That's difficult we tried in the beginning actually of Covid to like get a WhatsApp group but then the one or two who didn't have a phone or WhatsApp so shame they help each other. So they will be like this one in my class lives near me so then I would ask can you please tell her to give this or I will even phone the other student's phone and say can you go call her for me to talk to her on the phone that's just the sort of things that we did I mean for the others there's not much we could have done especially when it was Covid they couldn't set foot out of the house in the beginning. So it was tough and even that person couldn't always just run to everyone to go to someone that would be close. That was probably the downfall, but the success is that I think a lot of them have gotten more handy with social media and they are communicating actually a lot more now on it than they did previously.

IQ 2.2.5: In your opinion, where is your company now in terms of your organisational strategy?
Nowhere.

IQ 2.2.6: Where do you want your organisation to be in terms of DT the future?

If I were to pursue it, I would like to then have a strategy, to begin with, and make progress.

IQ 2.2.7: How will you get to where you want the company to be in the future?

As I said previously I first of all need to research a strategy and then try and see what I need to be able to implement them and get it done.

IQ 2.2.8: What were the most influential trends of DT within your industry and what are the expected future trends?

I think well firstly recently it was a lot of information sharing digital information, especially on Covid now, to educate the public and tell the people what's going on if you think about like the president's address that we watched that's all digital and I think a lot of Doctor's I know like my doctor started doing phone consultations instead of going in to see the doctor. So I think maybe in the future people will use that more like maybe unless if you have basic symptoms of something why can you not discuss it online or have some form that you fill in online and have a digital consultation.

APPENDIX C11: INTERVIEW TRANSCRIPT OF I11

Please allow me to introduce myself again. My name is Mark Du Plessis and I am currently a Master's Degree student (Student number 203057791) at Cape Peninsula University of Technology, District Six Campus. The reason for my email to you is to seek permission from your company to conduct research that will assist me towards obtaining my Master's Degree.

The topic of my research is digital transformation Strategic Processes within Small and Medium Enterprises in Cape Town South Africa. The purpose of my study is to understand the business processes in implementing a digital transformation strategy within SMEs. My research method for collecting data will be a qualitative research method, through interviews with the participants. I am also looking at the data from objectivist viewpoint and therefore I am more interested in your journey, the journey of your company and how you follow up or adopt new technology to remain competitive in the market. The interview will last no longer than 45 minutes.

I would like to highlight the point that nothing will be done without the permission of your company and that ethically every step of my research will be conducted with your company's and the University's best interest at heart. No information about your company will also be published in my thesis without your permission including your name if you wish to stay anonymous. A draft of the transcribed interview will be emailed to the interviewee for validation to ensure that the information is correct and that nothing is missed or misinterpreted

Thank you again for joining me to do the interview today. I'm going to go straight into the research questions as there is quite a lot of questions that we need to go through.

A. General Information

Question 1: Name of the organisation?

- P11.

Question 2: Size of the organisation?

- We're a small business we employ seven.

Question 3: What is the nature of the business of your enterprise?

- The nature of our business is marketing and advertising.

Question 4: What industry are you in?

- Well, it depends on who you ask [Laughing], we obviously you know we're probably better suited to a marketing and advertising industry.

Question 5: What function/position do you hold in the organisation?

- I hold the Managing Director position of the business.

Question 6: Geographical location of your organisation?

- The business is based in Durbanville, but we work from all parts which I'm sure we'll chat about now.

B. Interview Questions

RQ1: What are the business processes required for SEs to digitally transform their business?

RSQ 1.1: What are the benefits and characteristics of DT?

IQ 1.1.1: What does DT mean to you?

DT really I think what it means to me is acknowledging how businesses changed. Everything is moving digital whether it be cloud-based security whether it be cloud-based communications whether it be data tools to to improve process there is everything in business is making digital and and and because we're a DM agency ourselves we've been fortunate enough to be exposed to a lot of it and and it's it's I guess it's about making use of uh, first of all, being aware of you know what what's available and then making use of it to finding ways to integrate it into your system to streamline your processes and improve your your outputs.

IQ 1.1.2: Do you believe DT is important to SEs? If yes, why? If no, why not?

Definitely, I think it's more important for the small enterprises almost because it levels the playing fields a bit. It gives a small enterprise a chance to perform you know on a similar level to a bigger company you know you can come across as a very professional outfit if you're making use of automated email responses and tools and data to ensure that your messaging on your website and your messaging with your clients remains appropriate so yes I think that it's crucial.

IQ 1.1.3: What opportunities have your business pursued in DT?

Well we we make use of obviously because we market and advertise our clients and ourselves on the use of a lot of [network signal breakage] for instance our system speaks with our CRM system which is our task management system without emails and communication. So you know as soon as I might have for instance in my CRM system I might have a list of potential leads that I'm working on and as those leads, you move through their process like okay I've now sent them the first inquiry now they've you know always responded to the first inquiry then a proposal has been created then they've asked me for a cost estimate and eventually they agreed to the proposal and I sign it off as soon as I sign it off it automatically falls into our workflow boards an email gets sent to the team which briefs them our accounting system is made aware and the cost proposal is automatically generate turned into an invoice so it's that system integration and automation that that really allows us to be proficient what we do.

IQ 1.1.4: What are the benefits of undergoing a DT?

Well, the advice the advice is that you know by making use of these tools you essentially you can do the work of many people with few. You know very often SEs are starting out and therefore you you've got a whole bunch of guys in one business that are wearing many hats and you have to you have to spread yourself fairly thin across departments and duties making use of really good tools and processes that are integrated can really empower the individual so you can grow quicker as a business.

IQ 1.1.5: How does the company use the following digital technologies? A) Mobile computing (e.g. mobile apps, tablets, smartphones) B) (Big) Data/Analytics (e.g. analysing/leveraging data, digitalisation of physical assets) C) Social media/social networks (e.g. for marketing, contact with customers) D) Internet/networks (e.g. website, e-commerce, cloud computing)

Well, all of our clients websites and digital assets are mobile responsive so that's the first way we integrate to mobile mobile nowadays has more engagement and activity than pc when it comes to search and content engagement online so so we ensure that that everything's mobile responsive and and set up for quick communication across mobile devices for instance if you visit one of our websites you'll notice that we use WhatsApp applications on our website so people can literally instead of having to send an enquiry it's much easier for them to click on a WhatsApp button and it automatically opens up in their WhatsApp application which is as you know much easier from a phone and you can even send a voice note so it just makes the the functionality and the capabilities very easy. Big Data well listen Big Data is a big word we make use of data and many data touchpoints but you know whether we're making use of Big Data I quite honestly say but we use Google Analytics and probably about 15 other tools that help us Serpstack, Google Analytics, hotjar built with I mean you name it there's a lot of particular data tools that we make use of which empower our business to to to be effective in what we do so we're making we're making use of multiple tools in that sense and then in terms of sort of the Internet and things we we make a lot of use of cloud-based communication. So all our documentations and information are cloud-based are shared automatically with different departments well not automatically but whoever you want to share with essentially so some documents I share with my staff and others I will share with my business partner and that allows and even us even our clients get you know good access to certain folders within our cloud and and then also obviously online communication as you know during the corona times and things so we do a lot of our communication online using Google meets.

IQ 1.1.6: When did you start using this technology?

We've been using it again I guess because of the nature of our business we've been we've been using I've been using some of these tools since you know mid-2000's mid's 2007 to 2008, I started making use of some of these tools and mostly between 2010 and 2020 and you know obviously as as time rolls on the more and more data tools are created for us to use so, fortunately, my business partner is a little obsessed with the process of testing out tools and systems and finding ways to integrate them so it does help.

IQ 1.1.7: What was it like before this technology was implemented?

Well here's just one example I'm quite because I'm a fairly creative individual my filing and my organisation with filing my documents and whatever's never been the best if I'm honest. So I've been able to make use of a shared cloud based system where we can store all our content and our information has made it very easy for me it's very organised it's held in one place and disseminated in a different in a very sort of variable ways that's great really like that and then in terms of analytics well I don't know how we survived the data to be honest [laughing] I can't remember we must have been chasing things around you know the bush with sticks and stuff i can't remember but it was data has just eliminated so much of the guesswork, you understand how to collate it and how to analyse it you can you can really make some real discerning decisions for your for your business so I imagine life was much harder we had to we had to make a lot more assumptions when we were advertising or marketing our business trying to promote our you know what worked and what to work .

I fully agree with you there. i mean excel if I look at analytics on itself it's still a little confusing but I'm sure Google is very much more simplified now.

IQ 1.1.8: Why do your company use this technology? (Do your company take advantage of digital technology e.g. increase customer satisfaction, reduce costs)?

It's added tremendous value I mean our entire business is built on the fact that we understand data and build and we therefore can build intuitive advertising campaigns which get a better result for our clients you know as time goes on so it's the crux of our business actually but in terms of cloud computing and those systems it's mitigated all the waste in terms of filing and cabinets and folders and it also doesn't hold you down you know like offices i guess were important when you didn't have a virtual you know we didn't have virtual files and folders where your information could be stored and accessed nowadays you know our work here in Somerset West, my business partners in Durbanville, two or three of the people that we work with are in the greater Durbanville area, one of our staff members who lives in Robertson, another in cape town city so you know we're now living in all these parts of the western cape and yet we're actually accessing the same information anytime we need it so you know meeting anytime during the day that we need to so really our entire business our office our storing of files folders invoices everything is now cloud-based it's it's all digitised and online and I actually don't even know what to I wouldn't know what to do with a ring binder [Laughter]. I got one here in my home office, but it belongs to my wife so I'll have to have a word with her.

RSQ 1.2: What are the business challenges for SEs to digitally transform?

IQ 1.2.1: What historic/current challenges exist when undergoing a DT?

It's understanding it's it really is just an understanding of what's available and then making sense of what's available because there is so much that is available that it's very easy to find yourself in a position where you're quite overwhelmed. We see this with a lot of our clients they don't know which tools are most appropriate for their style of business or for what they're trying to do and they don't quite know how to implement it all. Um, so I think that the biggest hurdle is sort of just the barrier of entry you know it's like understanding what's available and then once you understand what's available being able to sort it and make sense of what would be most prevalent for your particular business.

IQ 1.2.2. Which organisational strategies are used to overcome challenges and to create value with DT?

Well, I guess I it all depends on where they're coming in from, but again that that level of understanding. It's trying to not do too much at once you know why is it that big CRM systems like salesforce often fail because it's damn near impossible to go into a business that's like barely making use of digital tools and now try and set up a sales force that is through the line that's integrating absolutely everything from accounting to marketing to sales funnels and leads and data and hr it's all in one place. So I would caution him against that I would say like for instance if it is if he's looking to sell sheets on you know he's no longer no longer wants to sell linen from his mom and dad's shop and they've built this really good reputation he wants to go online i try and maybe advise him to use a system like Shopify which allows him to set up drop shipping quite effectively which means that he can sell his own product but he can also then make use of people other people's products that might be housed somewhere else and and it's integrated with his accounting system his data his website data and it will be integrated with a delivery company transport company that would then get the information when a booking is made send the information to the transport company the transport company would then go pick up the person from where whichever depot it's at and then deliver it to the destination and this is all just within Shopify's capabilities without you having to add or integrate anything. So do you see what I mean it's it's about like just finding simple things that are already automated that make sense for your particular industry so it will vary for for you know from industry to industry.

IQ 1.2.3: What are the major consideration factors in your organisation that influence the choice of new technology adoption for the business? (e.g. cost, resistance from employees/customers/suppliers etc.)

It needs to it needs to solve enough problems you see when you implement something like that when you take on a new piece of software or an application of some sort it's going to disrupt you know so it will cause certain problems certainly in the short term you need to make the decision way up whether in the long term then change will be worth the disruption in the short term.

IQ 1.2.4: How agile and flexible is your company to follow up on new technology trends?

Very flexible as I mentioned my business partner literally gets a kick out of you know learning about new applications and tools like this and I mean i can't tell you at any one time he's he's got a 30-day free trial on about five or six different things and he's testing them out and playing with them so you know we're very open to adding new tools and systems. I think you need to be you need to you know nowadays technology is so powerful that small advances in technology can make big differences in business output so you know you can literally actually separate yourself from your competitors just based on the kind of technology that you're implementing in your business.

That that makes absolutely sense especially in this day and age that we live in where everything is online yes.

IQ 1.2.5: How do you consider DT to be a source of value creation in terms of both customers and your company itself?

Absolutely I mean for instance my our customers quite enjoy the fact that when they first start engaging me they will be shared a document online which they'll be able to access online meet me online I'm then able to walk them through that document and then ask for a cost proposal which they receive online with if they are happy with it they can accept it automatically accepts try and turns it into an invoice and sends them an invoice with an automated email which tells them that this has now been on boarded and our staff will be in touch to debrief them on starting the campaign and all those little bits of automation and communication automated communication make the whole process very safe and comfortable for a client. They feel like they always know what's happening they see it happening and then when they see it as well I think it's impressive they feel comfortable kind of giving handing over the responsibility the very important responsibility of marketing their business digitally marketing their business with a company like us because they can see that we understand this sort of technology and it's impressive on first sight.

IQ 1.2.6: How does DT impact organisational performance?

Yes, I mean again based because of the nature of our business we are positioned right in the middle of of DT. Starting with the most important or certainly one of the most important elements of any business and that's effective marketing and advertising. So so you know we we weren't even forced into having to consider DT we we were just at the cold face the whole time so you know you you you're just in the mix you're reading the right sources of information you're testing the right things. We're very fortunate I mean if I look at the position our businesses in at the moment and how digital our DM business has managed to navigate the corona viruses last year I'd say that that we've we've been very fortunate.

(P11) - Sorry Mark give me a second actually I have something starting in a few minutes I just need to quickly just touch base with the person?

(Researcher) - Okay no perfect that is absolutely fine by me.

[P11 left to answer a call]

(P11) - Howzit?

(Researcher) - I'm still here thank you.

(P11) - Sorry man we're gonna wrap this up. I need to jump on the next call in a couple minutes.

(Researcher) - Okay that's fine let me to see which questions I'll quickly finish off what I need to do.

IQ 1.2.7: How does DT impact the following? Please discuss each of these: Leadership decision making, financial costs, organisational culture, employees (skills and adoption) and customer (adoption).

Not answered.

RQ2: How can SEs efficiently organise, support and enable a DT strategy?

RSQ 2.1: What are the factors influencing the formulation, adoption and implementation of a DT strategy?

IQ 2.1.1: What is your understanding of DT strategy?

Not answered.

IQ 2.1.2: In your opinion, would you say that DT can assist the company to be proactive to new disrupters entering the market? How and why?

Not answered.

IQ 2.1.3 Is there a clear technology strategy in your organisation? If yes, how is it in line with your business strategy?

Not answered.

IQ 2.1.4 Have your company used a DT strategy before? If yes, was it a formal or informal strategy? If no, why not?

I can't honestly say a complete DM a DT strategy. I don't I don't believe that there is such a thing not a complete one at least. I think it's so dynamic and changing so quickly that really what you have is a starting point so it's a first phase DT strategy. and yes we often are meeting with clients and sort of pinpointing the priority the low-hanging fruits it's like let's change this particular part of your business or system and it's going to transform so many other parts automatically. So we're involved in in helping our clients to take those first steps but whether it's a full strategy I can honestly say.

IQ 2.1.5 If a DT strategy is not being used in your organisation, is there any consideration to adopt it in future? If yes, why? If no, why not?

Not answered.

IQ 2.1.6 Should your company decide on using a formal DT strategy, how would you go about the formulation, adopting and implementing it in your organisation?

Not answered.

IQ 2.1.7 In your opinion, is there any belief that a formal DT strategy can assist SEs to successful digitally transform? If yes, why? If no, why not?

Not answered.

IQ 2.1.8 What are the major factors in your organisation that influence the choice of adopting and implementing a DT strategy for the business?

Not answered.

RSQ 2.2: What are the digital opportunities for SEs to adopt and implement a DT strategy?

IQ 2.2.1: How adoptive and responsive is your company to new technology?

Not answered.

IQ 2.2.2 How beneficial will adopting a DT strategy be to your company?

Not answered.

IQ 2.2.3 Was there ever a time that technology you could not meet a customer's need? If yes, why? If no, why not?

Not answered.

IQ 2.2.4: What are the most important lessons learned regarding these changes that you have made? Please indicate any specific success or failures with regards to digital tech. implementation?

Not answered.

IQ 2.2.5: In your opinion, where is your company now in terms of your organisational strategy?

Not answered.

IQ 2.2.6: Where do you want your organisation to be in terms of DT the future?

Still at the still at the cold front [laughing] okay let's go let's go right at the front of it you know I think that any anywhere else wouldn't be satisfactory especially not in our business I think in our line of work if we're not right up front then then we're right at the back.

IQ 2.2.7: How will you get to where you want the company to be in the future?

Not answered.

IQ 2.2.8: What were the most influential trends of DT within your industry and what are the expected future trends?

Digital trends that we we're noticing a lot of at the moment. that's a that's a good question I mean I can't honestly tell you what I think the trends are other than the fact that data is becoming an ever-increasing important subject and there are so many people you know building tools and applications at the moment which are data-focused and very incredible. and then just integrated systems I mean I I guess that's what we're finding is we're starting to find that there are more and more systems that are integrating they're making it easy to integrate with one another like through plug-ins already of a readily available API's to sort of connect the systems so that's becoming almost you know in the old days you would act very often have to build an API from scratch in order to get two systems to communicate with one another that could be quite an expensive process nowadays very often these systems automatically come with plug-ins which are very easy to implement and you can get two systems to communicate with each other almost automatically.

APPENDIX C12: INTERVIEW TRANSCRIPT OF I12

Please allow me to introduce myself again. My name is Mark Du Plessis and I am currently a Master's Degree student (Student number 203057791) at Cape Peninsula University of Technology, District Six Campus. The reason for my email to you is to seek permission from your company to conduct research that will assist me towards obtaining my Master's Degree.

The topic of my research is digital transformation Strategic Processes within Small and Medium Enterprises in Cape Town South Africa. The purpose of my study is to understand the business processes in implementing a digital transformation strategy within SMEs. My research method for collecting data will be a qualitative research method, through interviews with the participants. I am also looking at the data from objectivist viewpoint and therefore I am more interested in your journey, the journey of your company and how you follow up or adopt new technology to remain competitive in the market. The interview will last no longer than 45 minutes.

I would like to highlight the point that nothing will be done without the permission of your company and that ethically every step of my research will be conducted with your company's and the University's best interest at heart. No information about your company will also be published in my thesis without your permission including your name if you wish to stay anonymous. A draft of the transcribed interview will be emailed to the interviewee for validation to ensure that the information is correct and that nothing is missed or misinterpreted.

Thank you again for joining me to do the interview today. I'm going to go straight into the research questions as there is quite a lot of questions that we need to go through.

A. General Information

Question 1: Name of the organisation?

- P12.

Question 2: Size of your organisation?

- We have 11 full-time members full-time staff and we have another 4 contract workers and we work with a range of various freelancers as well.

Question 3: What is the nature of your business?

- It's an advertising and DM.

Question 4: What industry are you in?

- Specifically, the marketing and advertising sector, but we function across the industry.

Question 5: What function/position do you hold in the organisation?

- I'm the Managing Director.

Question 6: Geographical location of your enterprise?

- We are Cape Town based.

B. Interview Questions

RQ1: What are the business processes required for SEs to digitally transform their business?

RSQ 1.1: What are the benefits and characteristics of DT?

IQ 1.1.1: What does DT mean to you?

So simply put it's the adoption of an integration of technologies that allow ongoing competitiveness to occur.

IQ 1.1.2: Do you believe DT is important to SEs? If yes, why? If no, why not?

I think it's absolutely fundamental I think and believe the shift towards digital systems has increased over the past 20 months and at the rate of digitisation, it's only going to increase as we continue and

if small businesses are unable to tap into the infrastructure as well as the outputs i.e. services they're at a disadvantage.

IQ 1.1.3: What opportunities have your business pursued in DT?

So we continuously explore research and development. We do quite a bit of research as to how products are evolving, we conduct these primary and secondary research approaches where we understand our clients' needs but also keeping a pulse on the market in terms of what's happening in other geographic locations and assessing their needs companies alike and in the R&D (Research and Development) cycle we then establish the needs that of our audience's customers that then allows us to either continue funding certain services of innovation into digitisation or discarding it so this is a definite connection between supply and demand of digital and innovation as well.

IQ 1.1.4: What are the benefits of undergoing a DT?

That's a broad question as every industry and size of the company has its own sort of pulse and requirements and I think sometimes people might get confused with the idea of adopting digital for the sake of it versus understanding if it's a real need in the business. But where there is a need that is established there is many case studies to highlight the benefits linked to efficiencies rate of innovation the ability to expand one's client-based network the ability to solve complex solutions through multiple layers of technology that can speak into each other. I think there's depending on which sector depending on what type of business there are many benefits to it.

IQ 1.1.5: How does the company use the following digital technologies? A) Mobile computing (e.g. mobile apps, tablets, smartphones) B) (Big) Data/Analytics (e.g. analysing/leveraging data, digitalisation of physical assets) C) Social media/social networks (e.g. for marketing, contact with customers) D) Internet/networks (e.g. website, e-commerce, cloud computing)

I guess it's two-fold, it's what we do for ourselves and then what we do as a service offering. So on point one with mobile, because we develop websites we always ensure that the user from a mobile perspective is considered so we have what we call an approach to design which is mobile-first. Before we look at desktop we first look at what does it look like, how does it function, what's the experience on mobile and when we build it from a mobile it's easier than to interpret it into desktop and that's sort of moves into point two of data, which we've invested into and it's one of the products that's been in research and development on our site which is a database management platform so because we use high amounts of media we buy large amounts of media it gives us access to a lot of data and that data needs to be stored and interpreted and analysed and presented in a way that makes sense to different people. So we've developed our own system for data management and within that system, we've got skill sets so data architecture data senior data analyst etc. so we utilise that for ourselves we use it predominantly to not only to store data but to transform it into information the information then allows us to better understand who our customers are or potential customers which then helps with communication.

Okay then point three was social media and social networks?

So we are quite active in social media is a TV channel if you could put it in that way so it keeps you entertained but the backbone of it is advertising and for us marketers the advertising is very useful for growing businesses and people engage with content that is relevant to them and they whether they're looking for car or house or food or clothing that's where ads come into play so we use that for ourselves we use Google we use Facebook we use LinkedIn for advertising as well as for building community and we, therefore, offer it as a service to clients as well.

Okay and then lastly Internet and networks like website, e-commerce and cloud computing.

Websites the old technology but it's certainly used largely widely for customers to have an online presence so we develop websites we have four of our own in the business we offer it as a service to clients and I suppose e-commerce is just the extension where it allows for a certain behaviour to happen on the website like purchasing or completing a purchase but it's all part of the same sort of ecosystem.

IQ 1.1.6: When did you start using this technology?

I would say about 24 months ago.

IQ 1.1.7: What was it like before this technology was implemented?

So our business has only been around for about five years, so sort of leading up to 24 months ago we weren't engaging in much data. So as our products and services evolved so do our capabilities so prior to that our core focus predominantly was on was less on paid media more on social media and social media is less, so there's less data required versus paid media. We didn't have a need for it at that point, but as our service developed into paid media, it then required a solution for data.

IQ 1.1.8: Why do your company use this technology? (Do your company take advantage of digital technology e.g. increase customer satisfaction, reduce costs)?

I guess it's all of those reasons and more. Data has become an asset and there are legislative requirements around how data is stored and also in compliance with POPI or POPIA. Thus storing and the way data is stored and accessed and how it is managed becomes important for anybody that sits with data. So if you as a company don't follow these sort of benchmarks global benchmarks and a bigger company especially with working with bigger companies it becomes a disadvantage to our knowledge base so 1) is to ensure that its integrity around our offering to generate further income we get to then sell it off as a service 3) there are pros and cons to everything and but there's certainly lots of pros to managing and storing data in a way that has integrity. So it's especially with the likes of using systems like AWS where you don't have to have a server room you can have it sitting in a cloud that's stored in multiple locations for safety and security and accessibility so which points to efficiency so there are many reasons why yes.

RQ2: How can SEs efficiently organise, support and enable a DT strategy?

RSQ 1.2: What are the business challenges for SEs to digitally transform?

IQ 1.2.1: What historic/current challenges exist when undergoing a DT?

I think largely people get romanticised with technology so it becomes a buzzword for DT or digital adoption or versus really understanding how it can support the business. So for example of our DT, we shifted over the past 24 months from a more traditional setup business to a more robust digital business and one example is on people's experience which is challenging when there is a limited experience or attitudes towards digital and then it's when there is a better attitude or more fluid attitude towards adoption of digital visible so then the process of knowledge transference so training access to training and of course once you have access to training you then need to practically work with it so that one's understanding is more around so I guess that same prince principles applied to clients who are needing to adopt digital is to ensure that it's 1) making sure that it's for the right reasons 2) making sure that there's the right skill sets and then 3) that are training to continuously learn how technology is advancing and shifting to keep abreast with because it's also one thing to be trained on a piece of technology and then in three months it's outdated and the people responsible are not advancing in their knowledge of it becomes a limiting to implement a technology solution when the people and so you can't just plug a piece of technology into a system it still requires people to activate if that makes sense.

IQ 1.2.2: Which organisational strategies are used to overcome challenges and to create value with DT?

So part of implementing anything is a bit of change management, change management can support various adoptions of changes. So training is a big part of it and not working or preventing working in isolation and just implementing something and expecting people to just grasp I think that's a big lesson for a lot of big corporates and also small to medi businesses which are to have clear communication speaking through sort of protocols and steps for adoption of a piece of technology with all the people involved stakeholders and developing a clear plan the plan needs to include training and onboarding of new technology so that when it is implemented the car can be driven it's not just the car that's sitting in a parking lot that nobody knows how to drive.

IQ 1.2.3: What are the major consideration factors in your organisation that influence the choice of new technology adoption for the business? (e.g. cost, resistance from employees/customers/suppliers etc.)

I suppose costs are always a factor it's always the costs benefit so what is these costs allowing to happen or what is the solution solving what is the problem I'm trying to solve. I suppose that's a big one.

IQ 1.2.4: How agile and flexible is your company to follow up on new technology trends?

I think like any company we try to keep abreast of what's happening and I guess it becomes a culture thing right. So if I as the owner is wanting to ensure this becomes a piece of culture then I'll develop the framework to encourage team members so my threshold for so what I one of the areas that I look after in the business is R&D. So R&D is a cycle that allows us allows for innovation and adoption of new technology and then product development. So as a sort of business focus we've got a core sort of line where research and development is the core of what we do and that then encourages everybody else. So simply put we do have I think a healthy adoption threat of new technology.

IQ 1.2.5: How do you consider DT to be a source of value creation in terms of both customers and your company itself?

How do I see it as a source of value creation for both the customer and the company itself? So I think from an internal point of view a few months ago we were all sitting in an office and you would have likely called me up to have a cup of coffee to do some research. So the value is that we can exchange we can build relationships across the globe without having to move to open our door and we get to build teams from across the world with skill sets that are more applicable and we get to have home life balance if we choose and I think those are pretty broad and extensive values and I think it spans across the industry. I think in education online learning has become quite popular and so has e-commerce for retail goods and I think there's even during this sort of code period one can see even because you don't even have to if you don't test drive a car you can book the car online and will arrive at your door, so convenience is the value which is definitely linked to accessibility.

IQ 1.2.6: How does DT impact organisational performance?

Again I think it depends on the type of business but when we look at the benefits it's clear there are clear benefits one of them we spoke about efficiency so if I can do something quicker and easier by adopting a piece of technology then that becomes a better way of doing something.

IQ 1.2.7: How does DT impact the following? Please discuss each of these: Leadership decision making, financial costs, organisational culture, employees (skills and adoption) and customer (adoption).

Yeah, I think they're all impacted similarly but different in many ways especially when it comes to the data side of things. So being able to if you've got a big company you've got employees around the world by you looking at a dashboard you can see your overall costs of what it's costing to pay for benefits for employees in certain countries, that is technology and it's a particular financial and/or human resource tool and if I want to see a snapshot of the financial forecast I can plug it into a system of formula and a computer can give me forecasts and again that's important for financial management decisions so data becomes the fuel in which the car drives and the driver is the heads of the departments that need the information to decide which way to turn so I think that's a big one.

RQ2: How can SEs efficiently organise, support and enable a DT strategy?

RSQ 2.1: What are the factors influencing the formulation, adoption and implementation of a DT strategy?

Q 2.1.1: What is your understanding of DT strategy?

So I guess in our business we look at it as a sort of maturity model and the maturity model looks at the foundation starting from the knowledge base and it works its way up from the knowledge base, consulting, understanding, training to various sort of service layers and at the top, we have the ability to store and report on data so that's a model that we look at. We develop a framework to then walk a client through that transformation or that maturity model.

IQ 2.1.2: In your opinion, would you say that DT can assist the company to be proactive to new disrupters entering the market? How and why?

I guess when you look at reporting tools I mean you just have to put a hashtag into social media to be able to do research on a particular trend, but I think the disruption and that's like a research component. I believe that there's quite a bit of it lacks quite a bit in our industry. So we have in our industry we have like sort of trend analysts they go out and they do the sort of research and then every year they release certain papers or eight papers or and generally the sense is that we only have to wait for those papers to be released and then boom we will know what's ahead for the next year or two and I think part of it that's then gets missed is the sort of playfulness of technology how do we play around with innovation and without having any serious repercussions in terms of high investment I think that's where R & D is needed and more people allocating resources towards R & D, but what sorry to your original question. I guess I'm answering it in a sort of roundabout way, so how through more research and development.

IQ 2.1.3: Is there a clear technology strategy in your organisation? If yes, how is it in line with your business strategy?

No, we don't have a documented technology strategy.

IQ 2.1.4: Have your company used a DT strategy before? If yes, was it a formal or informal strategy? If no, why not?

Yes, we have and it's been formal.

IQ 2.1.5: If a DT strategy is not being used in your organisation, is there any consideration to adopt it in future? If yes, why? If no, why not?

Yes, it is always good to have models documented and a process that can be followed for scalability.

IQ 2.1.6: Should your company decide on using a formal DT strategy, how would you go about the formulation, adopting and implementing it in your organisation?

I guess we're a bit better at doing it for our clients than what we offer ourselves, but theoretically adopting it for ourselves so one of the things we are busy with as an internal project is called an onboarding program. So our onboarding program is for new hires employees, consultants clients and it's built into a modular course. So one of our businesses is a digital learning business. One of the modules in the course includes various technologies that we use across communication, across design and part of that we also include is a module around innovation while specifically culture and inside the culture, we have notes around innovation. So that then encourages everybody that's interacting with the content to understand what's expected from a culture point but it's also modular in that, as technology is adopted we can do a quick training update and then slot it in so that even if you've gone through the learning you can go back and re-learn a component where they require a bit of change management or technology adoption.

IQ 2.1.7: In your opinion, is there any belief that a formal DT strategy can assist SEs to successful digitally transform? If yes, why? If no, why not?

I think it can I just believe that the approach needs to be specific to small businesses and therefore one of the learnings that we've come to understand is that the same language can't be used for a company that has 100 people and a company that has 2 because the maturity level to some degree is in most cases, not in all cases but the majority of cases and therefore even like the expression of digital needs to be simplified and I think when it when it is and when it can be then definitely it will be highly beneficial.

IQ 2.1.8: What are the major factors in your organisation that influence the choice of adopting and implementing a DT strategy for the business?

It must have clear benefits. The benefits are clearly expressed and if the need is clearly understood and the two meet each other than that becomes an opportunity, but if I don't understand something and it's not presented in a simple way it can be seen as time-wasting because business as usual needs to be maintained if I only got eight hours a day and I'm spending three hours a day on something that I have no idea then it's a waste of time in my perception of things.

RSQ 2.2: What are the digital opportunities for SEs to adopt and implement a DT strategy?

IQ 2.2.1: How adoptive and responsive is your company to new technology?

(P12) - Is this a duplicate question?

(Research) - Yes, actually it's almost similar to your flexibility so I think you answered that one it's fine let's go on. I think I'll just refer that one back to question 1.2.4, so it's fine let me just make a note here.

IQ 2.2.2: How beneficial will adopting a DT strategy be to your company?

I guess in our particular company we are a marketing company, so if I take that as the foundation I would then imagine that it would be wrapped around marketing needs and if it was presented efficiently enough and the benefits are clear the adoption of it then would allow a sense of contributing towards or a sense of innovation or culture planning or culture discussions that then becomes a catalyst for enhanced behaviours of attitudes around adopting digital or technology and I think the more people they are in the business that's championing it the easier thing becomes to implement and/or to research or to initiate projects.

IQ 2.2.3: Was there ever a time that technology you could not meet a customer's need? If yes, why? If no, why not?

Yeah, I think there are two reasons why that could happen. If the client's need is not understood and that can happen from either the client-side or from the consulting agency side and therefore a wrong solution or incorrect solution is considered actually. There's another one and then there's also potentially no clear pathway as to how something is being adopted. So if there are five steps in those five steps I don't communicate it and it's a disorganised onboarding of a piece of technology, that also influences something negatively. Then as we've mentioned the right talent internally and attitudes towards it and I think on the positive side I think I think it's just the reverse of those people who are more digitally native having people who where there is a culture of innovation and technology adoption that then helps to clearly understand and define the problem so that when the technology is adopted and onboarded the right infrastructure and resource is applied.

IQ 2.2.4: What are the most important lessons learned regarding these changes that you have made? Please indicate any specific success or failures with regards to digital tech. implementation?

Not understanding why and not understanding the reason why there is a need for new tech. I think that's the biggest one. No, I am just saying a lot of times as I've previously mentioned DT is a sort of vehicle and you fall in love with or become romantic with. So it becomes about technology and not about the solution and sometimes people use that to showcase intelligence or to showcase value. There are plenty of case studies of where the wrong technology is integrated and it's a failure because the need is not understood and I think there's an adverse, there's an extension to that where companies also make money from selling technology and sometimes they don't really care about whether it solves the solution and you can end up spending a lot more resources on solutions that don't offer much value. It is incremental value but not at the level at which it could be and I think there is sometimes simpler ways and an example could be instead of somebody wanting a website and going to a partner that charges them four hundred thousand rands for a website perhaps they don't need the website right away and they could start with a Facebook page and they could interact and transact with a Facebook page until there's substantial growth to then initiate a bigger project with a lot more resources.

IQ 2.2.5: In your opinion, where is your company now in terms of your organisational strategy?

As I said we don't have a formal strategy, so I can't give you a definite answer exactly but it has become part of our culture if I consider our onboarding module that considers but more change management and culture of technology adoption are about a month away of having that program finalised to then initiate training through our teams.

IQ 2.2.6: Where do you want your organisation to be in terms of DT the future?

So I think it's a bit of a personal question from us because every company will have its own sort of trajectory but we definitely see ourselves as an entry-level player in the market and because of our sort of robust goals we want to compete for some of the bigger business that's available in South Africa and Africa because of that we need to have a higher rate of understanding of various technologies from the sort of more common social media and media to the more complex of AI (Artificial Intelligence) and blockchain and how that sort of transforming the industry and us being able to play around with it as I've said so that we know how and what are the limitations of it instead of being caught up in the romance of it to know how and when to implement it for specific solutions.

IQ 2.2.7: How will you get to where you want the company to be in the future?

I guess for us it's a bit of change management that has to happen in terms of our systems so if people leave our business new people to join we need to have a consistent flow of talent that thinks similarly about the same stuff so we need to have our training program in place that's updatable it doesn't have a time stamp on it anybody that interfaces with our organisation can be exposed to the sort of membrane of how we think and the more people their own business that adoptees and participate in challenges of incentivising accordingly the better our chance of getting towards that and moving towards that.

IQ 2.2.8: What were the most influential trends of DT within your industry and what are the expected future trends?

I think our industry is broad because we interface across the industry but I can't speak to maybe education or finance. We've definitely seen during Covid the rise of webinars there's a sort of deeper need for personalisation there's a need to keep abreast with what's happening with a big tick. So how privacy is managed with WhatsApp to how ads are monetised on Facebook how targeting is implemented by LinkedIn and the algorithms to match like across Google. I think in the future is if you just look at your own behaviour I'm not sure how you use voice to search for things on your phone when you're driving, so as behaviour changes that become the trend. I think there will be in the industry, there will be and there has been a growing need for data as you've also highlighted in your questioning but not just so data in the raw format is meaningless so it's more for meaningful data or should I say information which then feeds into other areas like personalisation and whether we want to build experiences across mobile or desktop or various forms of access devices that's just a few I mean there's lots it touches on in various parts of marketing but that's sort of high level.

APPENDIX C13: INTERVIEW TRANSCRIPT OF I13

Please allow me to introduce myself again. My name is Mark Du Plessis and I am currently a Master's Degree student (Student number 203057791) at Cape Peninsula University of Technology, District Six Campus. The reason for my email to you is to seek permission from your company to conduct research that will assist me towards obtaining my Master's Degree.

The topic of my research is digital transformation Strategic Processes within Small and Medium Enterprises in Cape Town South Africa. The purpose of my study is to understand the business processes in implementing a digital transformation strategy within SMEs. My research method for collecting data will be a qualitative research method, through interviews with the participants. I am also looking at the data from objectivist viewpoint and therefore I am more interested in your journey, the journey of your company and how you follow up or adopt new technology to remain competitive in the market. The interview will last no longer than 45 minutes.

I would like to highlight the point that nothing will be done without the permission of your company and that ethically every step of my research will be conducted with your company's and the University's best interest at heart. No information about your company will also be published in my thesis without your permission including your name if you wish to stay anonymous. A draft of the transcribed interview will be emailed to the interviewee for validation to ensure that the information is correct and that nothing is missed or misinterpreted

Thank you again for joining me to do the interview today. I'm going to go straight into the research questions as there is quite a lot of questions that we need to go through.

A. General Information

Question 1: Name of the organisation?

P13.

Question 2: Size of the organisation?

- We are four, sorry I lie we are eight people one of those the freelancer and one of those are part-time contract but otherwise everyone else is full-time.

Question 3: What is the nature of the business of your enterprise?

- We're a DM company we help those businesses by clarifying their message and then we use different digital channels to roll out their marketing activities.

Question 4: What industry are you in?

- Marketing.

Question 5: What function/position do you hold in the organisation?

- Founder, strategist, sales, admin, accounting everything that my team isn't working on.

Question 6: Geographical location of your organisation?

- Somerset West

B. Interview Questions

RQ1: What are the business processes required for SEs to digitally transform their business?

RSQ 1.1: What are the benefits and characteristics of DT?

IQ 1.1.1: What does DT mean to you?

DT means a number of different things one of them being whether or not businesses have been able to adapt to working in a digital space and being able to work remotely possibly in the last year has proven whether or not companies can do that. I still got an email this week of somebody who's never been on a Zoom session, which I found quite surprising so it's how adaptable businesses are in a digital space and with their marketing as well whether or not they're able to connect in a digital space and find ways

of relationship building where it's quite a colder environment there's no personal interaction or connection necessarily until you create it and that can be quite challenging for businesses because their initial is to sell sell sell rather than just relationship build first and then rely on the sales to come later.

IQ 1.1.2: Do you believe DT is important to SEs? If yes, why? If no, why not?

Yes, it is important there's a couple of different things I could definitely say one is that it opens up business opportunities that they might not have if they aren't using the space because they can connect with more people than more broadly and secondly if they're not visible in a digital space it can severely hurt their business I've had cases where I've wanted to pass referrals and I've chosen not to suggest certain service providers because they haven't had a presence digitally knowing that the person I'm referring them to or that I want to refer is going to go and do research they're going to want to go and see what this business says about themselves what clients have said about them and general feedback and I've even had feedback from people who have said that they've chosen not to go with a service provider that was referred to them even though it's "hey I used this guy and he was absolutely amazing" because they couldn't find them online.

IQ 1.1.3: What opportunities have your business pursued in DT?

I suppose firstly just even our own marketing that we rely mostly on DM. We do other things like networking and relationship building in other spaces and I am exploring more traditional means of marketing because there's a different market that we can connect with there, but first and foremost we walk the walk so making sure that our own presence is up and up to date and doing the things that we need to do so we can trend set so we can also have good examples for our clients is foremost very important for us as well as any strategy that we want to roll out for clients I test with our own business first so if it's a new approach to a platform or a new platform we test it and then we can better advise our clients so there's that and then currently thanks to Covid we are working a hundred percent remotely so we've needed to look at how we were doing things because we went from an office environment where we were in contact with each other every day it was quick and easy to touch base and where's this project at I need some help here to project managing, time managing and client manage remotely and we've done and adopted different means of doing that and it's been a shift but it's been good for our business and I'd actually say it's increased productivity.

IQ 1.1.4: What are the benefits of undergoing a DT?

So, my team is definitely working I wouldn't say harder or better in a sense but they've been very productive with their time because they can time manage better there's less distractions for them though I do encourage them to do good breaks you know I believe in them being kind to themselves first so that we can make sure that a solid you know solid a wallet after team just is going to produce better creative results for our clients so that's very important even though it's so easy to sit behind your computer and do Zoom session after Zoom session or just sit for eight hours and create. So that's been a benefit and also even though we've been a digital agency this shift to online and transforming like this has increased our capability with working with overseas clients because we're more comfortable doing it because we've had to and because of that we now have a number of UK, US and Canadian clients that we're working with we didn't have before. Before we went through a severe transformation had one UK client so that sector has increased because of it and it's allowed us to work with some larger corporations and Joburg as well so we're not just geographically you know located or dependent on the businesses in our immediate area for business.

IQ 1.1.5: How does the company use the following digital technologies? A) Mobile computing (e.g. mobile apps, tablets, smartphones) B) (Big) Data/Analytics (e.g. analysing/leveraging data, digitalisation of physical assets) C) Social media/social networks (e.g. for marketing, contact with customers) D) Internet/networks (e.g. website, e-commerce, cloud computing)

So, those we actually don't have anyone on tablets because I think it's easy for us at the moment to be sitting on your laptop computer or your desktop at home but as far as mobile is concerned we do use a number of apps including the social media apps that we work with analytics was it Google Analytics, Google ads we have a scheduler that we use that we have an app for as well as our reporting program so that we've got access to all of our data and capabilities mobility [sic] as well and yes other than that as far as apps are concerned we do talk to our business owners about app development where it's necessary and actually we've got two clients that are only app-based businesses that we do marketing for so as far as the word app and its capabilities are concerned we're quite involved there.

We focus in on a number of different platforms Facebook, Instagram, LinkedIn, TikTok, Twitter, Pinterest, YouTube being the main ones I think that yeah there's way more than that but those are the ones that we deal with and we use that for our own marketing and research purposes but also for those

are main vehicles for us to do marketing for our clients with and then Google ads and Facebook ads included in that sorry you'd mention that just to qualify we do use those as well.

We are fully in the cloud as far as all of our data storage is concerned our accounting is in the cloud there's basically nothing that we need to work with on our own machines we also are set up on G-suites so all of the Google products are available and we also make use of Microsoft 365 so everything is there and it's available and that's beneficial especially with what we do with short-form content because if clients want to make changes or if we decide to go in a different direction you've got one copy of one document and you're not ever concerned about is this the right ad copy that's going out so yeah.

IQ 1.1.6: When did you start using this technology?

I think that's easier because being digital marketers we've always used certain of those from the inception of the business but when I started employing a team I then went over to cloud storage because then any documents were available to all of us at any point in time versus trying to maybe try to get something out of someone while they're in a meeting or not enough for whatever reason. So that was the first integration and that would have happened back in 2019 and from there we've gone our accounting was actually always on the card even though I've used different programs so we've made three changes there now I'm very happy with the program that we're with which is good and things like G-suite and Microsoft 365 we've started using more since the beginning of last year because our client base grew so we didn't want to have to follow up with which document is the correct document exactly that problem I've just mentioned making sure the right content was going out and it became one lesson that we needed to manage while we focused on growing our client base.

IQ 1.1.7: What was it like before this technology was implemented?

I think that from my perspective it felt like it was like the best way of doing things and it was okay and you kind of make your own system but realistically from the minute we started using these programs because they are streamlined it has made the world of difference for accessibility for yeah just smoothness of our processes it's definitely helped with that a lot and it's just makes it more I find it easier to use I will say though that some of our older clients do tend to hire us because DM is a scary space for them or they don't have the patience to learn it the move to digital can be a little bit challenging with them so sometimes even just being able to get them to open a word like a Google doc properly can be a challenge and for them to know what it is they need to do so we have found that we've needed to increase our client education and working with them in that regard.

IQ 1.1.8: Why do your company use this technology? (Do your company take advantage of digital technology e.g. increase customer satisfaction, reduce costs)?

I wouldn't say it necessarily reduces cost because our cost per sales and our operating costs are very low to begin with because it's a service industry even if access of information is the main reasons and streamlining processes for some clients it's definitely the best thing we could have done for them and then for others it's not just because they're not there so I can't really say that overall it's increased client satisfaction I think sometimes some of them feel more frustrated with us because of it but yes saying that because of that we're looking at an avenue that will work for them which isn't G-suite or Microsoft related but rather that they have their own interface that they can interact with us on which we can customise for them that's where we're heading just to actually help the ones that are struggling.

IQ 1.2.1: What historic/current challenges exist when undergoing a DT?

I think it's definitely a mind-set change because if you're used to things being available at your fingertips or if you are a paper person and you like printing and having paper in front of you it is quite a change to be completely honest I still have a paper diary just because I like to visualize it and use and use colours even though I've got Google calendar I make sure that the two correspond which is probably not necessary but it really does work for me so I've kept that one up yeah it's a mind-set shift and I think the big thing is that you can feel like you're losing control of your information and of how you do things but once it's set up it's actually it's there and it's accessible and even more accessible I find than anything else if I decide I'm going away for a weekend for example and a client messages me and they need something as long as I can jump onto a computer then I can get it to them or one of my team can get it to them if I really can't get onto a computer so it just it helps us problem solve and respond faster as well.

IQ 1.2.2: Which organisational strategies are used to overcome challenges and to create value with DT?

In terms of mind-set I think I'm very up for open communication because I thought that just has a space where you can then know exactly what the problem is and you can find a solution for it so I find that if that's the case and which I think is very tricky it's very tricky to say "Hi I don't know what I'm doing"

because we feel that people might judge us with technology but if that's the case then we can easily find a solution so open communication and an open communication policy definitely helps with that and also focusing in on interpersonal relationships so connecting with team or connecting with clients and making sure that they understand or have access or if they do need anything so keeping those lines of communication open makes a big difference to getting that right and I think if as a leader of a business when people come to you with ideas as well that can help to not just shut them down because it doesn't necessarily work for you or you don't know what it is but to then spend the time with them finding out what it is that they're talking about and why they're suggesting it and making a decision as to whether or not work for the business and if not maybe there's another solution or you know if the way you're doing things is good then that's fine but there might actually just be a better solution that needs to be found as well.

IQ 1.2.3: What are the major consideration factors in your organisation that influence the choice of new technology adoption for the business? (e.g. cost, resistance from employees/customers/suppliers etc.)

Costs can definitely be a factor not all of the technologies are free and some of them can charge exorbitant prices which for a smaller or medium business can be it can be a problem definitely there's been decisions that I've held off on at times because that you know the amount that we're looking at just doesn't seem to justify the end and I think the thing with that is there will always be another product that is going to come along which will undercut the market and you don't necessarily have to always be an early adapter I do think that being aware of the options in front of you is good so rather maybe not an early adapter but something just below that rather than only changing when you add a serious frustration point because when we're frustrated we're making decisions quickly and not necessarily always the right decisions for us and it might not be the right decisions for our business so but saying that I have gotten to that point and that's sometimes been why we've made a shift in the changes we've hit a frustration point and now we need to make a decision we need to find something that works better and it's easier to use or streamline something those will be yeah the reasons for it streamlining of processes is also a really big reason for me to use it especially with developing team and a client base because we need things to work in the same way all the time without someone going and reinventing the wheel and it needs to be easy enough for them to use that so that's the case.

IQ 1.2.4: How agile and flexible is your company to follow up on new technology trends?

As far as different marketing channels we are constantly researching those and seeing what's available and what the options are so for so for that I would say very flexible sometimes with the integration of new technologies for back end and system or you know your day-to-day working we might be a little bit slower I wouldn't say that I'm I've never been an early adapter but I'm not the last person to grab onto tech either so probably you know my medium to moderately there.

IQ 1.2.5: How do you consider DT to be a source of value creation in terms of both customers and your company itself?

For us I think if we weren't Tech forward people would have a really hard time trusting us so that makes a very big difference so we're expected to be experts we really are asked strange questions from anything from basic to very advanced things and I think for the very advanced things to be able to say I'm not sure I'm going to get back to you on that's okay but if it's something like how do you schedule a post on Facebook, for example, you need to be able to spit that answer out off the back. So and I'm often confused with an I.T service provider because we work in the same space so I make use of I.T services and I'm good at doing that but I'm not going to go and wire somebody's office and set up their Internet name and all of that but because there's that misconception between the two it's you do sort of need to know a decent amount of what you're talking about or at least have somebody you can fall back on for exactly those the more technical things that people might ask.

IQ 1.2.6: How does DT impact organisational performance?

It's definitely increased it from my perspective we've been able to do a lot more and connect a lot easier and we've also got various methods to connect and work on so that's made a good yeah definitely a big difference for our business and could be a lot slower if we were still just working off of you know our desktops and things like that only making use of the Internet for access to the channels we use.

IQ 1.2.7: How does DT impact the following? Please discuss each of these: Leadership decision making, financial costs, organisational culture, employees (skills and adoption) and customer (adoption).

I think it's the big consideration to take into account when making decisions because it can have impact on teams anytime you want to roll out a new technology there needs to be an awareness that there could be a need for team training or downtime or slowness to certain processes while you're busy

figuring it out and getting all the nooks and crannies arranged so I think it can be a big decision to do especially if you're looking at your team competency as well most businesses probably have a good mix of generations on their team and not that generations are always an indicator of how tech-able they are but you know it can give you a basic idea and it's just it's something to keep in mind with when you're working with your team that some of them will be faster adapters than others some of them will need a bit more handholding some will be resistant and that that's also okay so yes it definitely I think has a big impact on that.

Financial costs is dependent on the software so some of the stuff is free so that would be fine but with a bit of research and time spent on finding the best solution for you tend to actually be able to cut a lot of costs I find and find something that's cost saving for you or even programs that can do more than one function for your business.

I think it's organisational culture I think what's tricky is with where we're currently at is organisational culture is a bit different than what it would be if we were in an office being very tech forward so I think it's good that it's allowed us to connect in a time when it's been very difficult to but there's still a level of human interaction which I think is very important for businesses to have good healthy corporate cultures and healthy corporate culture is a healthy business so there's that side of it however I do think that it enables people to do a lot more maybe than sometimes what they feel they could and that helps move them in the right direction as well on the other side as well as even with training and education you have team members who thrive in that space so that creates a new connection point for them to help and assist people where they get stuck or need help.

Okay so employee skills and adoption it can be very just dependent on their own tech-ability with at the beginning of the process and I do think that a large percentage of that previously was so I'd say with like gen x and your millennials not all of them necessarily had access to technology while they were growing up and we know that that makes a big difference as to whether or not families are able to have had a computer in the home for example I mean if the first time you see a computer is in your work environment or at university then you are years behind others who've had that access. I think that gen z maybe not as a whole but is better in that cell phones are so easily accessible so that at least there's been that point of contact and in groups that haven't had access before so it's very dependent so it's not just age dependent we do need to take family background into consideration as well and help and assist with as much as possible with the team that I've employed today to have all been quite tech-able before which has been good and then when we've suggested new technologies it's mostly been all right so we're moving to this new platform now and I've got some tentativeness from it's interesting I actually announced it today and I said got access I'll have everybody up and running on it by Friday we're gonna hit the ground running with it on Monday but you'll have some time to get used to it and my two oldest employees had the two opposite reactions so both ladies are over 50 and the one was oh this sounds so exciting and she's amped and she's game but she's always worked in a marketing agency so she's used to fast pace and the other one was I don't even know what that is what is CRM and I'm not so sure you know so that was interesting so yeah and the rest of everybody else is just like yeah okay sure we'll get on it no problem or everyone younger than 30 is like cool no worries so that was very interesting however there's definitely a willingness to learn and to develop and when I've suggested trainings for different platforms then also for example one I was looking at for this year is everybody upping their skills on Google products that they're not well versed in and everyone was quite enthusiastic and it was great to see them actually going oh I'll do this one and I'll take that one and oh I've never worked with that product before let me learn some more so that was yeah team willingness is a big difference can make a big difference I think so.

In terms of custom adoption I find that our clients who are willing to learn and want to understand at least the level of what we do because we work in a digital space we can get better results for them because they understand at least to a level what it is that we're doing and it's not just this big black void that we're filling with their money as far as they're concerned the ones who are very tech avoidant or have no interest and want it run for them we tend to knock it as good results because you're also constantly reaffirming what you're doing for them and trying to convince them why this is a good idea versus actually working on it together so I find that it creates a silo if you've got a client that is not interested or able you then don't run as part of their business but you actually run alongside it and that's not the best space for your marketing activities the thing that's supposed to bring you revenue to not be 100 percent under your control.

RQ2: How can SEs efficiently organise, support and enable a DT strategy?

RSQ 2.1: What are the factors influencing the formulation, adoption and implementation of a DT strategy?

IQ 2.1.1: What is your understanding of DT strategy?

It's a rollout plan that's been researched so you can decide what's going to work well for your business.

IQ 2.1.2: In your opinion, would you say that DT can assist the company to be proactive to new disrupters entering the market? How and why?

Yes, I think it gives you access to new markets at times and even it can help you find niches that nobody else is filling so you could actually have new service or product offerings that nobody else has thought of or be the market disruptor yourself because it could be something that turns everything else on its head if we think about something like Uber for example that was Tech really disrupting it because you could have an app on your phone and have a car with you in two seconds and that's changed the market as to how we think about transportation.

IQ 2.1.3: Is there a clear technology strategy in your organisation? If yes, how is it in line with your business strategy?

I think there could be a clearer strategy, to be honest, so no I don't think I've ever looked at it from that perspective where I've gone hey these are the things that we should use and this is why when we have a need that comes up I do so my strategy would be identify need, do research, pick best solution well do some testing, then pick best solution and roll out that's how I approach it but there's no necessarily forward-thinking in that I'm looking for stuff before there's a program that helps me I'm not that person and that's all right.

IQ 2.1.4: Have your company used a DT strategy before? If yes, was it a formal or informal strategy? If no, why not?

I think it would definitely fall into informal so it's exactly that need-based rather than proactively?

IQ 2.1.5: If a DT strategy is not being used in your organisation, is there any consideration to adopt it in future? If yes, why? If no, why not?

Okay perfect and if DT strategy was not being used in your organisation is there ever consideration of adopting one in the future but you've answered yes for that so you're using that so it's fine I've got the answer for that one.

IQ 2.1.6: Should your company decide on using a formal DT strategy, how would you go about the formulation, adopting and implementing it in your organisation?

That's something I would actually look at getting advice on and finding out what companies have used effectively rather than just going and trying reinventing the wheel so rather yeah what's worked what hasn't and make decisions based on that and that's something I'd probably look at doing by outsourcing to a consultant like an I.T support or something along those lines or if it's going to be a more integrated approach I would hire somebody in-house to look after that objection.

IQ 2.1.7: In your opinion, is there any belief that a formal DT strategy can assist SEs to successful digitally transform? If yes, why? If no, why not?

I think yes. I think it can act a lot like cash flow in your business when it's not there it just highlights all the problems that you have and things are a lot harder whereas if it's working properly and it's in place you can actually focus on what it is that you do and what you bring to the market so you can look after your clients so yeah yes.

IQ 2.1.8: What are the major factors in your organisation that influence the choice of adopting and implementing a DT strategy for the business?

I think the most important things that whatever we look at adopting makes sense for our business not that we're just trying to put something in place and we mould into it rather that we find technologies that work with the way that we work and streamline what we do.

RSQ 2.2: What are the digital opportunities for SEs to adopt and implement a DT strategy?

IQ 2.2.1: How adoptive and responsive is your company to new technology?

NB* This question was answered in question 1.2.4.

IQ 2.2.2: How beneficial will adopting a DT strategy be to your company?

I'm sure it would be very helpful.

IQ 2.2.3: Was there ever a time that technology you could not meet a customer's need? If yes, why? If no, why not?

No, I don't think so I think the one thing that can always you know work against DT is the "human error" if we want to call it that element of it so you know if something is not working and it's been designed to work in a certain way and we know that it's not invasive testing or there are limited bugs whatever that might be because we need to take that into consideration even Facebook is not flawless and has its issues we need to look at what the human error is and decide how to move past that so it can tend to be an education issue as far as the tech is concerned or misuse and you know those identifying and working past that would then resolve those issues.

IQ 2.2.4: What are the most important lessons learned regarding these changes that you have made? Please indicate any specific success or failures with regards to digital tech. implementation?

Yeah, I think if you haven't done your research properly if we look at implementation specifically and you have you don't necessarily know all the ins and outs of the program before you roll it out on a large scale that's asking for trouble so rather that you know as much as possible before rolling it out in your business not just deciding ad hoc that will work for you because maybe somebody else is using it you know that whole thing or but they yeah they have it maybe we should have it too that is not a good approach.

IQ 2.2.5: In your opinion, where is your company now in terms of your organisational strategy?

Organisational strategy okay perfect we are getting there I mean we definitely are still SME scale level and I didn't start with a business background even though I've got a marketing degree and so it's been learning and training and going through coaching and reading and developing it as we go. We are definitely miles ahead of where we were there's still a long way to go and we yeah I'm always looking for ways to make the business better and look at what we can be what I can hire in as well that collaborates with the strengths that I started this business on and creating cohesive team so those are the focuses as far as our organisational strategy is concerned.

IQ 2.2.6: Where do you want your organisation to be in terms of DT the future?

We definitely are already contacted by clients and non-clients to help with ideas or we're the go-to maybe they'll know the answer to this question that we have for certain people rather than Google and that's something I want to be the case going forward because it opens up other conversations as well like their marketing or who else might need help or assistance so yes to be the go-to for our client base and those who know us at least any wider than that will be a good bonus.

IQ 2.2.7: How will you get to where you want the company to be in the future?

Our own marketing and making sure that that is strong on education and connection I don't tend to hard-sell very often because I want to element to highlight that human element so even though this is digital it the human element is important in business and it's something I feel that we often forget and we've actually turned it into quite a robotic space in some ways so that's one element of it as well as extensive networking and connecting with more and more people and that along with things like workshops or speaking engagements can make a big difference in this space as well so being pitched as the authority in our field in any means possible.

IQ 2.2.8: What were the most influential trends of DT within your industry and what are the expected future trends?

Well I think the big one from the last year has been the move to Zoom and that has kept businesses going and possible and able so that's been a big one and I think not only just a big one I mean basically the killing off of any other competition they were really just in the right place at the right time yeah I think going forward we're going to see more of it even though we are seeing an increase in Zoom fatigue as well it's something that's enabling us to do business and it's opened up a global market so we're going to see more of that we're going to see more businesses connecting globally because they can't rely on their own country to survive especially right now but the next couple years is going to be interesting as far as that as well it's a definitely a tricky time to try and determine what the future looks like because everything changes so often right now but I think we're also going to see some disruption in the social media space Facebook has not started the year well and I think they're trying to recover and what's happened in the public's mind is a platform that's "always been there and has been strong" has suddenly looked weak and they've realized that this could easily go the same way that MySpace did or any of the other social media platforms that have collapsed and that it could open space in the market for something else which could be better or worse but there could be a gap in the market there's always things emerging and it's always interesting to see what connects with people and what sticks.

APPENDIX C14: INTERVIEW TRANSCRIPT OF I14

Please allow me to introduce myself again. My name is Mark Du Plessis and I am currently a Master's Degree student (Student number 203057791) at Cape Peninsula University of Technology, District Six Campus. The reason for my email to you is to seek permission from your company to conduct research that will assist me towards obtaining my Master's Degree.

The topic of my research is digital transformation Strategic Processes within Small and Medium Enterprises in Cape Town South Africa. The purpose of my study is to understand the business processes in implementing a digital transformation strategy within SMEs. My research method for collecting data will be a qualitative research method, through interviews with the participants. I am also looking at the data from objectivist viewpoint and therefore I am more interested in your journey, the journey of your company and how you follow up or adopt new technology to remain competitive in the market. The interview will last no longer than 45 minutes.

I would like to highlight the point that nothing will be done without the permission of your company and that ethically every step of my research will be conducted with your company's and the University's best interest at heart. No information about your company will also be published in my thesis without your permission including your name if you wish to stay anonymous. A draft of the transcribed interview will be emailed to the interviewee for validation to ensure that the information is correct and that nothing is missed or misinterpreted

Thank you again for joining me to do the interview today. I'm going to go straight into the research questions as there is quite a lot of questions that we need to go through.

A. General Information

Question 1: Name of the organisation?

- P14.

Question 2: Size of the organisation?

- It's hard to say because it's only two so we just me the CEO and then the COO and then subcontractors, but now it always varies so I always work with subcontractors I don't employ unfortunately.

Question 3: What is the nature of the business of your enterprise?

- Web design okay web designing with development I'll put it in that web design and web development.

Question 4: What industry are you in?

- I'm sure that will be web development itself, web development and design uh why is I design because we do logo design, we do general design, vector designs, SEO's itself and then obviously so that's website software anything that's got to do with development of websites.

Question 5: What function/position do you hold in the organisation?

- CEO

Question 6: Geographical location of your organisation?

- We are situated in Tokai

B. Interview Questions

RQ1: What are the business processes required for SEs to digitally transform their business?

RSQ 1.1: What are the benefits and characteristics of DT?

IQ 1.1.1: What does DT mean to you?

To me it will be basically digitalised or digitally creating or even modifying processes to meet businesses and marketing requirements such as how a business delivers value to his customer or even from taking paperwork and then moving it over into online that's my understanding.

IQ 1.1.2: Do you believe DT is important to SEs? If yes, why? If no, why not?

Yes, because I mean it provides opportunity for the core business functions to move away from manual processes and just go into the automated key areas and the advantage is that this will help focus more on the business opportunities itself then trying to solve and trying to fix small certain problems that they can't handle which is already digitally transformed

IQ 1.1.3: What opportunities have your business pursued in DT?

What opportunities, social media automation, automated messaging data analytics or automated messaging data analytics. We have done even contracts automated contracts so if a client signs up and ticks off all the boxes it will automatically send the contract to the client which will do a digital signature or which will require digital signature.

IQ 1.1.4: What are the benefits of undergoing a DT?

To be honest benefits is I do not have a big hassle with employees. I don't have any how do I say labour work to deal with compared to just having automated systems. So that's basically what benefited I mean it also improved productivity, it increased the profits comparing to getting someone in the HR where I can just have a HR part itself and even with customers I mean as a digital company I can't be running a non-digital server with a digital company so it even helped with my customer experience and enhanced data collection itself.

IQ 1.1.5: How does the company use the following digital technologies? A) Mobile computing (e.g. mobile apps, tablets, smartphones) B) (Big) Data/Analytics (e.g. analysing/leveraging data, digitalisation of physical assets) C) Social media/social networks (e.g. for marketing, contact with customers) D) Internet/networks (e.g. website, e-commerce, cloud computing)

Okay as I'm gonna go through even generally all these questions that I'm answering if I go off track please let me know to come back on track you know because I always ask for examples some things are just unreasonably big within wording where it could be simplified but okay mobile computing I help with my email responders I mean when I'm not at the office. The ability to accept payments wirelessly to collaborate with my clients and my employees like I said anywhere and anytime to access a real-time data. With data analytics I'll say keep a digital record write and rewrite improving website software design and systems to better user experience. Social media and networks I'd say attract customers build customer loyalty that's with the market. Internet all I can say is with websites e-commerce cloud computing is that your one yes that's your one okay so I'll say communicate with customers and employees research help manage my business from anywhere in the world even documentation signing that helps a lot and self-doing the projects on

IQ 1.1.6: When did you start using this technology?

I'm trying to think now when the business started, because that was exactly the get-go before I even started my business I had the plan the plan was to go fully digital as much as possible or to the extent that I could so I would say June I'll say around about June this year.

IQ 1.1.7: What was it like before this technology was implemented?

I can just say yes. I can say while busy throwing up the business plan and having being a freelancer it was quite time consuming and it really knocked the head in the sense that you have to you keep track of your documents but you don't know where to look or your documents are just here but it's not been in chronicle order for example okay so I can say before that yes its time consuming.

IQ 1.1.8: Why do your company use this technology? (Do your company take advantage of digital technology e.g. increase customer satisfaction, reduce costs)?

I mean unfortunately I can't promote digital a digital company without having digital work and it means but it really helps with our subcontractors because our subcontractors are located around the world. So I mean this is one major reason why we push going digitally is more for our subcontractors because I'm like I said we look for subcontractors not just in South Africa itself but we look around the world just to get the best out of the best that we can find.

RSQ 1.2: What are the business challenges for SEs to digitally transform?

IQ 1.2.1: What historic/current challenges exist when undergoing a DT?

When going on the DT I'm sure it's okay from my experience it's always about security and budget that's always been a challenge I mean I think even prior to DT itself. I feel that people just don't realize the work that goes into it.

IQ 1.2.2: Which organisational strategies are used to overcome challenges and to create value with DT?

Well to me as being more clear and understanding at the end of the day clients need to know what you're doing and if you can show what they're doing they will understand more what's happening. When I do DT I show them the process that I go through I show them what information they receive from me so they can see actually all the work that goes into it it's not just example if a client wants to wants to have a website it's not just the website itself it's the site map it's the wireframe it's the prototype but it's so much different information and how do I say not just information but so much I'm gonna say documents I try to I will always try to explain to the customer or the client that the value of your money is what I'm trying to give back to you and that's why it's expensive for you. It's more for me to like explanation is key, communication is key with when it comes in between those and like even for me if I would say communication it's that once you get the deal and then people would want to hear from you even more because it's their money at the end of the day.

IQ 1.2.3 What are the major consideration factors in your organisation that influence the choice of new technology adoption for the business? (e.g. cost, resistance from employees/customers/suppliers etc.) It's competition to be honest let's just say for example it's a software that can that can give you that competitive edge in the market or there's a there's a new piece of equipment that can make you be faster or design something that you couldn't have designed before what would you consider before you say okay yeah we're going to take it into our company we're going to implement it we're going to adopt this new technology what factors do you consider?

Okay I actually see an example but I have a reason for it it's cost unfortunately it has to be cost because at the end of the day I do sub-contracting so if it's gonna cost me cheaper to do it myself I might as well do it myself, but if the cost is obviously going to be cheaper than what I'm going to pay to do it then I will always say it's cost because technology I mean today's good technology is perfect by tomorrow so we never know what comes out by tomorrow.

IQ 1.2.4: How agile and flexible is your company to follow up on new technology trends?

Well I okay sorry for repeating myself constantly but uh like I said we are digital only company that has to be agile and flexible for the nutrients and ways to improve various categories such as even user experience or even site performance so we are very agile and flexible we keep up with news we even have an automation of news that comes through just to keep updated.

IQ 1.2.5: How do you consider DT to be a source of value creation in terms of both customers and your company itself?

To be honest its data I think that's the most valuable keys that improve the business and the customer doing launch better or even better than daily life or even move everything forward to improvement you need the data so I'll say data.

IQ 1.2.6: How does DT impact organisational performance?

It improved productivity performance very much reducing the cost of range of business processes as well at a really helped there.

IQ 1.2.7: How does DT impact the following? Please discuss each of these: Leadership decision making, financial costs, organisational culture, employees (skills and adoption) and customer (adoption).

While for leadership how it impacts there it can be very good in a sense that they can give a clear possible outcome based on previous data calculations which helps driving a business forward that's it in terms of leadership. Financial costs it always most of it increases profits tremendously as it will always cut out the manual labour which takes most profit and time as well as helping various pain points in the business itself. The organisational culture I guess it will create adoption of technology motivate to learn and do more however it can create employee to use personal activities during business time so I mean moving on digital people would go on Facebook it will go on YouTube they will use the resources for the wrong times using business time basically.

The skills I look at obviously is experience it's always about experience I'm not really too shabby or much worried about certificates it's more the experience and your proof of work that's what I always need to see and how you how you present your work also that's honestly how you present your work and then the customer how it helps it helps the customer trust. I mean you can have in today's world you can have a website and the person can read this whole website and even trust this whole business

also at the same time so if the website doesn't look too shabby a customer won't trust or even if you don't have a website a customer still won't trust because it's almost like a credit oh yeah like a credit to have a website to say that I'm secured.

RQ2: How can SEs efficiently organise, support and enable a DT strategy?

RSQ 2.1: What are the factors influencing the formulation, adoption and implementation of a DT strategy?

IQ 2.1.1: What is your understanding of DT strategy?

Is it the guide describing what steps of business you take to reposition itself in a digital market I think? No, that's absolutely fine there's no right or wrong answer. and tell me okay so if I can just give you a little background. So DT strategy is actually different from digital strategy so digital strategy focus purely on your technology strategy within the organisation where a DT strategy looks at actually all the aspects that I've mentioned on top which is leadership decision making, financial costs, organisational culture, employees skills and adoption so how can you transform all of those things together and once you've actually transformed all of those things within the organisation you've actually accomplished DT strategy. So I think a lot of people get DT strategy confused with digital strategy so it's about that inclusiveness of getting all of those little things together because obviously if your employees don't adapt to your new technology or they do not they're not flexible enough then it's not going to work. If your customers don't accept what you present to them, it's not going to work. Understand if your leadership take long to make decisions it's not going to work. So that is basically what DT strategy is its just whole inclusiveness of where all these little isolated pockets come together and they formulate the DT strategy so that's basically what it is in a nutshell.

IQ 2.1.2: In your opinion, would you say that DT can assist the company to be proactive to new disrupters entering the market? How and why?

The answer is yes I just need to find the reason why and how but also actually you know what I don't think so reason not always other strategy methods would be the same would have to be set in the same place to target a specific disrupter so I mean my like one process can't be the same as a different process for a different category. I can't use the process of a web to a SEO so I think yes and no in the sense that the digital world is continuously improving.

(Researcher) - Okay so if you say yes why?

(P14) - I can't really say why

(Researcher) - No, that's absolutely fine.

IQ 2.1.3: Is there a clear technology strategy in your organisation? If yes, how is it in line with your business strategy?

No ways [laughter] I am sorry to say that I'm being all honest. I have no before I even go on did you write down all these questions did you create these questions?

(Researcher) - Yes, I have I had to create my own questions.

My man I suggest you even make a blog out of this question because honestly reading through this it helped me even. Like I was I'm actually busy making my own one because really it pushed me to make my own one there's a lot of things that I didn't know myself also I just want to say that off topic.

(Researcher) - No, that's absolutely fine that's why I'm glad that my study might just contribute to the market out there.

IQ 2.1.4: Have your company used a DT strategy before? If yes, was it a formal or informal strategy? If no, why not?

I will say informal it's been informal for some time.

IQ 2.1.5: If a DT strategy is not being used in your organisation, is there any consideration to adopt it in future? If yes, why? If no, why not?

Definitely.

(Researcher) - Okay and why would you say so?

Well it would help generally knowing where we're going honestly it would help even after reading this without knowing what are we doing getting us prepared for any disruptors that would come into also and to show our clients to trust us to show what we are doing yes. We have processes we don't have DT set out to the clients also to understand how the full transformation works, so we have processes but not our strategy we don't have so I feel yes is am going to actually do it.

IQ 2.1.6: Should your company decide on using a formal DT strategy, how would you go about the formulation, adopting and implementing it in your organisation?

I would say does this sound like customer relations, documentations and presentations? That's probably it yes because obviously you need to document it and you need to know what you want out of the strategy and what is your goal if you understand so that's absolutely it.

IQ 2.1.7: In your opinion, is there any belief that a formal DT strategy can assist SEs to successful digitally transform? If yes, why? If no, why not?

Yes 100%

(Researcher) - Okay and why would you say so?

I would say so because everything we're doing is really digital. When small companies want to succeed you need to be digital you can't word of mouth doesn't work anymore. So to grow to grow your company and everybody's seeing forward we can't look at one location we can't go to the door anymore it's more of as more of Facebook and social media marketing so that's my belief yes that's the only way it's going to work if you don't have it it's going to be so much stuff.

IQ 2.1.8: What are the major factors in your organisation that influence the choice of adopting and implementing a DT strategy for the business?

Well if it helps with my productivity and it helps with my flow of work it falls into the flow of work it makes it easier and it helps with my customer user experience definitely then.

RSQ 2.2: What are the digital opportunities for SEs to adopt and implement a DT strategy?

IQ 2.2.1: How adoptive and responsive is your company to new technology?

Answered already.

IQ 2.2.2: How beneficial will adopting a DT strategy be to your company?

Yes, definitely um don't need to say why.

(Researcher) - No it's fine as long as you're happy with it, it's fine if you want to add on you can add on

IQ 2.2.3: Was there ever a time that technology you could not meet a customer's need? If yes, why? If no, why not?

Yes, there was a time unfortunately we did not find the proper subcontractor for the job. Must I explained the job as well I don't mind explaining the job. Okay so this customer wanted a automotive or automation robot like Siri so the budget that we were given and the amount and the team that we needed it wasn't working out the person was like literally giving us a Toyota corolla money for a Bugatti which unfortunately it couldn't work if there was probably an easier technology to make as in making it easier to make automation robots by all means then it would be much easier but it's still it's still hard coding itself.

IQ 2.2.4: What are the most important lessons learned regarding these changes that you have made? Please indicate any specific success or failures with regards to digital tech. implementation?

Success and failures well if it comes to success I mean everything is on time everything is on point there's no layback or miscommunication you get things as soon as requirements are finished the only downfall is there's a lot of because of the business we are targeting we have a lot of elderly people so it's it gets time consuming to explain the things to them and also to kind of trust to use these digital technologies as well so is that a nice answer.

(Researcher) - That's fine and tell me what if you learn out of that what have you learned in terms of especially what the older how will you approach them better in the future I know it's time consuming but to explain to them what have you learned from that?

Well I've learned that the fact that the elderly people are willing to learn what's happening gets me excited I mean it's harder to work with someone who thinks they know what to do and to work with someone who doesn't know and wants to learn. I mean the clients when I get in younger generation clients my age that's already tech savvy they already expecting something in their brain or in their head they already expected what they want but once they see the end result it doesn't happen like that where the elderly people it helps more because we're working together I'm explaining why am I doing this and why is it better and then they will also give the input so it's more of sharing where with younger generation it's more of knocking heads [laughter] and that has caused many problems.

IQ 2.2.5: In your opinion, where is your company now in terms of your organisational strategy?

No way no ways I am as far as just the beginning of building a boat.

IQ 2.2.6: Where do you want your organisation to be in terms of DT the future?

To be honest I want to be a gathering a place where people would just feel comfortable to pose the problem and we have people that's on our platform that's working for us or even freelancers people that they want to do short projects just come onto our platform do the problems that is needed from the client or the customer. Just like having a portal of developers where clients can just give their problems and it will be supported more than to have the trust fighting problems with people there's always this miscommunication somehow for some other reason there's always a miscommunication between the client and the developer itself where it's different between a business and a client and then the developer that's where I'm trying to be at I want to be the middleman of explaining on both sides because if understand what the customer wants because I've been there and I understand what the developer wants because I've been there I know how to translate it to give the best product. So being the middle man again just helping clients understand and also to trust because I mean the people that give the Toyota money example for the Bugatti would complain when their website turns out crap because they're paying so much cheap again do you understand so trying to also give quality pushing that out as well.

IQ 2.2.7: How will you get to where you want the company to be in the future?

Okay it is long-term but how would I get there I guess it's constantly building a relationship and being out there. Getting on myself using digital platforms to get myself out there, encouraging people even teaching clients as well what are we doing what are we doing behind the computer. Just so that they could get understanding to see why is the money worth it and to also give the developer a sense of mind that okay the client also knows so for me to do that it's just pushing and learning that's what currently all my social media platforms are doing I'm not promoting money I'm not promoting business itself I'm promoting knowledge um so I think that is the best way to go.

IQ 2.2.8: What were the most influential trends of DT within your industry and what are the expected future trends?

I would say automation, automation is one of my most especially my automation poster I think that is more of people taking so using your online platforms, your social media platforms to post to groups to post to certain categories in the social media platform.

And what expected future trends my expected future trend is to have a personal assistant very loving and an actual how I can explain a bot a robot that can help you on your pc so basically we're building this robot called Scrappy we're currently in process designing him and then you would input things say for example you're doing social media and you're posting an ad for your business it will actually help you improve your ad itself. So let's say use these type of words to gain your customer so we're trying to push into that field.

APPENDIX C15: INTERVIEW TRANSCRIPT OF I15

Please allow me to introduce myself again. My name is Mark Du Plessis and I am currently a Master's Degree student (Student number 203057791) at Cape Peninsula University of Technology, District Six Campus. The reason for my email to you is to seek permission from your company to conduct research that will assist me towards obtaining my Master's Degree.

The topic of my research is digital transformation Strategic Processes within Small and Medium Enterprises in Cape Town South Africa. The purpose of my study is to understand the business processes in implementing a digital transformation strategy within SMEs. My research method for collecting data will be a qualitative research method, through interviews with the participants. I am also looking at the data from objectivist viewpoint and therefore I am more interested in your journey, the journey of your company and how you follow up or adopt new technology to remain competitive in the market. The interview will last no longer than 45 minutes.

I would like to highlight the point that nothing will be done without the permission of your company and that ethically every step of my research will be conducted with your company's and the University's best interest at heart. No information about your company will also be published in my thesis without your permission including your name if you wish to stay anonymous. A draft of the transcribed interview will be emailed to the interviewee for validation to ensure that the information is correct and that nothing is missed or misinterpreted

Thank you again for joining me to do the interview today. I'm going to go straight into the research questions as there is quite a lot of questions that we need to go through.

A. General Information

Question 1: Name of the organisation?

- P15.

Question 2: Size of your organisation?

- It's just me.

Question 3: What is the nature of the business of your enterprise?

- Let me say DM but it's a little bit more than that [Laughter].

Question 4: What industry are you in?

- General I would say I do like a few companies DM so I would say more service based. It's not specific to you it's not specific to a specific industry but more service-based industries.

Question 5: What function/position do you hold in the organisation?

- I'm the owner.

Question 6: Geographical location of your organisation?

- Cape Town

B. Interview Questions

RQ1: What are the business processes required for SEs to digitally transform their business?

RSQ 1.1: What are the benefits and characteristics of DT?

IQ 1.1.1: What does DT mean to you?

I actually type some of your questions I think for me DT is to automate some of your business functions. So yeah I think that's for me like I think that's the first thing is to automate your business functions.

IQ 1.1.2: Do you believe DT is important to SEs? If yes, why? If no, why not?

Definitely. I think to stay relevant and if you look at the future I like future driven thinking so that's the way everything is going our cars is digital, our phones are digital so you need to somehow digitise your business as well because that is the way everything is going.

IQ 1.1.3: What opportunities have your business pursued in DT?

I think a good thing will be to actually like do the case study on one of my clients because that's exactly what I did for them. So I think one of the big things was to automate some of the marketing things that they were doing manually, so like the outreach was manual, the emails, the follow-ups. So it's basically freeing them up from things that they were doing every day.

IQ 1.1.4: What are the benefits of undergoing a DT?

I think to free up your time that is one and the other one is to if you go digital it allows you to actually grow exponentially. So where as you try to just do it yourself I think the biggest thing is it opens up avenues for you to actually grow exponentially.

IQ 1.1.5: How does the company use the following digital technologies? A) Mobile computing (e.g. mobile apps, tablets, smartphones) B) (Big) Data/Analytics (e.g. analysing/leveraging data, digitalisation of physical assets) C) Social media/social networks (e.g. for marketing, contact with customers) D) Internet/networks (e.g. website, e-commerce, cloud computing)

Okay so obviously from the mobile not apps but on the mobile you get your emails and you get alerts and you can check like your CRM, so you pretty much don't have to be in the office. So and yeah and then obviously the social networks are obviously to follow up. I think the data the biggest thing with the data is to see what works and what does not work, so it allows you to see things that you wouldn't normally be able to see. Like for example if you place a newspaper ad you don't know how many people actually looked at that ad, but if you have a website or the with the website and with Google ads and Facebook ads you can actually see this ad cost me this much and I actually managed to get this much of info and like business from that. And then obviously social media is just to connect with customers like you say marketing, but not so much ecommerce.

I think all I would want to say everything is cloud computing because all the apps are in the cloud. I mean I use Gmail, Google sheets, analytics, Zapier for the automation. So everything is in the cloud that's the other benefit it's that they don't need to purchase physical storage everything is somewhere in the cloud.

IQ 1.1.6: When did you start using this technology?

Okay I normally do those type of things from the beginning because I like to see the benefits, but not just benefits I want to see from like today was 2 and tomorrow its 4 so those type of things i use from the beginning. Analytics is for me actually almost the most important thing of everything.

IQ 1.1.7: What was it like before this technology was implemented?

I think before I would almost want to say before it was manual like you say, but almost like in a diary you wrote down what actually, you wrote down who called you and who we need to follow up with now and then maybe in a week's time you go back to day 1 and see oh I didn't do this and didn't do that i didn't do that it's completely manual.

IQ 1.1.8: Why do your company use this technology? (Do your company take advantage of digital technology e.g. increase customer satisfaction, reduce costs)?

I think the first thing is to obviously reduce cost, the cost of technology is cheaper so I mean some of it is free so like Gmail is free so I almost want to say a lot of things that you used to pay for is free now. You can automate things that is also pretty much free and then like you can increase current customer satisfaction, but if you say why do we use it. They are number one most of it is cheap or free. The second reason is it allows us to stay current and yeah there was another one that I wanted to say now the advantages is I think you actually once step ahead of your competitors because they don't embrace not everyone wants to embrace the technology and we will get to the reasons why.

RSQ 1.2: What are the business challenges for SEs to digitally transform?

IQ 1.2.1: What historic/current challenges exist when undergoing a DT?

I think the challenge is the know-how how to use these things but obviously everything has got the learning curve so it's not that simple it's like for me it's it's easy to go to Zapier's website and quickly figure out how to link this with this or I can Google quickly so I come from a technology background so for me it's easy but i think the biggest challenge for companies is that they they don't know how to use these things first they don't know about it they hear about it I mean I do Google ads for example in

Facebook ads I just started but I can see immediately when I look through my timeline is how incorrectly they use it so I think not knowing how to use it correctly to minimize what you waste on it I think that's the other thing is people used to spend a lot of money on websites and stuff because everybody's doing it and that's the cool thing but they're wasting their money and now they say it doesn't work or it's too expensive.

IQ 1.2.2: Which organisational strategies are used to overcome challenges and to create value with DT?

I think online learning makes it a lot easier, so I think to learn about these things in a simple way and then obviously I think a lot of these companies try to make it easy for companies to actually use. I think the more technology evolves the easier it's getting to use. I mean just as an example I'm gonna put in examples so that.

So now like for example Facebook ads is the thing is you have to create the ad yourself, so you need to think how your customer thinks but now you can use other tools like I've seen you can start using like artificial intelligence which will create your ad for you based on a lot of information so I think that where the challenges are you don't know how but in future those challenges might be solved by like artificial intelligence and the information available.

I think the biggest is to start somewhere I think the challenge is to start small and start somewhere and go from there.

IQ 1.2.3: What are the major consideration factors in your organisation that influence the choice of new technology adoption for the business? (e.g. cost, resistance from employees/customers/suppliers etc.)

I think the return on investment if I spend R1 on it I want R2 back type of thing. It's not to waste or to spend money on something that you know it's not going to bring or add value if I can put it like that.

I think that there's two things is old technology is old and new technology is new and sometimes they try to make the new ones like the old ones, but sometimes the old one needs to be completely oh the new one needs to be completely new. I think for me I think a big problem is that we still think like we have the old one we think that's what we want now the new one comes in and we think that the new one must also do what the old one did but it's not always like that. So I think when a new one comes it needs to be better than the old one, it needs to be different and better or the same but better.

IQ 1.2.4: How agile and flexible is your company to follow up on new technology trends?

I think for the company it's easy I think it depends on the person so like if I say our company it's agile and my clients is very agile but they will do what I say because I come from a technology background so if it was just a company and they read something I'm not sure they would actually go for it so quickly like if I would tell them to do it.

IQ 1.2.5: How do you consider DT to be a source of value creation in terms of both customers and your company itself?

Okay I think that the one thing is on DT it can automatically create value so it can create things that you didn't have I think that's the one thing it's like it can create a database of customers or it can tell you information it can give you things automatically and then obviously I think on the customer side and on the company itself is you can see trends within your company what is your customers buying and what are they not buying and then you can use that information or where do they click or so those type of information you can use .

I think there's a little bit more than that I'm not a conspiracy theorist but I also think I mean this is not to do but I think our phones and whatever I think there's so much information already about us in the digital space that our phones kind of knows what it needs to send us.

I also think it's scary, but I think with that it's scary and it's good I think I think there's a lot of things if I again if I look at the value creation I think it adds value to our lives I mean you can now when there's an emergency post it on the WhatsApp group too and immediately send the information to a lot of people so yes it's value I think. The value itself is a lot better or I mean you can be in an accident in your car can tell your emergency responders that you've bumped I mean exactly so those type of things is I mean those type of value.

IQ 1.2.6: How does DT impact organisational performance?

Again I will give both sides I think the one is it will increase the organisation's performance because it opens up new doors and you can do more than your competitors but also in the same thing it might slow down certain individuals in the organisation because suddenly I don't have to perform as well because most of my work is automatic is done automatically.

IQ 1.2.7: How does DT impact the following? Please discuss each of these: Leadership decision making, financial costs, organisational culture, employees (skills and adoption) and customer (adoption).

I think once you transform digitally like leadership decision making gets easier because you have information at hand and it's real information it's not something that somebody's sucked up.

Obviously your financial costs comes down you can have less staff members or you can create or you can automate some of like your whatever your manufacturing for example you can automate certain things with information coming out so you can replace someone and also like certain things you can figure out before they happen basically. So definitely on the financial cost you can make decisions before something happens like before the machine breaks or type of information.

I think the organisational culture I think the big impact there is like you say we think that robots is going to replace our jobs, which is scary I think for me I mean I'm a person it's difficult for me I mean I'm 43 so for me to find a different job or like if I need to find a job now for example it's going to be difficult I mean, but what I do is I continuously adapt and learn new things to keep myself relevant. So I think the organisational culture is going to be maybe soon we need to educate them because they're going to be threatened by DT because the first thing we do is we think they're going to replace us with robots, but somebody will still have to tell and manage those robots. So somebody still needs to manufacture those robots so to a point I think it the organisational culture will go down but it needs to be changed. I think from management perspective of somehow.

I think those two together and then obviously for your customer I mean it makes it easier for them. I mean they will get the relevant information, they get I mean a simple thing like pdf invoices that was a cool thing 10 years ago I mean those type of things it makes it, you can get your customer statement by three clicks so your customer like a bank I can go online and I can do my banking so your customers they're going to more likely shop with you or more likely use your services if they know you are in front of the trends basically.

RQ2: How can SEs efficiently organise, support and enable a DT strategy?

RSQ 2.1: What are the factors influencing the formulation, adoption and implementation of a DT strategy?

IQ 2.1.1: What is your understanding of DT strategy?

Okay for me from a technical, let's do it both ways I think the first thing is to actually take a look at if somebody tells me now I'm here I'm a consultant and I want to help you develop a digital transformation strategy for your business I think for me the first thing is like you say or the first thing you see is this guy wants to help me with my website and he wants to help me with my thing. So I think that is what normal people want to see but I think for me a DT strategy is to look at the whole business and see which parts of the business you can digitise and how that fits in to your larger business vision or strategy. It's where does the business want to be like say in 5 years' time and how can we how can you help with digitising some of your things in order to meet your strategy if I can say.

IQ 2.1.2: In your opinion, would you say that DT can assist the company to be proactive to new disrupters entering the market? How and why?

Every day every day I think that you said I mean I think about it every day, because I mean the thing is for me like if I look at my business is I need to be on top of it. If I can I need to be better than the guy that just decided, he wants to be a digital marketer. So I need to make sure that I study and if I look at the question is how can DT assist me is to be definitely instead of just doing DM is look at like you said look at other things maybe do training or create a platform or networking opportunity or whatever needs to be done apart from what i do daily yes i think that that that is the only way to be proactive and if again to help you on your studies on the other side again I mean DT to be if you want to be they say you either disrupt or you disrupted so when somebody enters the market I think if I look like Uber eats for example Uber eats it was it was first Mr Delivery and then it was Uber eats now suddenly obviously if you want to enter that market you need to be completely different to what they do so it is possible I think but to answer the question a DT can assist the company to proactive definitely and if you have a strategy in place it doesn't really matter who enters the market you just need to follow your strategy.

IQ 2.1.3: Is there a clear technology strategy in your organisation? If yes, how is it in line with your business strategy?

I think it it's informal it's in my head I know where I want to go but I must say it was almost now lately that I've with Covid and with everything that I've actually realized that I need to sit down now and I mean I also read a lot and I think one thing that I don't have is a north star where I'm going. I like the word north star and so I think that is something I need to sit and have a formal strategy to say from six months

one year from now I want to be there. So I think you can say informal but I think it should be a little bit more formal and the reason why I don't have it formally is that I don't think I really had a sit down and I said like listen here clear everything stop everything and sit down and write down where you want to be. I think that's the big reason.

IQ 2.1.4: Have your company used a DT strategy before? If yes, was it a formal or informal strategy? If no, why not?

Most definitely.

IQ 2.1.5: If a DT strategy is not being used in your organisation, is there any consideration to adopt it in future? If yes, why? If no, why not?

I think the first thing is I would like get a few people around instead of just me like get other digital agencies or whatever together and maybe get all of them together because I'm a firm believer that there can be or there's 10 KFC's around me so I can buy from anyone and everybody can buy from anyone so I'm familiar with that you need to I think the first thing will be to get together with other agencies and see if there's not a way that we can collectively go forward instead of trying to be competition to each other is how can we help each other. And I think the formulation will be first to like mastermind if I can call it that or maybe mastermind and I also think mastermind with other people like other industries close to me and then maybe get experts in like yourself or some other people like consultants maybe and then on the implementation side the problem is always the cost is how much will something like this cost me. I think that if I will implement it myself it's easy of course but if I need to get external stakeholders it's going to be if I spend 10 grand will I get 20 grand back. I think that would be the big thing it must not just be something because I need to do, it must be something that's going to add to value. It's like I think we always used to have business plans but now you need to have a digital strategy as well.

IQ 2.1.6: Should your company decide on using a formal DT strategy, how would you go about the formulation, adopting and implementing it in your organisation?

Absolutely let's use a simple example is I have a digital agency for example but I don't do like I'm just gonna use an example again I didn't do web designer, SEO and all those things and content writing and everything. If you can immediately outsource all those things to different people so you can have like staff on demand so you can immediately have a massive business and you can branch out to whatever you want if you transform digitally. See if I say I want to be in one years or two years' time I want to do x y and z and z and z and z I can say I don't have to do it myself I can I don't even have to employ someone I can find freelancers or subcontractors so I can immediately sell something that I didn't even have before I don't have to worry about it and I think that's a big thing with DT I think if I look at the restaurant a big or a good example for me now is there's a and I think it's brilliant is this restaurant by us but it's a brick and mortar restaurant but they were on Uber eats it's a Greek restaurant but they obviously make money but now they adopt it by having a hamburger place, a chicken place and another two three other pizza and three other things within the restaurant but it's only available on Uber eats. So they have like five different offerings so immediately came with the Uber app they've transferred they've got one location but suddenly there's five restaurants that you can order from but all the food comes out of one restaurant and he didn't do anything. He already had the venue his kitchen he's got everything so you place your order on Uber eats he gets a little receipt he makes it the Uber eats guy comes to get it and it he doesn't need to employ maybe one or two more staff that cooks but he doesn't need waiters he doesn't need anything.

And that was definitely saving costs and we all know staff cost is your biggest expense in your organisation. That is how a business will transform is by leverage that I think the only way if they don't use digital stuff that's the only way to transform I think

IQ 2.1.7: In your opinion, is there any belief that a formal DT strategy can assist SEs to successful digitally transform? If yes, why? If no, why not?

I think if I had to get someone the cost I think that would be a major influence is the cost how much it's going to cost me and will it give me a good return on my investment. I think that that is the two things.

IQ 2.1.8: What are the major factors in your organisation that influence the choice of adopting and implementing a DT strategy for the business?

I mean I every day I check for new things and every day. I see something new I think to adopt all of them it's a bit too much but I see how they fit into something and then or maybe sometimes one or two or one new thing replaces two or three other things that you use. So I think that that is the other thing is I try to streamline I think I can stop one thing today and use some like I used to do Google sheets and then I learned about air table and I think air table is cool it's you pay for it but yes it's got cooler features.

I think the one that you use that's the most user friendly and the best to use I think that is at the end of the day the easiest of use and obviously cost as well but the ease of use.

RSQ 2.2: What are the digital opportunities for SEs to adopt and implement a DT strategy?

IQ 2.2.1: How adoptive and responsive is your company to new technology?

NB* This question was answered.

IQ 2.2.2: How beneficial will adopting a DT strategy be to your company?

I think for me it will be beneficially because I don't really have a DT strategy at the moment and I think for any company it will be beneficial. So like I help other companies with digital transformation but like yeah I think it will definitely be beneficial because you can see up here if I have a good plan in place that I don't it will actually help me plan for and I think that's the only way to grow yeah.

IQ 2.2.3: Was there ever a time that technology you could not meet a customer's need? If yes, why? If no, why not?

I think yes to a point if I'm just looking at like a previous client that wanted something and they got an app for it, but I mean who's gonna download the app nobody's gonna download your app so you wasted money on having an app developer without really thinking why did you want the app. You could have I think that is one like it was not me but I think that that is the one thing and but I think most of the time if I look 5 years back technology kind of failed some quite more often than not in the case of you do this but then suddenly this so but now I think with so many start-ups and technology and things out there it's easy to meet needs but I think I think now it's okay I would say. Now I would say no now but and then if I say meet the need I think one big thing that I come to every time is the need, the technology will meet the need but the cost will be too much.

Another thing is I was looking at online accounting software a while back and I looked at a few ones because I kind of know some of them and so on and that one of them actually met my need to what I wanted, a simple thing where I can quickly invoice and quickly easy do the books type of thing and not one of them actually could meet the need that I wanted so I think that's a that's a good example. There's a lot of accounting software online but none of them actually and the other thing was I wanted to manage three or four five companies on them but they were so the more companies I had the more expensive they got so I thought okay it should be a simple one where you pay one small fee and you can have unlimited companies for example.

IQ 2.2.4: What are the most important lessons learned regarding these changes that you have made? Please indicate any specific success or failures with regards to digital tech. implementation?

I think another one is like what you learn is like spending money on online advertising for example is that I mean if I don't really have. Okay let's use a good example I think one lesson that I really learned is for I have one client and I did some of the work for them but not everything like they still had a web designer and they did some of the stuff themselves so the only thing I did was drive traffic to the to a landing page that I created on their website and something else and then what happened was they messed up the website and a lot of other things changed and they lost their SEO rankings and everything nothing to do with me but I think that was obviously a big failure because I should have maybe told them from my side is what they need to do but we weren't that close on it wasn't my job really because they trusted all the other service providers. I think then obviously afterwards now I do everything for them but I think that was maybe a failure is that the digital stuff if they if they maintained it the proper way and everything was sinking like clockwork they and monitored like you say monitored with analytics or anything it wouldn't be that. So I think that was a failure is not to make sure that everything is monitored and carried towards where the company wants to be is to have one person doing this and one person doing this and not have one strategy for everything.

IQ 2.2.5: In your opinion, where is your company now in terms of your organisational strategy?

I think if I say between 1 and 100 percent I would say by 25 it's like you do so many things but you don't really sit down and think what is or where do I want to be so I would say in the beginning stage is almost.

IQ 2.2.6: Where do you want your organisation to be in terms of DT the future?

I think it will be to have most of the things automated. To have I have this big dream of everything being clockwork and on a dashboard so you just look at that dashboard every day and make sure that all these little things and on the dashboard it must be either green red or amber. If it's green, it's going if it's red

you need to look at it and if it's amber it's like maybe you need to give some. I think that on the DT side is maybe I have like a scorecard like for your accounting or your hiring process or for me myself because I'm small I don't have all these things but I think still I mean to have kind of a dashboard or things I think that needs that I think in the future I would like to have something like that you. I think the big thing is to be automated, automate quite a lot of the business processes, so that I don't have to be in the business so much and then also to I almost want to say run by its own and make adjustments accordingly if it's possible and I'm sure it will be possible eventually if you could set things up so that it kind of runs automatically and then adjust yeah I think that's my answer.

IQ 2.2.7: How will you get to where you want the company to be in the future?

I think for me it's different because I've got a technical background, so what I will do is I will study these things and see how I can set it up so I think for me a technique from a technical perspective is obviously to sit down and see what you can automate and then obviously figure out how to automate those things.

IQ 2.2.8: What were the most influential trends of DT within your industry and what are the expected future trends?

I think the one major influential trend is the ease of use of the tools that's available to transform your business my company and then I think the future trends will be I think a lot of artificial intelligence like you said machine learning and automation I think we I think that's the future and I think the most different influential trends I would say maybe I think online apps clouds I mean cloud apps if I can say cloud apps because I mean most of the influential trends is moving away from installing software on your pc to just click the button and you've got immediate taxes most of the stuff is free on.

APPENDIX D: EDITING CERTIFICATE

15 June 2022

MARK DAVID DU PLESSIS

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RE: CERTIFICATE - EDITING OF MASTER'S THESIS

I, the undersigned, herewith certify that the editing of the Master's thesis of Mark David du Plessis, "*DIGITAL TRANSFORMATION STRATEGIC PROCESSES FOR SMALL AND MEDIUM ENTERPRISES IN CAPE TOWN, SOUTH AFRICA*", has been conducted and concluded.

The finalised thesis was submitted to Mr du Plessis and cc'd to Prof Andre de la Harpe on 15 June 2022.

Sincerely



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South African Translators' Institute (SATI)