Gordon Institute of Business Science
University of Pretoria

Increasing the success of digital transformation through increased accountability

By

Varun Rao

Student number: 17386544

A research project submitted to the Gordon Institute of Business Science, University of Pretoria, in partial fulfilment of the requirements for the degree of Master of Business Administration.

7 November 2018

Abstract

The purpose of the research is to identify if the digital transformation of an organisation is impacted by accountability. In doing so the research aims to understand the factors of accountability and the factors that contribute to the success of digital transformation. Considering that not much research has been conducted on the digital transformation in the context of accountability, an exploratory and qualitative approach was used in this research. The research found that accountability does have an impact on the success of the digital transformation and central to the finding was the need for Alignment. Additionally, it was found that the adoption of an overarching business strategy, clarity of objectives, clarity of role of an individual and the creation of a dedicated hub with appropriate accountability towards the digital transformation of the organisation.

Keywords

Declaration

I declare that this research project is my own work. It is submitted in partial fulfilment of the requirements for the degree of Master of Business Administration at the Gordon Institute of Business Science, University of Pretoria. It has not been submitted before for any degree or examination in any other University. I further declare that I have obtained the necessary authorisation and consent to carry out this research.

_____

Varun Rao

7 November 2018

Contents

LIST OF TABLES

LIST OF FIGURES

Chapter 1: Introduction to the Research Problem

1.1 Research Problem

Organisations run the risk of being left behind if they do not integrate technology and understand the need to digitally transform the business (Sebastian et al., 2017). According to Kane, Palmer, Philips Nguyen, Kiron, and Buckley (2015), businesses that have a lower maturity in digital adoption tend to focus on technology as the answer to resolving business issues. Kane et al. (2015) further state that transformation is driven by a digital strategy, not by implementing and adopting technology alone. This in part, is due to the failure to change not only the processes but also the culture of the organisation along with the technology in order to transform the organisation. Bharadwaj, El Sawy, Pavlou, and Venkatraman (2013) support this by stating that most organisations implement an information technology (IT) strategy that is directed by the business strategy. Although there is some alignment of the IT strategy with the business strategy, most businesses fail to recognise the need to transform business strategies, services, products, capabilities and processes. Hence, the need for a digital transformation strategy, named as the "Digital business strategy" that seeks to meld both the business and IT strategies (Bharadwaj et al., 2013, p. 472). This is further supported by Hess, Benlian, Matt, and Wiesböck (2016) who discuss that a digital transformation strategy is required in assisting managers through the process of transformation by leveraging and integrating technologies. The digital transformation strategy has a larger impact on the organisation and its internal and external stakeholders than an IT strategy would on its own. Hence, Hess et al. (2016) state that a business requires a standalone strategy to digitally transform the organisation.

Hess et al. (2016) state that due to digital transformation, business models are often required to change in their entirety. The ability of a business to exploit and integrate digital technologies is proving to be one of the largest issues businesses face in the digital transformation process. According to Hess et al. (2016), digital transformation is one of the highest priorities amongst leaders. Over 90% of these business leaders have high expectations of digital technologies and IT to contribute to their strategy over the next decade. Hess et al. (2016) state that for the transformation of businesses to be successful, the ability of a business to be agile is a necessary condition. Although this may be a requirement in some cases, the validity of the necessary condition is questioned against every transformation scenario. Lucas and Goh (2009) having studied the impact of technological disruptions in business, support the need for agility by stating

that the inability of a business to change its core rigidities and management propensities when faced with a potential technological disruption could result in failed digital transformations of businesses. The inability of management to change the business culture and core rigidities can lead to the eventual failure of an organisation to transform (Lucas & Goh, 2009). This, in turn, can lead to ambiguity of the allocation of resources and priorities by business leaders towards the digital transformation strategy or the existing strategy that focuses on targets and operational activities. Priority is given to the latter due to current reward systems, culture, leadership and structures that result in a lack of accountability from staff towards digital transformation (Fitzgerald, Kruschwitz, Bonnet, & Welch, 2013; Pearson & Sutherland, 2017). Ambiguity according to Laird, Harvey, and Lancaster (2015) can be alleviated by adopting formal accountability systems. Pearson and Sutherland (2017) warn against a simplified view of accountability and that in reality it is far more interdependent and complex and a more holistic approach that includes both informal and formal approaches should be taken. The importance of leaders and culture that drives accountability along with the informal accountability factors needs to be addressed in order to engrain accountability as a factor to drive organisational efforts aligned with the strategy.

Whilst there has been significant research in digital transformation and accountability in isolation, there has not been much research on understanding if increased levels of accountability within individuals of an organisation can increase the success of digitally transformation.

1.2 Purpose of Research

Business spends a large amount of time and effort to digitally transform the organisation and in most instances, expects the digital strategy to be driven by their IT departments. In order to digitally transform the business, the organisations need to fundamentally find new forms of coordination within the firm that encompasses the leaders, strategy and culture (Bharadwaj et al., 2013; Kane et al., 2015). In the context of the larger theme of this research, the identification of factors of accountability that may contribute to the success of the digital transformation of an organisation is based on the key factors identified by Kane et al. (2015) and Pearson & Sutherland (2017) that have a successful effect on the digital strategy to transform an organisation. This will be explored to get a deeper understanding of the factors that may be affected by the lack of accountability in the organisation with respect to the digital transformation that drives competitive change (Fitzgerald et al., 2013).

.

There has been little research conducted to understand the role accountability plays in the success of a digital transformation of an organisation. The research aims to contribute to the body of literature of the accountability theory by gaining a deeper understanding of formal and informal systems of accountability as researched by Pearson and Sutherland (2017) and if the formal systems need to be supported by informal systems in order to increase the level of accountability and drive the success of digital transformation. Accountability theory traditionally focussed on behaviour and ethics (Frink & Klimoski, 2004). However, the theory of accountability, according to Mero, Guidice, and Werner (2014) assists in understanding the role an individual's behaviour and performance play in driving accountability. Accountability theory initially viewed through the lens of agency theory focused on the contractual relationship that is of a contractual nature that exists and the alignment of the agent to that of the principal (Pearson & Sutherland, 2017).

Chapter 2: Literature Review

2.1 Introduction

The transformation of businesses has been gaining momentum due largely to deriving value and competitiveness from strategic information technology (IT) investments that require an IT-enabled transformation of the business (Gregory, Keil, Muntermann, & Mähring, 2015). The complexity of managing and balancing efforts required towards the short-term operational goals and the potential long-term goals of transforming the organisation were discussed by (Gregory et al., 2015). The coordination of activities and prioritisation assist in aligning the IT strategy to the strategic objectives of the organisation. The lack of a coherent digital business strategy, however, leads to organisations having multiple priorities and signals a lower level of digital maturity (Kane et al., 2015).

The need for organisations to utilise digital transformation was substantiated by Bharadwaj et al. (2013) who stated that the infrastructure of the business itself has increasingly become digital with interconnections existing between the services, products and processes of the business. Kane et al. (2015) however argued that digital transformation is about the integration of technology to transform the business and the fundamental way in which the business works, rather than about the technology itself. Strategy, culture and leadership were identified by Kane et al. (2015) as critical to the digital strategy of an organisation which are required to transform the business. In order to digitally transform the organisation, Kane et al. (2015) discussed the need for leaders in the organisation to develop a risk-taking culture and less digitally mature organisations tend to be less risk-averse. Andriole (2017) stated that executives are reluctant to digitally transform the organisation as they view the effort required to transform the organisation as risky. Risk averseness, according to Ieraci (2007) could lead to a shift from a behaviour that works on trust to one that works on reporting and hence risk averseness creates the shift from responsibility to accountability.

Considering the potential impact of accountability on the risk-taking culture required for digital transformation, research on accountability was conducted in order to get a deeper understanding of the factors that influence accountability in an organisation. Although Pearson and Sutherland (2017) discussed the importance of formal and informal accountability as well as the five key factors that drive accountability, research was

conducted to get an understanding of the potential impact formal and informal accountability and the factors of accountability to have on the outcome of the digital transformation process.

2.2 Digital Transformation

Organisations according to Bharadwaj et al. (2013) adopt a traditional approach to the occurrences of digital shifts in their industry by handling these shifts with a fragmented field of marketing, operations, Information technology. Digital technologies according to Bharadwaj et al. (2013) shape the infrastructure of the business and have an impact on the coordination of activities within the organisation and as well as across organisations. Transformation according to L. Li, Su, Zhang, and Mao (2017) requires changes in the business models, processes, organisational strategy and its culture. This shaping of the organisation due to the adoption of digital has given rise to the concept of digital transformation (Bharadwaj et al., 2013). Digital transformation is defined as "use of new digital technologies (social media, mobile, analytics or embedded devices) to enable major business improvements (such as enhancing customer experience, streamlining operations or creating new business models)" (Fitzgerald et al., 2013, p. 2). Adding further depth to the definition of digital transformation, "Digital transformation is concerned with the changes 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" (Hess et al., 2016, p. 124).

Automation of processes when digitally transforming the organisation does not necessarily mean replacing employees in the organisation. New technologies that are adopted can assist in augmenting the activities of employees allowing them to perform other tasks of more value (Westerman & Bonnet, 2015). (L. Li et al., 2017) had a similar view of the digital transformation of businesses which is less focussed on automation by stating that the transformation of the organisation requires a fundamental shift in not only the processes but also the procedures and the capabilities. Organisations that are more mature in the digital transformation process require an engagement of the talent of employees across the organisation, creation of new business models to drive value and to transform the business processes (Kane et al., 2015).

Majchrzak, Markus, and Wareham (2016) discussed the theory of technology affordances and constraints which deals with the relationship between technology and the purpose or intention in which the technology is to be used by the user. Hence the focus should be not on the technology but on the capability and objective of the user to

leverage the technology to derive value for the organisation (Majchrzak et al., 2016). According to Dr John Halamka as discussed by Kane (2015), senior executives do not necessarily know what technological requirements are required for the digital transformation of the organisation. In order to digitally transform the organisation, the senior executives do however need to know how to leverage the technology, either to meet or define new business objectives (Kane, 2015). This view of Dr John Halamka's was further supported in a separate research conducted by Kane et al. (2015) who stated that the scope and objectives are the power of strategy to digitally transform the organisation.

Technology is used with varying consequences which could either have a positive or negative impact on the organisation (Majchrzak et al., 2016). When companies have a heavy reliance on technology alone, they rarely get the results that exceed expectations, unless it is leveraged in a way which creates value across the organisation and finds new ways of doing business (Fitzgerald et al., 2013). Companies that are able to create value by innovating using digital technology do so by transforming their organisations using technologies such as the cloud, analytics, social media and mobile devices (Westerman & Bonnet, 2015). Organisations that excel at digital technologies tend to have an opportunistic view of digital transformation and have the capability and a clear vision (Westerman & Bonnet, 2015). Digital transformation does not necessarily require drastic changes from the old to the new when the organisation transitions to the new digital technology.

Top Barriers by Maturity Stage	Early 26%	Developing 45%	Maturing 29%
	1. Lack of strategy	1. Too many priorities	1. Too many priorities
	2. Too many priorities	2. Lack of strategy	2. Security concerns
	3. Lack of management understanding	3. Insufficient tech skills	3. Insufficient tech skills
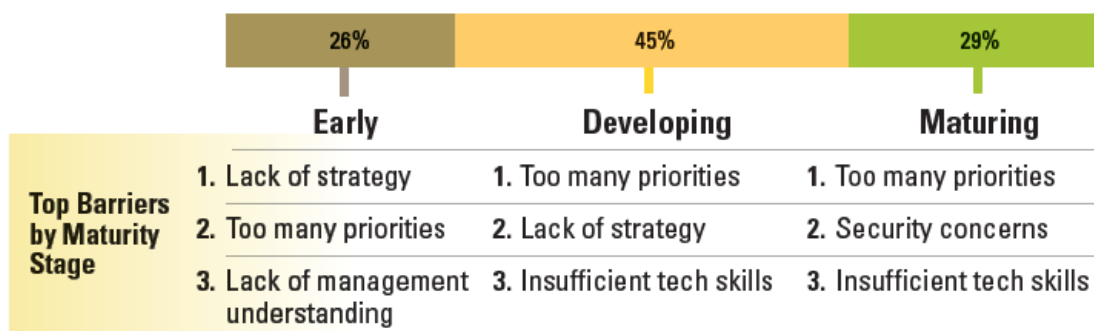
Figure 1: Top barriers by maturity stage (Kane et al., 2015, p. 5)

Kane et al. (2015) made use of a classification of the stage of digital maturity of organisations into three main categories of early, developing and maturing, see Figure 1. The barriers experienced in the digital transformation of the organisation at the various stages of maturity were highlighted in Figure 1. The classification of maturity stages was also used by (Fitzgerald et al., 2013) in their research on organisations who embrace

digital technology to transform. Mature organisations focus on driving the digital strategy (Kane et al., 2015). The importance of a digital transformation strategy was supported by Matt, Hess, and Benlian (2015) who stated the strategy is fundamental to coordinate, prioritise and implement. Matt et al. (2015) further discussed the broad scope of digital transformation strategies which works across the breadth of operational, functional and corporate strategies and are not subordinate but the rather the overarching strategy that the organisation should follow.

Development of skills and capability is a focus of mature organisations in order to achieve the strategy (Kane et al., 2015). The need to develop particular capabilities is substantiated by (Wulf, Mettler, & Brenner, 2017) which they deem a requirement for transformation. Risk-taking becomes part of the culture of a digitally mature organisation (Kane et al., 2015). Westerman, Calméjane, Bonnet, Ferraris, and McAfee (2011) however discussed the averseness of organisations to transform that are not experiencing issues as they may see it more beneficial to avoid the change and the risk associated with transformation.

The digital transformation model developed by Kane et al. (2015), identified the three key factors that have an effect on the digital strategy to transform an organisation; namely:

- Strategy
- Culture
- Leadership

These three factors are explored further in order to get a better understanding of the current knowledge on the effect these factors have on driving the success of the digital transformation of an organisation.

2.2.1 Strategy

Matt et al. (2015) viewed IT strategies as one that focuses on the ability of the organisation to carry out its business functions which are largely operationally focussed. This according to Matt et al. (2015) limits the innovative development of the business itself and focuses on the implementation of technology rather than the transformation of products, structures and processes. Bharadwaj et al. (2013) discussed that traditionally an organisations' business strategy would direct the IT strategy. The IT strategy was viewed largely at a level that was functional in nature and one that would have to align itself with the larger business strategy (Bharadwaj et al., 2013).

This alignment of IT strategies to business strategies is referred to as intellectual alignment, as defined in alignments research, which focused on the impact of alignment to improved performance (Gerow, Thatcher, & Grover, 2015). Kane, Palmer, Phillips, Kiron, and Buckley (2016) provided a more descriptive concept of alignment by referring to digital congruence, whereby various elements of an organisation such as the culture, structure, people and tasks are aligned not only to each other but also the business strategy, refer to Figure 3. Matt et al. (2015) see the alignment view of the various types of business strategies as critical to the organisation. Alignment of strategies according to Gerow, Grover, Thatcher, and Roth (2014) has been amongst the main areas of concern for senior management as it was found that the impact of strategic alignment between business and IT leads to improved levels of performance by increasing profits and generating a sustainable competitive advantage for the organisation when they effectively leverage IT. Matt et al. (2015) however cautioned that aligning the strategies has proven to be difficult in practice and according to Gerow et al. (2015) alignment has sometimes resulted in no improvement in performance due to its impact on the agility of the organisation to respond to change.

Digital technologies enable the design of services and products with IT infrastructure deeply embedded within them (Bharadwaj et al., 2013). These digital technologies can be leveraged to support the business strategy (W. Li, Liu, Belitski, Ghobadian, & O'Regan, 2016). Traditionally digital technologies were limited to the individual division or function, this, however, is no more the case as they are now instead applicable across the entire organisation (Kane et al., 2016). These deeply rooted digital resources impact cross-functional areas within the organisation across the marketing, supply chain, procurement and operational divisions (Bharadwaj et al., 2013). Hence resulting in a shift from a traditional silo approach to strategy formulation to a broader cross-functional and cross-boundary approach.

The term "digital business strategy" is used due to the need for an overarching strategy for the organisation that is an amalgamation of both the IT and business strategy, which creates value by leveraging the digital resources (Bharadwaj et al., 2013, p. 472). Referring to Figure 2, Matt et al. (2015) depicted how digital transformation strategies span across operational, functional as well as all corporate strategies, hence providing a broader scope of digital transformation strategies.
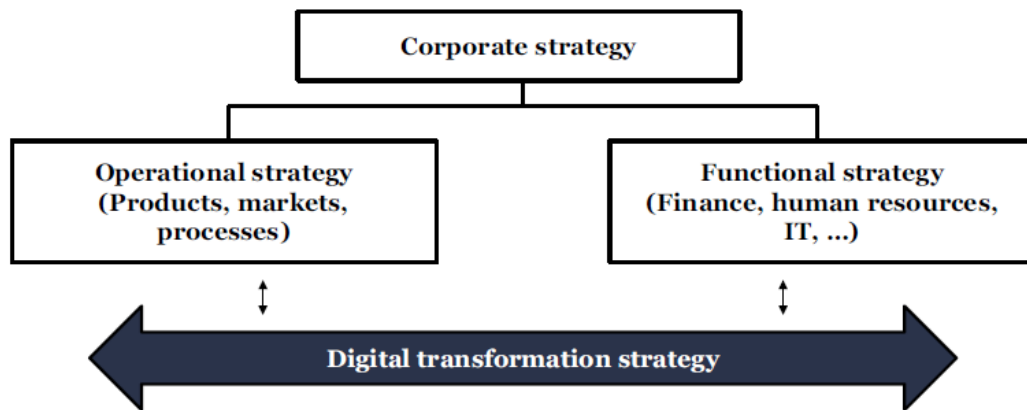
Figure 2: Relation between digital transformation strategy and other corporate strategies (Matt et al., 2015, p. 340)

Bharadwaj et al. (2013) stated that most organisations are starting to view IT strategy as more than just a strategy that delivers technology, but rather one that leverages digital resource in the activities of all their functional areas across the organisation. Matt et al. (2015) stated that when considering digital transformation, the functional level strategies are able to transform into an organisation strategy that utilises the digital resources. The digital resources serve as a connector between all the functional and process related strategies which are encompassed by the larger digital business strategy (Bharadwaj et al., 2013). The digital business strategy, however, is wider and more deeply embedded strategy than strategies that are functional in nature (Bharadwaj et al., 2013). In this digital era, the digital business strategy should essentially become the business strategy rather than having a separate business strategy and digital business strategy (Bharadwaj et al., 2013). In order to drive transformation, Kane et al. (2015) discussed the need for a clear strategy by stating that companies that are defined as digitally mature had a higher tendency to have a clear strategy when compared to other less digitally mature companies. It was found that it was essential for a clear and broad strategy to be communicated by the leaders of the organisations (Yeow, Soh, & Hansen, 2018).

The infrastructure of businesses has transformed into a digital medium which has created links between the services and processes of the organisations where none may have existed before (Bharadwaj et al., 2013). The need to merge the business interests along with the IT interests to drive competitiveness is highlighted by Gregory et al. (2015). This can drive new value and performance to deliver a competitive advantage (Bharadwaj et al., 2013). Digital technologies are used by maturing companies in order to drive business transformation from the digital strategy (Kane et al., 2015). Businesses according to (Kane et al., 2015) are transformed due to the digital strategy which leads

to the digital maturity of the organisation. Digital transformation according to Nadeem, Abedin, Cerpa, and Chew (2018) is when the digital business strategy is put into action. Scope, scale and speed are among the drivers of performance of the digital business strategy (Bharadwaj et al., 2013).

The "scope of digital business strategy" theme articulates the level of integration between the IT strategy and business strategy and the ability of the strategy to extend and digitise current products and services to create core competencies to improve reach in the market (Bharadwaj et al., 2013). Bharadwaj et al. (2013) discussed the need to develop business processes around the IT infrastructure to ensure the digital agility of the organisation. Kane et al. (2015) supported the importance of scope by stating that the scope and objectives are the highest power of a digital strategy.

The "scale of digital business strategy" discusses the agility of the firm to scale up or down in order to improve the capability of the organisation and the ability to leverage the integration of multiple platforms that take advantage of the data and information (Bharadwaj et al., 2013). Kane et al. (2015) stated that maturing digital organisations tend to focus on skills development in order to leverage the trends in the digital space. The skills development assists the organisation in the developing the capability to adapt and hence respond to change (Kane et al., 2015). Kane et al. (2015) further pointed out the consideration of scale and capabilities by stating that companies focus on technologies alone without understanding the impact of capabilities in technological advances. Majchrzak, Markus, and Wareham (2016) further discussed that technology can be used in different ways depending on the users intent on utilising the technology and capability. Grover and Kohli (2013) however warned against losing competitiveness in the long run due to organisations providing too much visibility by digitising and building digital capability for a short-term competitive advantage.

Hence the "Speed of digital business strategy" as discussed by Bharadwaj et al. (2013) speaks to the organisation's ability to improve the speed at which decisions are made in both an operational or strategic level and the ability to alter the speed of development of new products if required (Majchrzak et al., 2016). Fitzgerald et al. (2013) supported the need for speed by articulating one of the biggest factors that hamper digital transformation being a lack of urgency. The digital transformation of organisations requires a clear strategy and culture which is driven by the leaders (Kane et al., 2015).

2.2.2 Culture

Adopting digital requires the development of digital capabilities and ensuring alignment between the organisation's activities, employees, culture and structure (Kane et al., 2016). Organisations undergoing digital transformation are faced with obstacles and find it hard to digitally transform themselves as they have a particular approach to conducting their activities and the transformation is a threat to the long-established practices of management (McConnell, 2015). When an organisation is facing a new innovation, the culture of the organisation impacts what it is able to do as well as what it is unable to do (Lucas & Goh, 2009). In order to drive successful projects that are innovative in nature, organisations need to create and foster a culture that supports innovation (Karimi & Walter, 2015). Additionally, W. Li et al. (2016) discussed the need for an agile culture that requires constant communication, teamwork, continuous improvement and loosely defined roles. The organisation cognition is shaped by the culture and plays a significant role in the transformation of organisations that are enabled by technology (Lucas & Goh, 2009). The work culture of an organisation can either augment or eradicate the obstacles they face (McConnell, 2015). (Fitzgerald et al., 2013) identified six cultural barriers to digital transformation, namely:

- Competing priorities
- Lack of familiarity with digital
- Resistance to new approaches
- Digital Transformation threatens current power structures
- Internal politics
- Risk aversion

Digital business strategies are only able to realise marginal changes compared to expectation due to the inertia of the organisation's culture, rigidities within the organisation (Mithas, Tafti, & Mitchell, 2013). An organisation that is facing a technological disruption and has a culture that has a preference for hierarchies and preserving the existing conditions is resistant to the change (Lucas & Goh, 2009). L. Li et al. (2017) highlighted the cultivation of the right culture as a significant factor that can impact the transformation of the organisation.

Kane et al. (2015) highlighted that the companies that are perceived to be more digitally mature tend to have a collaborative culture that fosters digital transformation and is generally less risk-averse. Digitally mature organisations have a culture that fosters a larger risk appetite, expedited experimentation, investment in talent, recruitment and

development of soft skills for leaders, in common (Kane et al., 2016). Changing the culture of an organisation can prove to be challenging and executives need to make a concerted effort to inculcate the culture that is less risk-averse (Kane et al., 2015). Risk aversion can affect not only the employees but also the executive which carries with it an inherent risk of not being as engaged in order to avoid failure (Kane et al., 2015). By adopting digital technologies organisations were able to understand the risks and develop processes and social business tools which aided in transforming the culture of innovation and assist in product development (Fitzgerald et al., 2013). Failure according to Kane et al. (2015) should be embraced to drive the success of digital transformation efforts. Experimentation and a culture of innovation assists organisations in making decisions, prioritising and rethinking how they currently operate (McConnell, 2015). The issue of competing priorities is supported by Kane et al. (2016) who stated that prioritisation can lead to the effort being pulled in a different direction. The concept of social learning theory can be identified in the discussion by Kane et al. (2015) about improving engagement of employees who are not actively involved by leveraging of employees who are not risk-averse and tend to display characteristics of being an early adopter. Social learning theory describes how people are able to observe the information and behaviours of others and in that process, are able to learn themselves (Bandura, 1977; Chen, Lu, & Wang, 2017). In this manner, the individuals are able to imitate others and decide what acceptable and unacceptable behaviours are (Chen et al., 2017).

Providing employees with a purpose enables them to work towards a common goal and reduces resistance due to politics (McConnell, 2015). The need for a collaborative culture in idea generation and innovation were articulated by Kane et al. (2015) which is given further substance by W. Li et al. (2016) who stated that a need to think collectively exists through a digital entrepreneurship culture in order to resolve issues. This collaborative and collective approach impacts the digital maturity of the organisation as digitally mature organisations are able to leverage cross-functional teams to digitally transform the organisations with more success than organisations that are less digitally mature (Kane et al., 2015).

Kane et al. (2015) questioned if it was culture drives digital transformation or if digital transformation acts a precedent for changing the culture of the organisations. Arguments were made towards both propositions, however, no conclusive argument was made in favour of one or the other. What was brought up as a possibility is that both culture and technology are inextricably linked (Kane et al., 2015). The importance of agility in changing the mindset of employees through culture and the role leadership plays in

building the agile culture when the organisation and the digital environment is undergoing change is stressed by (W. Li et al., 2016). The importance of a culture that is nurtured by the leaders of the organisation was further substantiated by Kane et al. (2015).

2.2.3 Leadership

A significant issue facing leadership is the digital business strategy which results in a fundamental shift in the life of the leaders (Bennis, 2013). According to Roepke, Agarwal, and Ferratt (2000), IT is increasingly acting as a strategic enabler requiring IT leaders to recognise that success is driven by people and not the technology alone. Adapting David Nadler and Michael Tushman's organisational congruence model, the term digital congruence was developed by Kane et al. (2016), which refers to digital adoption by an organisation which requires the development of digital capabilities and ensuring alignment between the organisations activities, employees, culture and structure was identified as essential to the digital transformation process. Referring to Figure 3, the digital congruence model should be used by leaders to eradicate issues faced in the constantly changing digital environment (Kane et al., 2016).

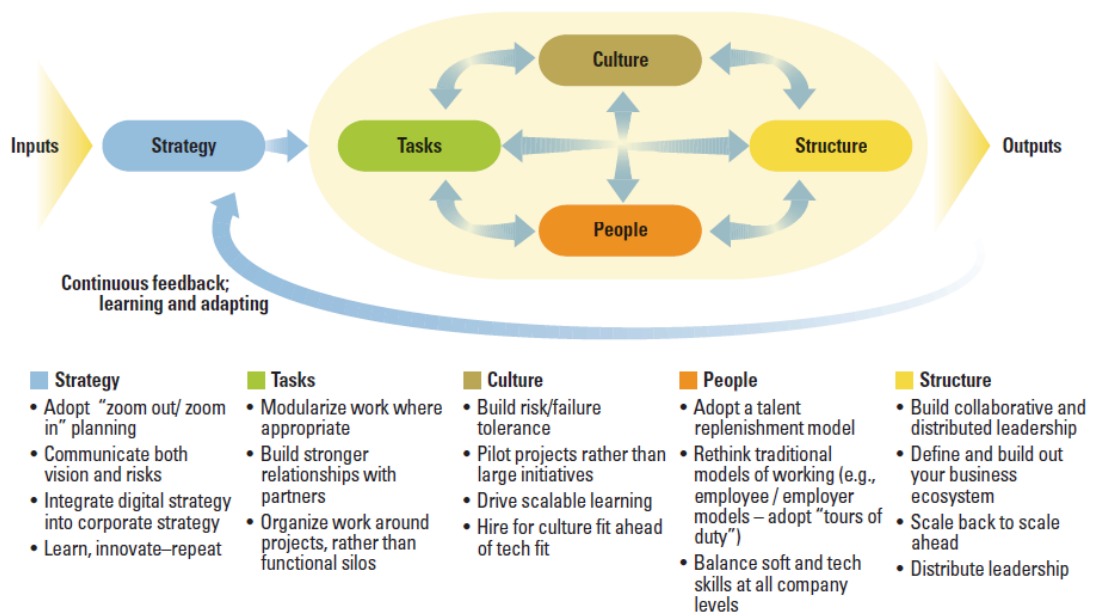*Figure 3: Digital congruence model (Kane et al., 2016, p.14)*

Management, however, is met by obstacles such as resource constraints, limited talent and prioritisation issues resulting in a silo approach to the digital transformation activities (Kane et al., 2016). When risk-averse managers are faced with bureaucracy in an organisation they are do not respond favourably when the organisation is facing a

potential disruption from technology (Lucas & Goh, 2009). Hence, requiring leaders to have skills for complexity management, inspiration and development of digital cultures in environments that are changing frequently (Kane et al., 2016). The capacity of leaders to be adaptive, essentially resilient and open to innovation is important for leadership which is augmented in an environment that is digital. (Bennis, 2013).

In order to digitally transform an organisation, companies who are more digitally mature tend to have leaders who are adept in identifying trends and understanding technology in driving the digital strategy (Kane et al., 2015). (Roepke et al., 2000) discussed the need for organisations to have leaders who recognise that it is the people and not technology that can cause failure and secondly that the leaders need to develop the people to assist business in developing the relevant competencies for transformation. Hence the need to be more digitally fluent with a focus on increasing the digital fluency of executives and staff, requiring executives to possess at least a sufficient level of understanding of technology (Kane et al., 2015). Digitally knowledgeable leaders tend to see an improvement in operations and relations with customers (Fitzgerald et al., 2013). Leaders run the risk of being left behind if they do not understand the digital world (Bennis, 2013).

The ability of the executive in developing a strategy was agreed to play a large part of the job along with the ability to have organisational influence and having a good knowledge of the business (Kane et al., 2015). Technical skills of leaders were identified as not important to drive digital transformation when compared to the skills of leaders such as a vision that is transformative, thinking forward, being open to change and general leading and collaboration skills (Kane et al., 2016). The ability of the leader to identify talent and people who can assist the organisation was identified as a skill the leader should have (Kane et al., 2015; Roepke et al., 2000). The level of digital maturity impacts the retention of staff with organisations that are less mature being more susceptible to loss of employees (Kane et al., 2016). The retention of talent occurs in organisations where opportunities are provided to senior management along with the necessary resources (Kane et al., 2016). Incidentally, the provision of resources and opportunities to develop the employee's digital ability results in the attraction of new talent (Kane et al., 2016).

Fitzgerald et al. (2013) stated that the vision of leadership acts as a starting point for digital transformation in order to drive buy-in from employees. The translation of the vision to reality is a key challenge facing leaders in IT (Roepke et al., 2000). Digital transformation needs to be a regular part of a CEO's agenda in order to drive success

however only a minority of CEO's followed this approach (Fitzgerald et al., 2013). The digital strategy in digitally mature organisations is integrated into the larger business strategy in organisations where the transformation of models, processes and engagement of employees takes place (Kane et al., 2016).

The importance of clear paths and the role leadership plays in removing ambiguity with strategies that may conflict with each other was supported by (Gregory et al., 2015). The clear path can also result from aligning reward systems and incentives with efforts towards digital transformation Fitzgerald et al. (2013). Organisations need clear digital strategies which assist in activities towards innovation and reduces the ambiguity around prioritisation (Ross, Sebastian, & Beath, 2016). Mero et al. (2014) discussed the importance of accountability in influencing the organisation and individual performance when faced with conflicting priorities and how accountability theory can be used to improve the understanding of how managers can communicate the priorities of the organisation.

These leaders who normally hold executive positions need to lead the process and make sure they're managing and coordinating across the company (Fitzgerald et al., 2013). Majority of organisations state that digital efforts are led by senior management usually in the executive positions who need to lead by example and portray positivity around the digital efforts (Kane et al., 2015). Managers spend a lot of time and focus on progressing the digital agenda of an organisation and requires the development of business and multichannel strategies that requires deciding to progress the digital business on its own or the integration into the legacy business (Karimi & Walter, 2015). The importance of developing capabilities that ensures employees prioritise digital, that makes all employees responsible for the digital strategy in their work and creates a culture that favours digital innovation is required when pursuing a strategy (Karimi & Walter, 2015). When leaders in organisations undergoing a digital transformation, share a vision, it results in increased buy-in from employees. Kane et al. (2015) also discussed the use of communication to increase buy-in from employees. Interestingly, Auguste (2013) made use of Kotter (2007) 8-step process for transforming the organisation in the context of digital transformations, see Figure 4 below. Employee buy-in is addressed across all stages of the eight-step model by identifying motivational factors and identification of constraints (Auguste, 2013). Increased levels of buy-in or engagement could be the result of the complex phenomenon of accountability (Hall, Frink, & Buckley, 2017). It is believed in modern culture that the outcome and behaviour of an individual through their actions and performance can be done by holding them accountable (Mero et al., 2014).

This, however, has provided mixed results resulting in the need for further studies on the impact of accountability on job performance (Mero et al., 2014).

EIGHT STEPS TO TRANSFORMING YOUR ORGANIZATION

1 Establishing a Sense of Urgency
- Examining market and competitive realities
- Identifying and discussing crises, potential crises, or major opportunities

2 Forming a Powerful Guiding Coalition
- Assembling a group with enough power to lead the change effort
- Encouraging the group to work together as a team

3 Creating a Vision
- Creating a vision to help direct the change effort
- Developing strategies for achieving that vision

4 Communicating the Vision
- Using every vehicle possible to communicate the new vision and strategies
- Teaching new behaviors by the example of the guiding coalition

5 Empowering Others to Act on the Vision
- Getting rid of obstacles to change
- Changing systems or structures that seriously undermine the vision
- Encouraging risk taking and nontraditional ideas, activities, and actions

6 Planning for and Creating Short-Term Wins
- Planning for visible performance improvements
- Creating those improvements
- Recognizing and rewarding employees involved in the improvements

7 Consolidating Improvements and Producing Still More Change
- Using increased credibility to change systems, structures, and policies that don't fit the vision
- Hiring, promoting, and developing employees who can implement the vision
- Reinvigorating the process with new projects, themes, and change agents

8 Institutionalizing New Approaches
- Articulating the connections between the new behaviors and corporate success
- Developing the means to ensure leadership development and succession

Figure 4: Eight steps to transforming your organisation (Kotter, 2007)

2.3 Accountability

Building on Pearson and Sutherland (2017) research on accountability, this research aims to identify how factors of the system of accountability model, refer to Figure 5, could apply to the success of digital transformation of an organisation. Interestingly, there were many common themes between the key trends that impact digital transformation as articulated by Kane et al. (2015) and that of the system accountability model developed by Pearson and Sutherland (2017), namely the themes of culture, leadership and

strategy that play a role in the success of digital transformation and well as factors that increase accountability.

Accountability according to Joannides (2012) is when an individual gives an account of themselves and their activities. Accountability was found to be related to performing a task and the consequences attached to the result of the task within a period of time (Pearson & Sutherland, 2017). In relation to the performance of the task and consequences view of accountability, Lerner and Tetlock (1999) discussed outcome accountability and process accountability, with process-based accountability focussing more on conforming to guidelines and outcome-based accountability providing flexibility in goal achievement. Chang, Atanasov, Patil, Mellers and Tetlock (2017) discussed the need for justification of the individuals in their strategies and efforts to achieve the desired results for process-based accountability. The expectation of the individual is on the results for outcome-based accountability (Chang et al., 2017). Expanding on the definition of accountability, Bovens (2007) viewed accountability as a being obligated towards the explanation and justification of one's actions. An implication of a relationship between the one providing the explanation and the one receiving the explanation exists (Bovens, 2007). Pearson and Sutherland (2017) also discussed the relationship between the two parties that are being held accountable and the party that holds another to account. This relationship is nestled in the roots of agency theory (Bovens, 2007; Brandsma & Schillemans, 2012; Mero et al., 2014; Pearson & Sutherland, 2017). Agency theory as defined by Eisenhard (1989) is the conflicting manner in which individuals engage with each other when a contractual relationship exists between them and they may have potentially varied goals and preferences. The relationship is between the principal who can assign tasks to the agent (Eisenhard, 1989). The behaviour of the agent is controlled using incentives and agents for monitoring which also ensure alignment between the agent and the principal (Mero et al., 2014). The assumption that interest of the agent and that of the principal are aligned by monitoring was identified as a limitation of agency theory when considering it with respect to accountability (Mero et al., 2014). Pearson and Sutherland (2017) highlighted accountability theory as being built on the basis of agency theory and which refers more to the alignment of the assumptions between the two parties when in a relationship that is contractual in nature. Individuals performance and behaviours are better understood using accountability theory (Mero et al., 2014). Accountability theory was found to provide clear standards and remove ambiguity for employees (Turusbekova, Broekhuis, Emans, & Molleman, 2007). Roch and McNall (2007) discussed accountability as an individual who would feel the pressure to please their audience. Building on previous research, Pearson and Sutherland (2017)

expanded on the application of accountability to an organisation as defined in the constructs of self, peers, managers and systems. This expanded view of accountability was also initially discussed by Sinclair (1995) whereby the researcher describes accountability as a discussion around a role, contract, structure and system which tends to be more clearly defined as opposed to the discussion of personal accountability that is ambiguous and confidential in nature.

2.3.1 Types of Accountability

Pearson and Sutherland (2017) discussed the two main type of accountability which should not be looked at in isolation due to the complex nature of accountability. Formal accountability is used for the monitoring of employees and generally use systems that are external which are non-subjective in nature (Hall, Blass, Ferris, & Massengale, 2004). Pearson and Sutherland (2017) discussed formal accountability originating from an individual who holds a position of power with the ability to affect the performance of an individual in either a positive or negative manner. Frink and Klimoski (2004); Hall and Ferris (2011) elaborated on the formal accountability system being made up of procedural and process related instruments, performance metrics, relationships, procedures, contracts, policies and monitoring of performance which includes rewards and disciplinary actions. Formal accountability assists in alleviating ambiguity which results in improved performance, however, the level of accountability may not always be the same (Laird et al., 2015; Pearson & Sutherland, 2017). Formal accountability can be enacted not only systems but also managers based on power and hierarchy (Rus, van Knippenberg, & Wisse, 2012). Managers are more influential on the accountability of the employees when compared to systems due to the close working relationship between the employee and the manager (Mero et al., 2014).

Hall and Ferris (2011) stated that informal accountability may have a larger impact on the behaviour of an employee than formal accountability due to the subjectivity with which individuals perceive the instruments of accountability. This subjectivity to perceiving the same accountability instruments speaks to the concept of felt accountability. Expanding on this understanding and building on previous research felt accountability has been defined as "an implicit or explicit expectation that one's decisions or actions will be subject to evaluation by some salient audience(s) with the belief that there exists the potential for one to receive either rewards or sanctions based on this expected evaluation" (Hall & Ferris, 2011, p. 134). Pearson and Sutherland (2017) categorised three main constructs to informal accountability. "Accountability to self" refers to one's own accountability to themselves where they act as the principal and

agent themselves. (Passyn & Sujan, 2006; Sinclair, 1995). "Organisational culture and leadership" as discussed by Pearson and Sutherland (2017) refer to how individuals are held to account by the influence of a leader through the social learning processes and exchange as well as communication. Accountability occurs within socio-cultural contexts and therefore culture plays a major role in accountability systems. The leaders should help inculcate a culture that drives accountability. This can be done by the decisions to blame or praise individuals for performance and behaviour which should be the responsibility of top management. "Accountability to peers" simply refers to being accountable between your own peer groups. Individuals do not necessarily accept informal accountability systems (Pearson & Sutherland, 2017). Sinclair (1995) refers to the unseen influences of accountability to peers and which can be seen by companies which adopt a matrix structure.

2.4 Model of accountability

As discussed earlier, Pearson and Sutherland (2017) developed a system of accountability model refer to Figure 5 that reduces the complexity of accountability by articulating informal and formal accountability factors that can work interdependently to help maximise and foster a culture of accountability. The model identifies five key constructs that assist in providing the required results "delivery against expectations" of the accountability system. These five antecedents identified by, Pearson and Sutherland (2017) are "Systems in place in an organisation, the culture of an organisation, the clarity of role and tasks, the strategic leadership of the organisation and the individual"

Hall et al. (2004) defined systems as the accountability mechanisms that drive performance. However, according to Laird et al. (2015), these systems of accountability can cause stress on the individual and have adverse effects. Pearson and Sutherland (2017) stated that an informal accountability system such as the culture of an organisation always trump the formal system as it promotes ownership, trust and a direct correlation to accountability. Thus, accountability is not possible if the culture does not promote it. Some executives according to Pearson and Sutherland (2017) were of the opinion that accountability cannot be achieved without role or job clarity as an individual cannot be held accountable if they do not know what is expected of them. Pearson and Sutherland (2017) placed the onus of driving culture in an organisation on the strategic leadership. Thus, the observed behaviours of leadership can lead to an ethical and accountable environment at the workplace. The critical threshold, which is defined as the maximum level of accountability that can be experienced due to a single factor, can be

countered by presenting a new factor in order to advance to the next level of accountability. Leaders and HR Managers, while ensuring that all five primary factors in the model are met, must aim to reach the critical threshold and consequently, introduce new factors in a systematic way to elevate the levels of accountability. A key factor in driving accountability was the individual or the intrinsic ability to hold oneself accountable and ensuring alignment of the individual with the organisation (Pearson & Sutherland, 2017).
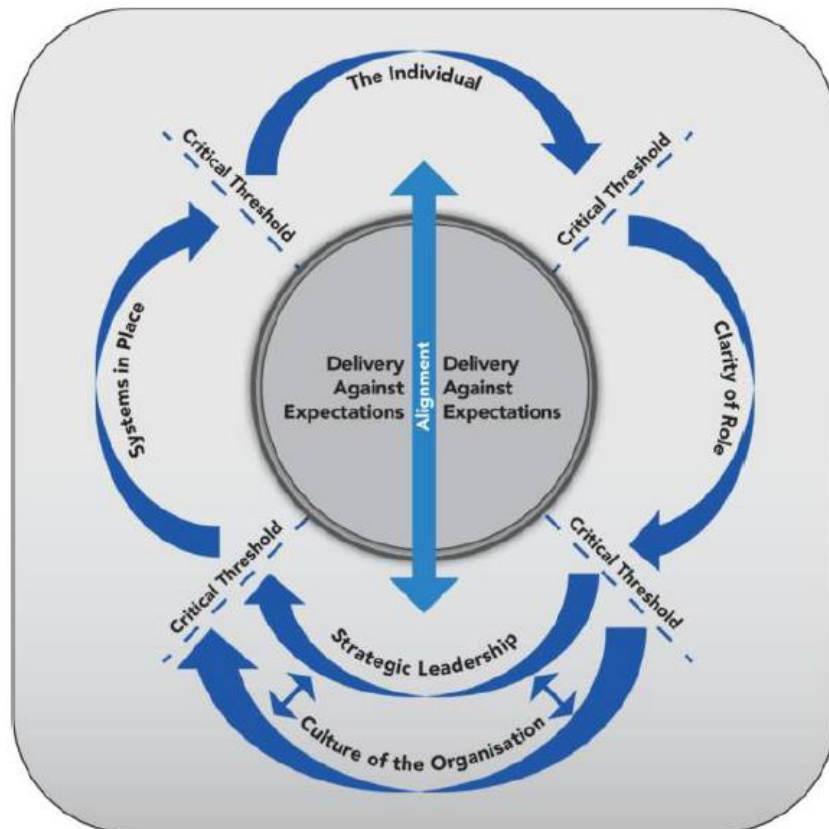
Figure 5. The "System of accountability" model (Pearson & Sutherland, 2017)

2.5 Impact of accountability on Performance

Hall et al. (2004) discussed the complexity of accountability and the influence it has on the behaviour of leaders as well as employees. Building on this and as mentioned earlier Pearson and Sutherland (2017) "antecedents" to accountability were identified as not only the culture, leadership but also systems, individuals values and means of recruitment and clarity of role. These antecedents improve performance by driving the individual's accountability. This link between accountability and performance was

explored by Mero et al. (2014) who found that employees tended to feel the need to justify their performance to their managers that was inherently driven by a more salient accountability felt by the employees due to the monitoring activities of the manager. Pearson and Sutherland (2017) however discussed the need for the accountability to self and peers in the absence of the more structured and formal systems of accountability and hence express the importance of appreciating the complexity of the accountability system which is hard to measure and implement.

2.6 Conclusion

Digital transformation requires implementing not only technology but changing the organisation almost in its entirety (Kane et al., 2015). Business processes, systems, culture, procedure and services are just some of the elements of an organisation that change when it is transformed digitally (Bharadwaj et al., 2013). Strategy, culture and leadership were identified as some of the key drivers of digital transformation and the role of leadership in driving the culture and strategy to improve the success of digital transformation were highlighted (Kane et al., 2015). The interconnectedness between the systems of accountability model was discussed which requires formal and informal systems of accountability in order to increase the level of accountability (Pearson & Sutherland, 2017). The literature clearly states that accountability can drive performance within an organisation (Pearson & Sutherland, 2017). And hence the need to research if an increase in accountability could lead to improving the success of digital transformation of an organisation.

Chapter 3: Research Questions

The main aim of the research was to identify if an increase in accountability would lead to the increase in the success of digital transformation. In order to determine this, the below research questions were formulated based on the literature review.

Research Question 1:

Do companies undergoing digital transformation have a clear and coherent digital business strategy?

Research Question 2:

Are strategic, leadership and cultural factors influential in the digital transformation of an organisation?

Research Question 3:

Does an increased level of accountability escalate the likelihood of the success of digital transformation in an organisation?

Research Question 4:

Do formal accountability systems need to be supported by informal accountability systems to drive performance for digital transformation?

Chapter 4: Research Method

4.1 Research design

The research philosophy that was employed used interpretivism to understand the drivers of accountability and the possible role they played in increasing the chances of success for digital transformation of an organisation. Qualitative research was recommended for techniques that required interpretations of various phenomena that focused on gaining newer insights and discovering the true inner meaning (Zikmund, Babin, Carr, & Griffin, 2008). Due to the qualitative nature of the study and the interpretivism philosophy, an in-depth and investigative interview was performed on a relatively small sample set that provided relevant data until the point of saturation (Creswell, 2014; Saunders, Lewis, & Thornhill, 2009). Therefore an analysis and interpretation of the answers received to the research questions were conducted. The implication behind an interpretive approach to the research was attempted to understand the research from multiple perspectives of reality that rendered subjective ideas and thoughts valid (Greener & Martelli, 2018). The subjectivity of expected results and inferred meanings expected from the interviews could be construed as socially constructed ontology (Saunders et al., 2009).

This research followed an inductive approach to understand the various points of view and in the context in which they were observed. The inductive approach was formed on the basis of inductive reasoning which required logic to establish a generalised proposition to observe facts (Zikmund et al., 2008). Saunders et al. (2009) discussed that the inductive approach was embedded in the social sciences, which focused on the understanding of the context that events took place in, further justifying the need for a relatively small sample set when compared to quantitative data. The data in the form of qualitative interviews preceded the theory. Identification of patterns from these interviews helped in the building of the theory.

A mono methodology for the research was conducted utilising an in-depth interview along with qualitative procedures for analysis of the data in order to understand drivers of accountability and the possible role they played in increasing the chances of success for digital transformation of an organisation (Saunders et al., 2009). The adoption of the mono method was further justified by Pearson and Sutherland (2017) who used the mono methodology to conduct their qualitative research. In the context of the research objective, there was no added advantage of performing a mixed method for the explorative study.

As the research attempted to identify, gain a better definition and understand a research problem, an exploratory research design was used (Greener & Martelli, 2018). Saunders et al. (2009) built on this by stating that exploratory studies were used to get better insights, assess phenomena from a different perspective and to get clarity of understanding when there was no definitive understanding of a problem. Exploratory research required one to be adaptable and flexible in order to change the direction. Hence, a search of relevant literature and interviews was conducted. The exploratory research did not provide conclusive evidence, it was generally the first step after which additional research needed to be conducted to provide the evidence (Zikmund et al., 2008). This approach had been used by Pearson and Sutherland (2017), whose model of accountability was used as one of the two primary models to develop the research.

Saunders et al. (2009) suggested the use of semi-structured interviews in order to get a broad understanding and new insights that could be used for developing and building on existing theory. The research strategy assisted in meeting research objectives and enabled the ability to answer the research questions. The personal nature of the interviews enabled a deeper understanding of the various perspectives (Saunders & Lewis, 2012).

The research followed a cross-sectional approach to the time horizon. Greener and Martelli (2018) stated that most academic studies followed a cross-sectional approach due to the limitations of time. The cross-sectional approach was further justified by the availability of data and in that instance, access to the interviewees. Due to the high profile nature, a single in-depth interview was conducted.

With an awareness and acknowledgement that the results of the research would be affected by the technique and procedure used, this research adopted a qualitative based semi-structured and in-depth interview technique. Although there was not much literature on the specific research topic, a thematic analysis on the existing constructs of accountability and digital transformation as well as other constructs identified during the initial literature review was used to construct the interview questions (Braun & Clarke, 2006; Flick, 2009; Greener & Martelli, 2018). These thematic based questions were used primarily to get insights from the interviewees. Subsequent questions were asked to get a deeper understanding based on the answers provided by the interviewees to the thematic questions. Hence, the use of a semi-structured interview allowed the interviewer flexibility in getting a deeper understanding.

4.2 Population

Saunders and Lewis (2012) defined a population as members of a group that make up a complete set. Adding to this Zikmund et al. (2009) defined the population as a group of complete entities that have similar traits or characteristics. Depending on the characteristics of the population the variability of characteristics could either be heterogeneous (large) or homogenous (small). The level of heterogeneity or homogeneity had a consequential effect on the sample size required. The population should be a representation of members that form part of the research problem and research title. Hence the population that was used for this research included all knowledge workers which were in management and consultants that were in management or leadership and were currently or had been involved in the digital transformation of an organisation.

4.3 Unit of analysis

Zikmund et al. (2009) defined the unit of analysis as the "who" or "what" were the providers of data and the analysis of the data were aggregated to what level. In the context of this research, the unit of analysis was at an individual level. Based on the population, the roles that were interviewed provided the deepest insight of the interviewees were engaged individually. The research aimed to understand the interviewee's (all knowledge workers who were in management and consultants) individualistic perceptions and opinions of leadership and management in order to get a deeper understanding of accountability and the impact on the outcomes of the digital transformation of the organisation.

4.4 Sampling method and size

According to Saunders and Lewis (2012), if the researcher was unable to get access to the entire population a non-probability sampling technique should be used. However what was required was access to senior management of organisations that had been or were entrenched in the digital transformation of their organisations. In order to ensure that the relevant sample was utilised, two non-probability sampling techniques were used in this research, judgemental sampling coupled with a snowball sampling technique.

As the unit of analysis was individuals and not organisations as a whole, getting access to multiple individuals from a few organisations who were representative of the population benefited the richness of the research. The researcher was able to get insight

and a deeper understanding of the digital transformation journey of the organisation and the perceived effect of accountability. This research assumed that due to the perceived variance in the types of individuals (all knowledge workers who were in management and consultants) within organisations and the various industries the organisations operated in, accountability in the context of digital transformation would provide greater benefit to the research if an in-depth heterogeneous focus was used. The sampling approach suggested by Saunders et al. (2009) was able to adopt a purposive, heterogeneous sampling that provided depth to the research. Hence the justification for the selection of judgemental sampling. Leveraging of the connectedness and experience of the interviewees who were consulted with other organisations or individuals who are experts in the field of digital transformation, a snowball technique was also employed.

Due to the qualitative nature of this research, the sample size required was not large and the size was dependent on the research questions and objectives (Saunders et al., 2009). Therefore a sample size 12 was used or until saturation was reached. The point of saturation was defined as when the information being collected was not adding any new data to the research (Creswell, 2014; Saunders & Lewis, 2012). To assist in determining saturation, a frequency analysis of the generation of new codes or ideas from each interview was conducted.

4.5 Measurement instrument

The measurement instrument that was used for this research was in the form of a researcher-driven face-to-face and telephonic in-depth interviews. The interview was conducted in a semi-structured manner that was based on themes. The literature review conducted by the researcher on the existing constructs and models of accountability and digital transformation was used to devise a thematic funnel (Saunders & Lewis, 2012). This thematic funnel which was used as the basis for the development of the questions which were asked.

The research questions that were used for the interview only targeted senior members of the organisation (all knowledge workers who were in management) and consultants who were either experts in the field of digital transformation or alternatively had been entrenched in the digital transformation of their organisations. This added to the validity of the data that were gathered. As recommended by Saunders and Lewis (2012) preparation was done beforehand on the interviewee and the organisation to facilitate a deeper discussion. The choice of location of the interview was determined by the interviewee in order to ensure a high level of comfort. And a consent form was distributed

to the interviewee when arranging the interview along with the high-level objectives of the interview to ensure clarity on the purpose of the interview.

Prior to the actual interviews that took place, two pilot interviews were performed on a small sample of the population in order to determine if the questions added value to the data required for the research, eliminated any leading questions and ensured that the questions were clear and understood by the interviewees (Saunders & Lewis, 2012).

4.6 Validity and Reliability

Zikmund et al. (2009) defined reliability as an indication of the measurement of internal consistency. Non-standardised methods of research, according to Saunders et al. (2009) were a reflection of the circumstances at the time of the interview and hence if repeated would not necessarily provide the same results. Validity was defined as the accuracy of the score of the measurement of a represented concept. Saunders et al. (2009) discussed the impact of interviewer bias where potential questions that lent itself towards the research were asked by the interviewer that resulted in responses that affirmed the expectations of the interviewer. The interviewer's analysis of the responses also lent itself to a bias. The bias of the interviewee was also considered whereby the interviewee chose to omit or overemphasise some responses over others.

In order to ensure consistency, validity and reliability, questions that overlap themes were formulated. The response given to these were analysed for consistency and homogeneity. Consistency was maintained by ensuring that the interviewees were representative of the population and standardisation of the questions that were asked. The impact and awareness required of potential biases from the interviewer in terms of question formulation, analysis and the interviewee with respect to responses given were considered (Saunders & Lewis, 2012).

4.7 Data gathering process

The data was gathered using semi-structured face to face interviews at a location that was convenient to the interviewee. Open-ended questions that require short essay type answers from the interviewees were asked based on the current body of literature as identified in the literature review (Zikmund et al., 2008). The researcher further asked questions to probe into the answers provided by the interviewee that enabled the researcher to explore themes relevant to the research. Although no strict adherence to the duration of the interview was held, the researcher aimed to conclude the interview in

less than an hour mark. This was extended or reduced depending on the objectives of the interview being met. Saunders and Lewis (2012) prescribed steps to be performed for a face to face semi-structured interview which was followed to ensure the relevant permissions were attained and the right procedures followed. The data was recorded on a digital voice recorder allowing the researcher the freedom to listen to the interviewee and provide probing, specifying, direct, indirect, structuring and interpreting questions. The recording was transcribed

Table 1: Research Question and Interview Question Mapping

Research Questions	Data Collection Tools
Do companies undergoing digital transformation have a clear and coherent digital business strategy?	1. What do you understand about the concept of a digital transformation strategy? 2. How do companies undergoing digital transformation ensure that they have a clear and coherent digital transformation strategy 3. How are conflicting priorities between the digital transformation strategy and other business strategies managed?
Are strategic, leadership and cultural factors influential in the digital transformation of an organisation?	4. What are the key factors that help drive the success of your organisation's digital transformation and why do you believe the identified factors to be critical to its success? 5. What factors proven to be a stumbling block in transforming the business and how did they negatively impact transformation?
Does an increased level of accountability escalate the likelihood of the success of digital transformation in an organisation?	6. What is understood by the term accountability? 7. How could accountability results in the increase in the individual's performance towards the digital transformation of the organisation?
Do formal accountability systems need to be supported by informal accountability systems to drive performance for digital transformation?	8. What is your understanding of formal accountability systems and how do you feel they are implemented in the organisation? 9. Are formal accountability systems sufficient to digitally transform the organisation? 10. What are the positive and negative factors of accountability that affect the outcome of the digital transformation of the organisation?

4.8 Analysis approach

A thematic content analysis approach was used to conduct the data analysis that required the data to be summarised and grouped or structured in such a way that it identified common patterns or themes (Flick, 2009; Greener & Martelli, 2018). This approach was also used by Pearson and Sutherland (2017) and as this research was following an inductive approach, once the data was collected and transcribed, the data was analysed using a six-phase approach as advised by (Braun & Clarke, 2006). The first phase attempted to get familiar with the data. This required getting close to the data and having a deep understanding of the various aspects of the data. The second phase involved specifically coding the data initially into multiple codes that formed part of the overarching themes. The third phase involved analysing the codes and based on the researcher's interpretation, identifying the relevant data and codes into overarching themes. The fourth phase required the review of the themes through an iterative process of either identifying new, merging or discarding the themes from phase three. The appropriate data collected was refined into the refined set of finalised themes. At this stage of the thematic analysis, the themes portrayed some insights into the findings. The final phase required the researcher consider the review of the literature that was conducted, the research questions that were formulated and the theme that was identified and interpreted the analysis that was performed in the previous phases and included the relevant data that was gathered to provide evidence that was empirical (Braun & Clarke, 2006; Nowell, Norris, White, & Moules, 2017).

4.9 Limitations

1. Although the research ensured the validity of data by targeting the right individuals for the research as defined by the population, a larger sample size was used to ensure more reliable data.
2. Due to the time constraints required for this research project a cross-sectional time horizon was used, a longitudinal approach in future could provide more in-depth results.
3. The sampling approach that was used was judgemental and snowballed, that lent itself to a certain bias towards particular individuals. Although indicative it may not be representative of the wider population.
4. Although the research was conducted under the strict oversight of the educational institution and supervisors as well as following the proven methodology for conducting the research, the lack of experience of the researcher in conducting academic research was a limitation.

Chapter 5: Results

5.1 Introduction

The results of the research questions as outlined in Chapter 3 are presented in the section below. Interview questions were formulated based on the research questions as well as the literature review. In formulating the interview questions, consistency between the research questions and literature review was maintained using the consistency matrix as detailed in Table 1. An analysis of the data was performed from the semi-structured interviews that were conducted telephonically as well as face-to-face which are presented in this chapter.

5.2 Sample Description

The list of interviews is presented in Table 2 below in the sequence in which the interviews were conducted. Twelve interviews were conducted using a combination of judgemental and snowball sampling techniques. As depicted in Table 2 below, the interviewees were either senior members of the organisation or consultants who either were experts in the field of digital transformation or alternatively had been entrenched in the digital transformation of their organisations.

Table 2 - Table Interviewees (ordered by sequence of interview)

Participant	Industry	Position	Method	Interview Length (Minutes)
1	Government and Public Service	CEO	Face-to-Face	22
2	Automotive	CIO	Telephonic	62
3	Automotive	CIO	Telephonic	44
4	Technology	COO	Telephonic	32
5	Retail	Head of Digital Innovation	Telephonic	24
6	Telecommunications	CSO - Chief Strategy Officer	Telephonic	30

7	Technology	Senior Operations Consultant	Telephonic	41
8	Professional services	Director (Partner)	Telephonic	30
9	Professional services	Consultant	Telephonic	37
10	Food and Beverage	Chief Digital and Innovation Officer	Telephonic	31
11	Food and Beverage	CFO	Telephonic	33
12	Insurance	CEO	Telephonic	33

5.3 Determination of Saturation

Saturation of the data was determined by conducting an analysis of the generation of new ideas through codes after each interview (Creswell, 2014; Saunders & Lewis, 2012). As is evident in Figure 6, no new codes or ideas were being generated after interview eight.
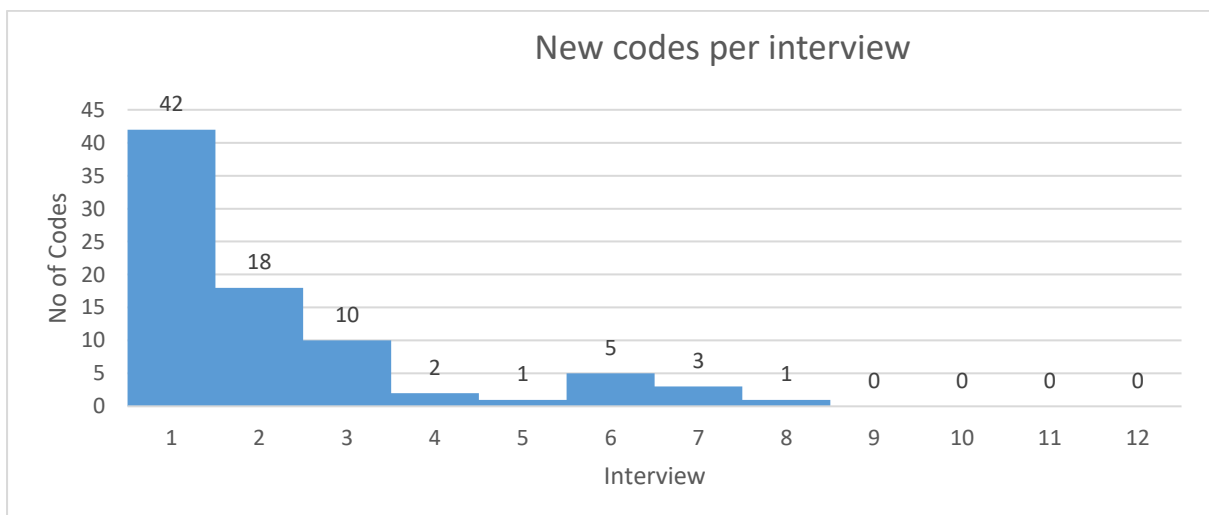

Figure 6: New codes per interview

5.4 Presentation of Results

The results have been presented using the research questions from Chapter 3 along with themes identified from the data that encapsulate the objectives of the research question. This method of identifying themes from the data is aligned with the inductive approach of analysis.

5.5 Results for Research Question 1

Research Question 1: Do companies undergoing digital transformation have a clear and coherent digital business strategy?

The research question was formulated in order to contextualise and ascertain the interview participants' understanding of the concept of digital transformation strategy. The second objective was to gain insights into how organisations would ensure clarity in achieving the objectives of the digital transformation strategy. A further aim of the research question was to ascertain how organisations were able to prioritise the efforts required towards digital transformation when faced with efforts required towards other business strategies and operations.

5.5.1 Concept of Digital Transformation Strategy

Due to the broad definitions of digital transformation resulting in a wider scope of digital transformation strategies that were discussed in chapter 2, the research question was formulated to contextualise and gain insights into the participants understanding of a digital transformation strategy. The constructs of "Transformation of Business", "Automation" and "Customer Centricity" were discussed the most and hence had the highest frequencies.

Transformation of Business

In analysing the construct of "Transformation of Business", some of the participants had the view that digital transformation was not about implementing technology alone, when Participant seven confirmed, "It's not about the technology implementations at all in fact." Participant two's view added further depth to Participant seven's view, "My concept of a digital transformation strategy is to see how you can transform the organization using digital." Participant four highlighted, "Digital transformation strategy for me is around leveraging technology to transform business, is around how business has changed in the modern digital world. And yeah, transforming or challenging business to be relevant" which supported both the previous participants' view."

According to some participants, the transformation of business had been driven largely by changing expectations of stakeholders of the organisation and the maturity of digital technologies with Participant nine stating "Technologies are maturing and so the way you actually fund and the way you actually deliver your core services can now fundamentally be re-imagined." Participant nine further described the constantly changing expectations of stakeholders and used the term "Liquid Expectations." Participant nine: "the Digital Transformation is really looking at the world and how it's changed in terms of two things, one, being able to really understand that how our customers and our citizens and our employees are now experiencing Services in a very unique personalised and efficient way and what we call "Liquid Expectations" which is this expectation that other services in their lives are basically rendered to them in the same way, which is one push."

Defining digitization when describing the need for an internal transformation while digitally transforming the business, Participant two stressed, "digitization is not only what the customers viewing you with it. It's how do you transform internally" and "There's certain parts internally in your organization where you can also transform your business. And digitization is not necessarily an app, digitization could be a tablet, digitization could be taking a process and automating via some form of IT system. The way you collect information, for example, you know, when people purchase vehicles from us, we needed a whole lot of forms. Now, do we put that in a manual file? Or can we actually scan it in, digitize it and make it much easier and share that data. To me, digitization is converting processes digitally, or engaging with customers digitally, or engaging with suppliers." Adding to this, Participant twelve confirmed, "So a lot of people have a misconception that Digital Transformation is purely just a Front End Digital enablement, but we've seen it's actually Modernisation of Back End and Core Legacy Systems itself." Participant two and Participant twelve's statement added further depth to the argument of organisations having to undergo an internal transformation and not just what the customers perceive.

According to Participant six, the internal transformation of the business requires "a strategy that combines people, process and technology." Participant six went on to further describe that these three components requires a comprehensive plan "that combines modern and existing technologies" and "how do you define the culture? How you define the technologies that's going to take you into the new era? And how do you make a tangible? How do you bring all of those things together?" Participant seven discussed some of the factors that need consideration when digitally transforming the organisation by stating, "digital transformation has a whole bunch of capabilities such as customer experience, or customer centricity, operational excellence, the business model, innovation, and strategy, and then leadership and

governance, that that's kind of the main kind of pillars that would constitute digital transformation." Participant ten stressed the need to have a digital mindset in the organisation by stating that digital is "a Transformation of existing business processes and existing disciplines within the business to become digital savvy. So you know you can say, what is the Digital version of Operations look like? The Digital version of Marketing look like? The Digital Version of Sales Channels? So there's really the, how do you take the whole Business and make it Digital savvy going into the future"

Adding further insight to the transformation that the business needs to go through, Participant seven discussed, "digital transformation is about an organization being able to rapidly redefine itself and in an agile fashion, change its operating model in its strategy" and went on to further add "you know grow the capabilities of the organization to be able to rapidly evolve, rapidly innovate and stay ahead of competition in that fashion." Participant nine raised the point that digital transformation requires "re-imagining the Business itself as it's prone to Disruption, but it's also about taking your Company with you." The need to focus on the transformation of people was also articulated by Participant nine who qualified this concept, "And so the other component of it is around making sure that your people and the DNA of your people are now also evolving to enable this Digital Transformation change"

Automation

The second key construct that was derived from the interviews was "Automation". Discussing the state of the organisation prior to digital transformation Participant four summarized, "So I would say that in the before state would be a lot more manual, the cadence of business would be typically slower."

Participant twelve defined the objective of digital transformation as "The real definition of Digital Transformation is, the shiny Front End Screen that filters all the way through to the Back End and automates the entire Process." Adding depth to this definition Participant twelve discussed the breadth of automation across the organisation by stating, "So it all starts with the customer and it filters all the way down to the system perspective and the people perspective to make sure that Automation is a End-to-End Process as opposed to just a Front End Process"

Building on this view, Participant one highlighted automation one of the primary purposes of digitally transforming the organisation by stating "Okay, so the concept of a digital business transformation strategy is to actually take a organization from the point it is currently to a point where things can be automated, or we digital can be introduced." Elaborating on the

explanation, Participant one discussed the various aspects of an organisation that could be digitally transformed "So it It could be something as simple as emails and scanning of documents to maybe a digital footprints out in the market, maybe advertising websites, social media, and then of course, you know, ERP or some time some type of all various types of automation of various processes in the organization." The automation of business processes was also articulated by Participant two who described "digitization could be taking a process and automating via some form of IT system." Building on the definition and impact of digital transformation strategies Participant twelve stated "So it's moving from old based architecture to a more digitised or digital enabled architecture and integration thereof into the front end so that either from a customer perspective or even from a call centre and staff perspective, a lot of automation of manual and, yeah, manual processes are achieved."

Recognising the potential impact of automation of business processes, Participant six reflected "automation doesn't mean job loss, but automation means – allows you to get new skills out of this transformation." Participant twelve, having implemented a chatbot utilizing artificial intelligence systems to supplement the support and sales staff offered a further depth to Participant six's view. Participant twelve in answering an open-ended question on the impact and engagement of staff due to automation Participant twelve discussed "So it's mixed right, so you have the early adopters, the energised staff members who now have extra capacity on their hands because of the automation and will naturally feed into different areas to carry on or fulfil that portion of their work. So you've got the Positive side. The negative side is you've got the FAs and the Brokers and them who are saying, well, I've got a chatbot, I've got digital app that's doing what I'm supposed to be doing and that is a threat. And that is where that Internal resistance that I spoke about comes from a digital transformation strategy. But the majority of it luckily has been, now we've got extra capacity, what else can we do in response? It's also a high headcount levels and requirements as a result, so you don't have to staff and you know obviously from a budgeting perspective we don't have to spend that expense line item to employ more staff. We can employ staff in the areas that need employment as opposed to employing a blanket approach and just getting staff that do manual processes."

Customer Centricity

The third key construct of "Customer Centricity" when discussing the digital transformation strategy is discussed below. Extracting an excerpt of Participant two's view and definition of digitization and the various stakeholders that need to be engaged digitally, Participant two stated, "…engaging with customers digitally." The importance of customer centricity is explicitly mentioned by Participant seven who simply summed up, "So the thing is the pivotal

point is our customer centricity." Participant two discussed the transformation of the organisation internally and the customer aspect of digital transformation as one of two main aspects to digital transformation "The one side is on the customer side where most people talk about which is how can we enable the business you doing? mobi and we need an app, everybody says, We've got to have an app. to me, it goes a lot further than that."

Affirming Participant ten's organisations focus in digitally transforming the organisation, Participant ten stated "Digital is a bit of a broad term because I think many people understand it in different ways. In our lives it is really the – we focus on the Customer End of Digitising the Business, so going from Traditional Business Models to a Digital type of Business Model, Digital Sales Channels, Digital Communication which includes Social Media and so forth." Participant eleven supported the role technology plays in digital transformation to deliver value to the customer "If it really embraces the role of Technology in improving the way that that's you know given to its End Customers and the experience of the End Customers, I think that's what Digital Transformation is all about"

Discussing the purpose of user interfaces that customers use such as mobile apps and the agility and customer centricity required for the digital transformation strategy, Participant seven stated, "These types of emerging technologies just give us a mechanism to get closer to understanding and interacting with customers. So that's really what we're wanting to do. But in order to do it effectively, we need to make sure that we've got proper capabilities in an organization, like we've measured customer experience management, customer journey mapping, understanding our customer being able to correctly obtain data around the behaviours of our customers in order for us to tune our operational environment, to be able to – or as soon as there is a change in need, you know we pick up on that, we flag it and we're able to in an agile fashion change our operations and our strategy to keep up with that need."

5.5.2. Reducing ambiguity in efforts required towards Digital Transformation

Having analysed the participants conceptual understanding of the digital transformation strategy, the second objective of gaining insights on how organisations would ensure clarity in the objectives of the digital transformation strategy to reduce the ambiguity of efforts towards digitally transforming the organisation and assist with prioritization. Analysis of the data resulted in the constructs of "Objective of Digital Transformation", "Ownership" and "Alignment of Strategies" being discussed across most interviews, hence with the highest frequencies.

Objective of Digital Transformation

The construct of "Objective of digital transformation" was identified as one of the key constructs. Participant seven discussed the need to define digital transformation in ensuring that a clear and coherent digital transformation strategy is formulated. Participant seven reflected, "So I think again the definition of digital transformation here is of paramount importance, because without that you're gonna, it will be tricky right, but we need to have an understanding of where we currently sit with regards to what we believe our capabilities we need to be digital." Participant twelve confirmed the need to first define digital transformation "Well firstly to understanding the actual areas you want to focus on. So I mean what I've seen in my practice is that a lot of Companies have a blanket definition for Digital Transformation, so you know they just say, we want to be Digital. We want to offer the Customer a Digital Service. You know but you have to almost chunk that up into increments and understand exactly what are the areas you're focusing on."

When discussing the digital transformation strategy, Participant one stated, "So it has to be an informed strategy. And with that strategy, one would actually want to say, Where would you like to go? What is it that you would like to achieve through digital business transformation?" This states that the strategy that is formulated should have a purpose and state its objectives. Participant five highlighted that digital transformation is about "how to use technology to actually drive business results or to achieve business objectives." The participant however further added, "that's what's not new, in my world" implying that technology has been used before to drive business results.

Participant eight described the objectives of the digital transformation strategy and the various considerations made during strategy formulation by stating "Digital Transformation Strategy it's really about "understanding" what the current challenges an organisation is dealing with – And looking to overcome. It's about unearthing opportunities whilst recognising that one is dealing with, that I have an option to deal with those challenges. It's about embedding better tools and technology that facilitate I guess, or supports better integration support, efficiencies and allow you to leverage bit data to optimise to have a better lens on risks." Participant eleven held an objective and outcome-based view towards digital transformation "it's really around enabling and improving the work that all of our various operating divisions do to provide a much better service, a much better customer engagement and better food preferably at the end of the day at our customers."

The need to be agile in the digital transformation strategy objectives was articulated by Participant ten who stated, "it is more a Dynamics Strategy than what you think. I think that would be – and that's the most Impactful, you pick a Strategy and set it in stone and you go after it for two years by the time it's done it's inaccurate, yeah, it's not relevant anymore"

Participant three articulated the outcome-based approach to strategy formulation in order to provide clarity and coherence by stating that, "I think it starts with a conversation, isn't it? The strategy conversation, the traditional business strategy itself that says, this is what we want to achieve with this business, whether its growth and revenue, decreasing costs, increasing footprint, whatever the case may be." Understanding the desired objective of the business enables the alignment of the digital transformation strategy to those objectives.

Participant three further supported this view, "The second part is the IT strategy itself that should actually aligned to that business strategy. Now, the business transformation strategy is probably the gap or the overlay between the two that becomes crystal clear for you to be able to achieve these business objectives, this is what technology can bring, or this is what technology can offer. And that's the essence of a digital transformation strategy. But it also speaks to beyond that it actually says, shake up your business and think differently. Should you be restructuring a business along call it digital lines"

Participant eleven when discussing the employees within the technology division highlighted the need to undertake technology initiatives that are aligned to the key strategic objectives of the business "and it's then going and enabling [employees] them to Perform – enabling the broader Organisation to achieve on those Strategic Objectives. So I am really not one for implementing any technology solution for the sake of great technology. You know there's got to be this commercial effectiveness linked to everything that I do. And to me it's only commercial effective if they're really cool tech solutions that I provide the business with that go a long way in terms of achieving the key strategic objectives of the business"

The benefits of understanding the objectives of digital transformation were confirmed by Participant four "I think it's important that people will start to understand why it is being done, what the benefits are to the organisation, what the benefits are to, to them." The importance to understand the objective of the organisation was also discussed by Participant nine "So I think it's really important that when embarking on a strategy that companies understand what are the core value drivers for their business, okay, so whether it's efficiency, revenue, new market share, it really is from the beginning understanding what are the needles that need to move as a result of – because embarking on digital for the sake of digital really has proven to have no value."

Ownership

The construct of "Ownership" was identified as one of the key constructs in relation to reducing ambiguity and assisting in the prioritization or efforts towards digital transformation. The need

for business to take ownership of the digital transformation process was articulated by Participant one, warning against pawning the effort towards digital transformation to the IT division because of the technology implementation in transforming the organisation digitally. "you are moving or transforming to digital platforms because it's a digital platform employees think that it's an IT problem and not a business tool because digital transformation is a business tool not an IT so umm there yeah there there is that lack of accountability so if something goes wrong they blame the system and they blame IT and they don't blame business what is it that business has possibly done wrong what is it that business has not informed umm IT about in the formulation of the digital platforms." Participant eight supported the need for business to take ownership of digital transformation by stating, "So it needs to be a Strategy that is like I said, "Owned" at the Highest Level across the key, you know the key Stakeholders of that Organisation"

The importance of buy-in across the organisation was further discussed by Participant eight "So you almost need to ensure that you Develop a Strategy from the ground up and part of that Process is getting the relevant folk across the Organisation to "buy-in" in terms of what you want to achieve. And then you take the top-down strategic view and make sure that you bring those two together." Participant eight linked the ownership of digital to accountability by stating, "But if you're talking specifically Digital I think what's critical is – and maybe it links to your point about "Accountability" is it needs to be a strategy that's owned holistically across the organisation or at the various levels"

Different approaches to managing potential conflict of effort between the digital transformation of the organisation and other business strategies were discussed by Participant ten "Some people create a little digital standalone business unit that's supposed to transform the organisation. Some people do a sort of a digital hub that is sort of a subset of the existing business with the intent to transform the business over a period of time, and then digital becomes part of the DNA of the Business. And thirdly some people just put a Strategy together but it becomes the responsibility of the whole Organisation to make it happen."

Participant ten went on to further recommend a preferred approach "The way that we found it most successful in the business is to do it in a hub format, so it's a little subset of the business that is part of the day-to-day operations, but it is a bunch of digital minded individuals with executive level oversight that then ensures we have a clear plan and we execute according to that plan, and with a big responsibility to make sure that whatever skills we build we take the organisation with. Right, so making sure that we share everything back, we share people the – we Educate the Business so that in the medium term the whole business is digital savvy rather than just the Hub." Participant seven articulated a similar approach to Participant ten in

developing a specialised unit to progress the agenda of digitally transforming the organisation "So what I'm seeing is very popular approaches that it's impossible to boil the ocean right, and we've got with most organizations, they've got such higher or bigger problems that they're trying to address at the same time. So we were looking at an approach of a skunk work division or an innovation hub of sorts where we can clearly pick a team of people to focus on you know, Centre of Excellence, if you will, who would drive the strategy while the rest of the operations are being driven out."

Participant nine coined the term digital office that provides a focussed approach for digital transformation "what I've seen in a lot of the companies is you know sort of Inception of what they call a "Digital Office" or a – I guess there's the Digital Office or there's a Digital Studio, or there is a Digital Programme that sort of gets given the focus."

Participant seven warned against not using the focussed approach of creating teams "And we need to sort of establish these teams as what we called Skunk Works, where we come up with these innovative ideas, etcetera and we start implementing them at a rapid approach outside of our normal business, because what ends up happening is, if we don't do that, we end up falling back into our run of the mill standard business practices and we lose the momentum we need. So it's very, very important to have a center of excellence struggle, which involves business which involves IT architecture, which involves these digital transformation experts, if you will, who are going to drive the program of work and be dedicated solely to the program of work of the digital transformation and the maturity of those capabilities working with these other departments who currently have a lot of demands on resources, etcetera, to start trying to drive these initiatives on the side of the business."

Participant seven also warned against the inability to prioritise "And the reason why I think that's important is because we need a starting point. And we need to understand where our weaknesses are and focus because if we don't benchmark, we're going to battle to prioritise our initiatives effectively.." Due to the complexity of digital transformation and business units having their own objectives Participant six stated, "we have multiple business units, each business unit he has his own priorities. And from companies, you know, it's a business – or digital transformation has multiple legs to it." Participant twelve cautioned against issues with prioritization of work if these dedicated teams are not utilised "I've had to do on my project is you know we first tried to get internal resources that are already involved in Business As Usual to split priority. When we saw that wasn't working we quickly pivoted, we brought in a ring-fenced team of external people and the internal people that we needed on the project we took away their priority from Business As Usual and reprioritised them to the digital Initiative. And we had to realign KPIs for those specific individuals as well. So it's a lot of Change

Management that's needed but we had to set that upfront to make sure that we stood any chance of success to Deliver."

Alignment of Strategies

The construct of "Alignment of Strategies" was also identified as one of the key constructs in relation to reducing ambiguity and assisting in the prioritization or efforts towards digital transformation.

When an open-ended question was asked regarding what Participant twelve considered critical to the digital transformation of the organisation, Participant twelve stated, "you could look into is you know, how does Business and IT get closer together." Participant twelve was highlighting the importance of the need for alignment between IT and business.

Participant four discussed the impact of adopting technology during the digital transformation of the business "[prior to digital transformation] There would be more siloed operations, whereas digital allows the integration of business across functions, across territories, across geographies, it drives business towards a more common way of work." Participant six also discussed the approach to strategy formulation and management prior to digital transformation when dealing with an IT strategy as well as the need to change the approach. Participant six stated "traditionally you had a IT strategy and technology strategy, you know, going in parallel, or sometimes in you know, in silos, but with technology you know leading a lot of the business models today, the digital transformation needs business and technology to work very closely together." Participant four warned against viewing the strategies separately "it's a recipe for disaster if you view business transformation strategy separate from business strategy."

Participant six stressed the importance of linking the business strategies and the digital transformation strategies together by stating "I think the key for us from a digital transformation is to ensure that business is intertwined within this digital transformation or the other way around" The participant implied through his statement that although the strategies need to be linked there is no order or precedent given to a particular strategy. Interestingly Participant eleven had a contradictory view of the digital strategy "I don't necessarily believe that you have Digital Strategy. You have a Strategy that Supports the Business and it can enable that Technology/The Digital World. So I don't believe it's necessarily a Digital Strategy, so maybe there's a Point of Departure there." Participant eleven's view suggested that the business strategy still takes precedence and the digital strategy supports the business rather than guiding it. Participant eleven further elaborateed on the view by stating "there's obviously the Key Strategic Objectives of the Business, right, and Technology is one of those Divisions that

needs to enable them better. It needs to improve them, it needs to make it more Efficient, etcetera, etcetera, but you're not going to see *per se* you know a Digital Strategy you're going to see a Technology Strategy that enables the Key Objectives of the Business or the Key Strategic Objectives of the Business."

The need for alignment between the digital transformation strategy and business was articulated by Participant six "we need real with co-existence between technology and us, and that's how we've made sure that the digital transformation strategies they clearly aligned to where we believe the business is going." Participant one held a similar view between business strategies and the digital transformation strategy "they should go hand in hand, they should complement each other in In fact, there is a business strategy, and the digital business strategy is supposed to support and enhance the business?"

Participant twelve summarized the role of leadership in ensuring alignment between business and IT "And that for me is fundamental, you know you can have the greatest Leader, you can have all that you can have, you can have all the budget and everything but if you don't have, someone to oversee and bridge the gap between IT and Business it's never going to get done." Participant four further elaborated on the role of leadership "You need to leverage digital technology to transform your business and it's one the same, and I believe that it needs to be on the agenda of the most senior management in the organisation. You cannot divorce the two it's one and the same. I mean, business digital transformation strategy is about how do I realise my business objectives through the use of digital technology?"

5.6 Results for Research Question 2

Research Question 2: Are strategic, leadership and cultural factors influential in the digital transformation of an organisation?

The research question 2 was formulated to ascertain the factors that contribute to the success and failure of the digital transformation of the organisation as well as developing a deeper understanding if and how the factors of strategy, leadership and culture were influential in the digital transformation of an organisation.

5.6.1 Factors that impact Digital Transformation

As strategy, leadership and culture were found in chapter 2 to be key factors for the digital transformation of the organisation, the research question was formulated in an open manner to determine the key factors that contribute either successfully or as failure in attempting to

digitally transform the organisation. Of the 18 constructs that were identified, "Clarity", "Culture" and "Capability" were discussed the most and hence had the highest frequencies.

Clarity

The construct of "Clarity" was identified as one of the key factors that can impact digital transformation. The lack of understanding and clarity in previous digital transformations was raised by Participant six "in my previous history there have been attempts to do digital transformation without really understanding what we wanted to do all the leadership, you know, backing, but, you know, in the current format we're very clear about where we want to go, and how we want to utilize digital and it's coming from the top."

Participant three discussed the need for clarity in defining the objectives as a key factor in developing a plan to digitally transform the organisation "clear understanding of what you're up against, or what you're trying to build from. That will ultimately sort of determine a logical to be architecture, so your future state architecture."

The role of clarity of leadership in prioritization was articulated by Participant three "executive support and understanding of where you're going, because it's very easy to confuse a digital transformation roadmap by doing too many things at the same time."

The need for digital fluency was confirmed by Participant ten "sufficient knowledge of Digital and Digital Transformation, I think that's a real start." Participant ten further discussed the need for the organisation to have a knowledge of digital in order to drive the success of the digital transformation "And then thirdly it's just I think the – if Digital is a Function that nobody in the Business knows anything about them except what their name is, it's never going to work."

The need to provide clarity to the organisation was also discussed by Participant ten "You have to regularly expose the Business to what is the Plan? What is the Vision? Where is it going? Because otherwise you will clash, Functions won't understand what it is you're trying to do and thus the Outcome will Fail."

Participant ten articulated the role clarity plays in buy-in by stating, "we work on different pieces that eventually comes together in "this is the new world of the Customer," for example we're looking at Digital as it impacts the Customer. The people outside of the Function, if you only show them the sub-pieces of what you're working on and they don't understand how it comes together at the end you may struggle to find Support for what you're doing. So a large part of it is saying, this is where we want it to end up in three years time."

The negative impact of not providing the employees with a frequent clear plan was confirmed by Participant ten "If people don't know what your Plan is with Digital they may feel somewhat threatened by it because Digital may include automation. It may include replacement of existing Manual Labour. It may include Sales moving away from a Cashier standing today to an online channel. And thus it's really important to share your vision regularly so the people understand how will they benefit from this? How does it impact the overall business so that you've got organisational wide support for what it is you're doing?"

The impact of having a clear and strong vision in driving the behaviour of employees was summed up by Participant seven "So having a very strong vision for digital transformation, it impels people to want it and giving them the desire to want to change is a very big factor in successful digital transformation."

Participant eight further substantiated the need for clarity of the employees in driving behaviour by providing a vision "if you don't have the vision painted, the purpose of why are you doing it whilst you are getting out of bed in the morning to come to work and take the Organisation into a new space? I think you're going to struggle."

Participant ten discussed the need to clarify the vision across the entire organisation "And thus people will just kick against it. So it really is critical that you share a vision and then some people understand the steps that you're taking. And you know, I've now said this a little bit in a Negative sort of a context, in the Boardroom or in the Executive Team it is important to share all of this but it's also important to share it across the broader Team so that in your broader Business people have an understanding of how will Digital down the road affect my life,"

Culture

The construct of "Culture" was identified as one of the key factors that can impact digital transformation. Participant four reflected on the view of the impact culture plays in the organisation being able to adopt change "I think digital transformation is made easier if you have a really solid culture in your organisation because it's, it's going to disrupt your culture, but if you have a good culture, I think it is more easy to receive change and to undergo change. And I also think that it needs to be inclusive because it touches every area of the business."

Participant six also highlighted the importance of the restrictive nature of culture "I believe culture is paramount. And when I refer to people, you know, that's, that's essentially it. If you have naysayers in the organization they're going to hold up the process of digital transformation." Substantiating Participant six's view, Participant seven alluded to the negative and restrictive nature of culture "So I think that's where culture becomes the big problem is

that you've got the bulk of the organization being negative about, you know, ag, if it's just a fad, or. we don't do things like that around here. You need a lot of momentum with lots of people to get over that and that's where the culture shift needs to come in."

Referring to the role culture plays on the motivation of employees Participant seven confirmed, "So yeah, one of the biggest challenges is going to be culture to overcome and get people motivated to work on this new stuff, the stuff outside of what they are accustomed to working with."

Discussing the complacent and engagement impact of culture, Participant twelve stated, "Culture of you know being comfortable and feeling like my job is under threat, and as a result not wanting to cooperate. So that wasn't quite negative because you have to obviously convince people from the top down to buy into your vision, but it's not always as easy as that, you know, so there's been resistance in that sense that people are you know, I'm very comfortable in my job, I have 0800 to 17h00 I do the following things."

Participant nine discussed the culture for innovation and the importance of engaging the employees on the journey towards digital transformation "And I think that you have to have within the organisation the culture change. So being able to have people bring ideas, being able to create a space where experimentation and creating a lab of thoughts that allows every person in the organisation to think differently and bring in new ideas and actually create a cultural movement, it's extremely important because it doesn't matter how cool the technology is or how the Impact is made, if you don't take your people along with you I think that will be the fall of it." Sharing similar views to Participant nine, Participant seven elaborated "IT and the transformation of IT to be flexible and innovative to go on this journey with business is the next major stumbling block, that has a lot to do with culture as well."

Participant eight supported the innovative and agile nature of culture by stating, "We talk about prototyping. We talk about being able to develop on the on the fly, quickly. POCs. The culture is so key there because you almost need a culture that allows one to experiment. You need a culture that allows one to fail cast." The need for a culture that foster agility was articulated by Participant eight "And Culture again is a big thing, and the reason I say "Culture," right, so if we talk about "Digitisation" we talk about agile ways of working."

Participant eight discussed the need for a culture that is supportive "So when one is going to be embarking on a Digital Transformation or any significant Transformation, you need to have the Supporting Culture as one of the key factors to see Success"

Similar to the concept of digital transformation of organisations, Participant seven explained why the concept of total quality management failed by stating, "Simple, its culture and its people, it always is, it was a total quality management, it's worked with the same with digital transformation as well. Trying to get people to think out of a legacy tradition of working and deciding to work in a more faster manner"

Capability

The construct of "Capability" was identified as the third key factors that can impact digital transformation.

Participant eight discussed the need to recognise the new capabilities and skills required to drive the success of digital transformation, "you're now recognising that you need certain types of Skills, Talent, Capability in the Organisation and that this Talent and Skills and so on could very well be very different to what you've typically had in the Organisation, or what has typically brought you to where you are right now. So it's recognising even if you do something different, you're going to be doing something different but you might need different Skills to take you there."

Once the need for new capabilities was recognized, the need for aligning the capabilities to digital transformation was suggested by Participant three: "So it's really understanding the skill set that you require for a digital business and transitioning your organization to those types of skill sets."

Participant six suggested the need for leadership in acquiring the relevant capabilities "So you need to get the right resources and capabilities in. So you get the right people to run this and you from a leadership perspective, you enable change to happen through decision and timely decisions." Elaborating on the view of acquiring the relevant capabilities, Participant six supported the role of partners "a lot of times the transformation is also done in partnership, so you don't do it completely in house. So you need to get the right partner. So you go through the process gets the right partners in place. And then you need to build that relationship with the partner to enable you to get to that last stage. A lot of them are transactional interactions which really don't help if you're really serious about digital transformation."

Participant nine confirmed the importance of developing capabilities internally within the organisation "And so I think it's very important because Skills is going to become an issue and being able to rely on Vendors for everything doesn't really help you change your Core". Participant nine added to this by discussing the need for internal development of capabilities as well as acquiring capabilities externally "I think a lot of people have irrelevant Skills in the

Organisation and so we talk about you know what we call an "Ethics Economy," where it's like if you're going to embark on Digital Transformation you're going to be using this new Technology, there has to be some level of Re-Skilling or there has to be a infusion of Skills either from a Vendor or by Recruiting people that are already doing this."

The need to balance the outsourcing against the internal development of capabilities was explained by Participant six "You know one needs to balance when you get the right people in and then you try to build the right people within the organization"

Participant three discussed the need to outsource the technical capabilities aspect of digital transformation rather than developing the capabilities internally "The rest is around building the skills. The future of digital basically says, your IT skills as we know them today, your systems, engineering, network engineering and what have you, need to be outsourced or the aspiration is, outsource them to all these guys out there. I told you digital transformation is actually been driven by industry more than it is by businesses itself." Participant four, however, held a contradictory view to outsourcing of capabilities, "I think it is the – you can't outsource this thing it needs, it needs to be – yeah, it needs to be done in house, but you may seek advice or you may recruit experts or consultants to assist you."

Participant one, however, supported the importance of identifying the quality of the external capabilities "while what other service providers available to actually offer you good value products, products that you envision will allow you to achieve your strategy at a good price. And, of course, you know, there are service providers out there that don't offer the quality and then you actually may be stuck with a failed product or a failed strategy or a failed portion of your strategy, which actually then causes reputational damage, or organizational reputational damage, so there is, there are those caution areas."

Participant eight discussed the need to have an inclusive approach to developing skills internally in the organisation "the way you're looking at it in an Organisation embarking on their own Transformation journey, that's equally important, because you can't have a small Group of people trying to take the Organisation into a space, totally new space whilst the rest are not conversant. The rest don't understand. The rest haven't been given opportunities to Skill up".

Participant nine, when responding to the factors that have been a stumbling block towards digital transformation, stated, "if you're speaking about Accountability in Transformation, it really has to be a commitment that everyone is going on this journey and it means they're open to ideas. It means that they're willing to make Investments in Re-Skilling people".

5.7 Results for Research Question 3

Research Question 3: Does an increased level of accountability escalate the likelihood of the success of digital transformation in an organisation?

The objective of research question 3 was to understand the concept of accountability and the factors that were attributed to the concept of accountability. The aim of the research question was also to understand the impact of accountability on an individual's performance towards the digital transformation of the organisations.

5.7.1 Concept of Accountability

Given the research topic and the various types of accountability as detailed in chapter 2, it was important to probe the participants understanding of accountability. This enabled the researcher to further contextualise the role accountability plays in digital transformation. The constructs of "Job Clarity", "Engagement" and "Outcome-Based Accountability" were discussed the most and hence had the highest frequencies.

Job Clarity

The construct of "Job Clarity" was identified as one of the key factors when identifying the concept of accountability.

Accountability was described as the need for understanding the purpose at an individual or organisational level was articulated by Participant one who stated, "So if an individual or an organization understands their job and where they fit in the organization, and all the organization understands its mandate, and is committed to their job, that mandate, they will take accountability for their own actions"

The need to have clarity on ownership was explained by Participant two who stated, "Accountability is who is responsible? Somebody has to be responsible, and it cannot be it's not my problem. It's somebody else's."

Participant three discussed the need for clarity on the "what" and "why" of the job function "Accountability really speaks to that, at any given time, you must be able to say, this is what I am accountable for, and why I'm accountable for it."

Participant eight substantiated the need to have clarity on the job function "it's about recognising who needs to achieve what to achieve the Digital Transformation and giving them the Accountability to do what they need to do to succeed."

Engagement

The construct of "Engagement" was identified as one of the key factors when identifying the concept of accountability.

In describing the concept of accountability, Participant four's explained the need to be engaged when accepting a task "Accountability is acceptance of a task or duty and living by the sword, so to speak. So you, you take the good with the bad. If you are putting yourself out there in the sense that you believe in something, you're committed to something. And if it's successful you'll celebrate the win and if it's not successful, you will be receptive to the consequence." This view was supported by Participant ten who elaborated that , "Accountability is for me understood as an individual or as a team, but mostly you know accountability I think starts with individuals is, I own this and I am responsible for the outcomes of this." Participant six stated, "you need to own something that you set out to do, and, you know, good, bad, ugly, if it fails, you put your hand up and you say, listen you tried."

Participant twelve offered an alternative approach to accepting a task, "giving" a task that's focussed on the goal by stating "So accountability is just placing you know, it's placing responsibility on a group of individuals or a specific individual to carry out a set deliverable. The level of detail you're going to go into could be minute or in grandeur or it could be very, not abstract but very high level and goal oriented."

Participant twelve described accountability as being driven by two factors, incentives and engagement. When describing engagement Participant twelve stated, "it's about the type of work and the engagement level of the specific individual." Participant twelve went on to further elaborate on the engagement of the individual needing to supplement the incentives "So obviously you find the right person for that role. You know you can always try to get someone who is not energised, who is not keen to take on a specific aspect and pay him or incentivise him as much as possible but he won't get it done. So you need to have a mix of the two. So you need to have people that are culturally driven towards the high performance and delivery, and then incentivise those people accordingly as well to make sure that they actually do deliver."

Outcome Based Accountability

The construct of "Outcome Based Accountability" was identified as one of the key factors when identifying the concept of accountability.

Participant three alluded to Outcome based accountability when he suggested, "you are accountable for, you know, delivering a set of results". Participant three elaborated on this by offering a simplistic view of accountability, by stating, "accountability is really saying, you know, showing evidence of what you did, and why you did it. That's it. Show evidence of what you did and why you did it. It answers two questions." Participant nine substantiated the outcome based view of accountability in the discussion "Participant nine: "It's making sure not just that something happens but that the impact of what happens is then my number two. So you know if I say, you have to go execute a digital initiative within a strategy, that's great, that means you have to go and make project X happen." Participant eleven offered a commitment and self-accountability perspective to the outcome "Getting something done when I say it's going to be done to be honest with you, and getting it done."

5.7.2 Impact of accountability on an individual's performance towards Digital Transformation

The aim of the research question was to contextualise the concept and understanding of accountability and to understand the impact of accountability of an individual's performance in the digital transformation of the organisations. Analysis of the data resulted in the constructs of "Role", "Rewards and Incentives" and "Consequences" being discussed the most across interviews, hence with the highest frequencies.

Role

The construct of "Role" was identified as one of the key factors when identifying the impact of accountability of an individual's performance towards digital transformation. Participant one questioned if accountability impacts digital transformation or if digitally transforming the business results in increased accountability of the individual "Definitely. But I was actually thinking if it's not maybe the other way around and, you know, in terms of accountability".

The need to understand the individual's role was expressed by Participant one "Do they actually understand what the job function is, and understand the role and responsibility and who must take accountability" Addressing the need to provide the individual with an understanding of the role, Participant three stated "I'd give you clarity of purpose, and that's the first thing you want for a performance driven organization. If you are quite clear on what you have to deliver, then you can account for it at any given time, whether it's use of resources, whether it's delivering of a product or otherwise."

Participant eight discussed the need to work in a team and to provide clarity on the role within the team "So the only way you can do that is if that individual is plugged into a broader initiative.

A broader eco-system. A broader team. You can never do that just alone with the Individual so you need a mechanism that pulls together a broader team to achieve the end-goal of what you're trying to achieve. And that person clearly understands how they fit into the bigger play and that is given the space and responsibility and accountability to do what they need to do".

Linking accountability with initiatives of business as usual and digital transformation, Participant four articulated the need to define clear objectives "maybe the objectives of the digital transformation initiative clearly defined. So are their - the accountability for digital transformation versus the accountability for business, are they aligned?"

Participant nine discussed the impact of creating new roles in the digital transformation of an organisation "I find within these new roles, the accountability is a lot higher because you're now responsible for bringing the new."

Rewards and Incentives

The construct of "Rewards and Incentives" was identified as one of the key factors when identifying the impact of accountability of an individual's performance towards digital transformation.

Participant two discussed the risk avoidance and alignment of the rewards to the digital transformation efforts "there's one other factor and that is how are the reward systems structured? Because if you are a only a very small basic and a hot commission, yeah. And this initiative gets in the way of the Commission. You're on hiding to nothing? Because that's that person's livelihood. They're not even going to entertain the risk."

Participant three, explained the need to scale the incentives based on expectations of the digital transformation "you use a lot of tools for performance management as an example, but ultimately incentivize, incentivize along the impact in line with the impact that you expect to a person to break through, call it whatever, digital transformation initiative that they have"

Questioning the effectiveness of self-accountability of an individual against performance management frameworks, Participant three stated, "Look, I don't see any pragmatic thing other than hairy-fairy things like "feel good" moments. I don't see any pragmatic things other than making sure that you've got a performance management framework that actually speaks to delivery as well. So that good old age concept of SMART objectives specific measurable, achievable, realistic, time based, you know, that type of thing you need to have those types of objectives create KPIs that need to be achieved through whatever intervention you're putting in place" Participant five discussed questioning the effectiveness of the incentives, as the

organisations are not ready to digitally transform, "You know, I think it's, you know it's not a massive thing. I think it should be reward that where people should be rewarded for doing that to a certain extent. If you feel the job should be in that space, then you should be rewarded for making the change, but what I also see is people who try and get shot down and then actually move along. That's the biggest problem with digital people, they are in some organisations that aren't really ready."

Participant six suggested the need for a culture that fosters risk and rewards by stating, "So I think that risk and reward culture of saying, Hey, we are allowed to fail, you know, build a lot of confidence and a lot of people will put their hand up for it."

Consequences

The construct of "Consequences" was identified as one of the key factors when identifying the impact of accountability of an individual's performance towards digital transformation.

Participant seven stated the importance of setting consequences in efforts towards digitally transforming the organisation "So if you get a digital transformation leader, if they don't succeed their head truly needs to be on the block for it, they need to be measured to make sure that it's succeeding and the entire, the entire experience needs to be – you know their neck needs be on the line." Participant seven further discussed the need to have an enforceable system of consequences " if people are able to get out of things, they won't fully deliver to them. And with digital transformation I believe that's the same kind of – accountability needs to exist." In contrast Participant six cautioned against a consequence only approach to driving accountability of the individual "So I think accountability if given the right perspective, and not just the stick builds more confidence and people then take accountability for it." With Participant six further adding, "You know, people shy away from accountability if there's only a negative consequence attached to it, or the perception."

5.8 Results for Research Question 4

Research Question 4: Do formal accountability systems need to be supported by informal accountability systems to drive performance for digital transformation?

The research question was formulated to understand the participant's concept of formal accountability systems. The second aim of the research question was to ascertain if formal accountability systems needed to be supported by informal accountability in the context of the digital transformation of organisations. The research questions also aimed to ascertain any adverse impact to increased levels of accountability towards digital transformation.

5.8.1 Understanding of Formal Accountability systems

Based on the complexity of the definition by Hall and Ferris (2011) of formal accountability in chapter 2, the researcher aimed to understand the participant's concept of formal accountability systems. The constructs of "Job Clarity", "Engagement" and "Outcome-based accountability" were discussed the most and hence had the highest frequencies.

Performance Metrics and Measurement

The construct of "Performance Metrics and Measurement" was identified as one of the key factors when analysing the constructs that emerged from the discussions on the concept of formal accountability.

Participant four discussed the impact of technology on measuring "digital and technology makes measurement easier, quicker, faster and more transparent. So in theory, digital should make measurements and accountability easier, which is why people may be resistant to it potentially"

Referring to formal accountability systems, Participant four explained the need for relevant measurement "the accountability systems will be through performance management metrics, KPI's and I think in our organisation certainly they are not as mature as they should be. And I think from an implementation and enforceability perspective, they need to be enforced and implemented through line management, and there need to be suitable measurements."

Participant eight highlighted the impact of what is measured "you know besides having KPP's that kind of allow you, kind of guide you in terms of what you should be focusing on for a year or quarter or whatever it might be"

Discussing the unpredictability of measurements Participant six suggested the need to align measurements to strategy "You know, measurements can work in your favour and measurement can go against you as well. And it's the biggest challenge to understand how do you attach key performance indicators to what strategically is included as a common strategy?"

Participant eight discussed the need for measurement process to ensure oversight of achievement in line with the strategy. Participant eight also reflected, "think it's important to have a measurement process in place to make sure that you're achieving what you need to achieve based on what you set out to do, right, based on your strategy because I think you should view strategy as you know is the execution component"

Highlighting the complexity of aligning measurements in a multi-strategy environment and the impact of measurement on performance, Participant six stated, "The challenge has been that, you know, multiple strategies don't definitely align all the time. So it's a double-edged sword. I do believe that what you measure is what you get."

In discussing the setting of targets for the next period, Participant ten elaborated , "some of those are more Formalised and some of those are less Formalised, but effectively it's a system of performance measurement and if those are well defined and they're owned by the individuals that set them for themselves rather than the leader that sets them for the Individual, they should be owned by the individuals. And there is a good system at the end of the year to say, this is what we agreed, at the beginning of the year you will achieve and at the end of the year we will sit down and say, have you achieved that? That is you know what I define as a Formal System." Participant ten discussed the relationship between the leader and employee in being given the target as opposed to setting own targets and the impact it has on ownership. Participant ten also explained the monitoring relationship between the leader and the employee.

Participant twelve discussed the need to formalise the KPI's to ensure alignment "You obviously have to formalise the KPIs to make sure that the Processes for Incentivisation are aligned, but you know often you don't have to be very specific". Substantiating Participant ten's view of some targets being formal and others informal Participant twelve stated, "effectively it has to be Formalised from an Incentivisation perspective, but you know it can be driven down Informally from who you report into, which ties back into the vision of the project."

Participant ten discussed the need to periodically check on progress towards targets "I think the most effective ones of those are also – it's checked regularly. So every two months we'll have a sit-down and say, you know, this is what we set out in the beginning of the year, how is your progress towards this? Is it likely that you're going to make it? Do we need to adjust it based on new context, on changed context, on new Learnings? Or are we still heading down the right path?"

Rewards and Consequences

The construct of "Rewards and Consequences" was identified as one of the key factors when analysing the constructs that emerged from the discussions on the concept of formal accountability.

Participant seven identified rewards when discussing formal accountability systems as : "If you mentioned that things that spring to mind are rewards. HR reward, things like you know"

Participant one discussed the need for a reward based system and a consequence based system "there has to be a system of performance and a system of compliance. And, and if you don't, and then people who have not taken accountability for certain things that actually go wrong, then there's consequences"

Participant seven highlighted the motivational impact of rewards on the behaviour "So I think there's, there's great merit it because rewards, people do work towards rewards, right, so I think we just need to be careful about how those reward systems work,"

Participant one articulated the need for consequence management to ensure optimal functioning of the organisation "So, it's consequence management to the, the, the culture, the code of conduct and the the other elements putting organization to ensure that organization operate optimally."

Participant one explained the supportive function of human resources in assisting the consequences management process." HR usually assists the, the organization in the consequence management process be be it warnings, be it, formal disciplinary, or be it, corrective action of some sorts."

Participant seven went on to further stress the importance of applying rewards fairly across the organisation, "if you have a reward system in place, everyone part of that team needs to be rewarded. What ends up happening is most organizations that people would work long hours to try and see results seen – that gets seen and the CEO would get all - would reap the benefits and then you get a distaste amongst the rest of the organization."

Having previously acknowledged the impact of rewards on behaviour, the effectiveness of reward systems was questioned by Participant seven who stated, "I agree from a psychology perspective that people like to work towards reward, but I think our current reward mechanisms are a bit outdated, and perhaps not necessarily the most effective mechanism to get people to perform based on the fact that they abused them, and they know how to abuse them."

Participant nine discussed the impact of incentives on collaboration "if you require quite a few people in the organisation from different divisions to come together to do something, they don't come together really unless you incentivise collaborative or team accountability. So besides the kind a lot of behavioural changes that are needed for digital transformation to succeed, and so as a result the accountability systems are not sitting inside of silos anymore."

Procedure and Process

The construct of "Procedure and Process" was identified as one of the key factors when analysing the constructs that emerged from the discussions on the concept of formal accountability.

Participant three discussed the need for a process that facilitates engagement across the organisation "whatever process that you have in place, try and reach as many cross-functional teams as possible so that everybody's engaged on common objectives and a common purpose." The need for a fair application to the accountability systems was articulated by Participant one: "when the systems of accountability has been violated, appropriate action should be taken and this must be dished out objectively and fairly, umm with without favour," When asked what the role of the leader was when enforcing formal accountability system Participant one answereds, "critical because one is leaders and managers should they themselves know what they are accountable and responsible for, they should live up to the organization systems of accountability."

5.8.2 Impact of Formal and Informal accountability on Digital transformation

The second aim of the research question was to ascertain if formal accountability systems needed to be supported by informal accountability in the context of the digital transformation of organisations. This was tested based on Pearson & Sutherland's (2017) view on the interconnectedness of the systems of accountability model requiring both formal and informal accountability. The constructs of "Measurement and Monitoring", "Leadership" and "Self-Accountability" were discussed the most and hence had the highest frequencies.

Measurement and Monitoring

The construct of "Measurement and Monitoring" was identified as one of the key factors when analysing the constructs that emerged from the interview questions attempting to understand if formal accountability systems were sufficient to digital transform the organisation.

Participant two discussed the impact of measurement on an individual's accountability "On the accountability of individuals, there is more of an impact, because you can measure more now. And we we're in the business of measuring productivity and it just makes it easier to to measure"

Participant twelve had a more sceptical view of the effectiveness of formal accountability systems and suggested an approach that warranted more frequent intervals for managing accountability. Participant twelve disagreed, "no I don't think so because I mean let's be honest when it comes to hr processes you know it's a, it's seen as a checkbox kind of initiative that

people have to do once every six months. And it's not really active management. So in my opinion you obviously have to follow the process from an incentivisation and a career perspective and an HR perspective, but accountability management has to happen on a weekly or daily basis."

Participant twelve explained the need to monitor individuals who are accountable "so people are accountable, you have to check in with them, you have to give feedback to them. You have to guide them. You have to steer them. You have to set the accountability whether it's – you know it can be fluid"

Participant twelve further substantiated the need for a more agile and fluid approach to managing accountability, "So I don't believe that the Formal HR Processes are sufficient, it's got to be much more fluid than they are, but at the same time they are very important to set the original Guidelines down, but you have to make it more actively – you have to manage it more actively than a six monthly Process."

Participant twelve articulated the need to manage accountability in a more agile manner to mirror the agile environments within which organisation operate when transforming digitally. Participant twelve confirmed, "I mean so the reality in digital transformation or any kind of massive project is in flux all the time and it's much fluid and agile. So if you have to apply a very linear process on top of that it's not going to achieve your end result. So yes you can set the guardrails down from an HR perspective but you have to manage accountability in a more periodic and a much more granular level. So because of the fluidity of the project your actual KPI might change. Your actual accountability might change."

Participant one substantiated the importance of the role leaders and managers play in monitoring and running the systems of accountability "Not entirely, okay, because umm systems are just systems. But people come into systems and people work the system, and then they are managers and leaders that they monitor and oversee, umm that the people in the people in the organization are actually living in the systems. So the systems are great on paper, but systems actually have to be executed and supported by the people that are in the systems"

Leadership

The construct of "Leadership" was identified as one of the key factors when analysing the constructs that emerged from the interview question attempting to understand if formal accountability systems were sufficient to digital transform the organisation.

Participant four identified various factors that assist in digitally transforming the organisation over and above the digital transformation "for me, it boils down to management style, management experience, the culture of the organisation, the maturity of the organisation, the readiness of the organisation, the quality of the change management initiative, and blended with that is KPI metrics, Performance Management. It is many things."

Participant four discussed the need for leadership to adopt an inclusive approach to management "management is all about people. And you need to be inclusive in your approach, you need to take people along, you need to sell it to them as to why this is important, and what their role is going to be and how this is going to impact them. So management is massive."

Participant six compared the difference between management and leadership in managing the softer side of an individual "No, I don't think so. I think that those are hygiene factors in my opinion and they enable everyone to know, you know, those are what I call structure, right, in a person's life. And then you have this unstructured part of your life which requires motivation, requires coaching, requires ideation. And that can't be measured, and that's where a leader is needed, right? That's where, you know – or else you would only want management and not leadership."

When asked about the role leadership played along with accountability to drive digital transformation, Participant one confirmedl, "it's, it is absolutely critical, because the leaders and the managers know what the vision is, and they need to ensure that the vision is also shared by the foot soldiers. missing, if, if if the leaders are, are not so supporting and living the vision and driving the vision. And if the foot soldiers are not understanding that and are not cooperating and I'm not taking that accountability to ensure that the systems work, then there is a failed system, no matter how good the digital transformation strategy is."

Self-Accountability

The construct of "Self-Accountability" was identified as one of the key factors when analysing the constructs that emerged from the interview question attempting to understand if formal accountability systems were sufficient to digitally transform the organisation.

Participant one discussed how an individual takes on accountability themselves "formal is actually umm pushed on on an individual, there is the informal is inherent in the individual to automatically take accountability for his or her actions." Participant one, however, cautions against relying only on informal accountability by stating, But sometimes the other ways don't work, and then you have to put formal systems in place to ensure that accountability comes."

Participant eleven confirmed the need for individuals and all elements of the organisation to have their own accountability essentially creating a culture of accountability in the organisation. Participant eleven cautioned, "but bear in mind as well that you know it's also a function of everyone in the team and everyone in the broader organisation. There needs to be the sense of accountability in terms of the ethos of the company and you know the people that we employ. So you know we like to think that you know the people that are here are those people that do take their levels of accountability very seriously as well. So there's obviously got to be a match."

5.8.3 Adverse impact of accountability on Digital Transformation

The research questions also aimed to ascertain any adverse impact on increased levels of accountability towards digital transformation by attempting to understand how increased levels of accountability could impact the digital transformation positively or negatively. The constructs of "Influencing Behaviour", "Ownership" and "Risk Management" were discussed the most and hence had the highest frequencies.

Influencing Behaviour

The construct of "Influencing Behaviour" was identified as one of the key factors when analysing the constructs that emerged from the interview question.

Participant two identified a negative aspect by questioning if the correct behaviour is being driven by incentivisation "are you driving the wrong behaviour? And that goes back to this whole thing about remuneration again, okay. Okay. So it depends what approach you're using in terms of carrot and stick, if you are going to fit somebody whose livelihood they are gonna find ways around it, you've got to be very careful, because that's where accountability comes in. because you know, today that you cannot run organizations the old way with just beating up people. I mean, in the real world, you shouldn't have to incentivize people, why don't they just do their job?"

Participant four discussed the need to align accountabilities to the reward system to drive the behaviour to successfully transform the organisation. Participant four stated, "Okay, so I think because you're trying to digitally transform an entire organisation, if accountabilities are not aligned or in sync across the organisation, because you're touching the entire business, If people have got particular agendas in the organisation, and they are competing accountabilities or competing agendas, then I think you're going to struggle to transform the business. So I think, yeah, there needs to be alignment throughout the organisation for So I think you need to link reward system to accountability."

Participant six articulated the need to measure the relevant metrics to drive the required behaviour to achieve objectives "As I said, firstly you know, if you, if you measure the wrong things, you're going to get the wrong results."

The need to foster a servant leadership approach over accountability was suggested by Participant seven: "So I think it can work against traditional accountability structures but at the same time it's the difference between – it's servant leadership that is needed not necessarily accountability in terms of, I own this it's mine, go away don't touch it. We need a servant leadership mindset to be able to effectively move forward with digital transformation, because they need to also be able to give up their accountability to move on to new better things in order to have a fluid operation and a fluid structure"

Participant nine warned against a self-centered approach to digital transformation due to accountability "guess like we're in a sharing Economy so whilst you're Accountable you shouldn't be cagey about the space of Digital Transformation. And you shouldn't you know hinder other people from bringing ideas even though they're not Accountable for it. So I have sometimes seen that can be a Negative thing."

Risk Management

The construct of "Risk management" was identified as one of the key factors when analysing the constructs that emerged from the interview question.

Participant three offered a simplistic view of accountability "Accountability is risk mitigation that's all it is, it's risk mitigation and you know it's not risk treatment."

Participant three cautioned against assuming one could avoid risk by transferring the accountability and the associated risk "risk treatment includes transference of risk, that's the one you want to avoid at all costs in your formalised accountability structure, because it's very easy to outsource your work isn't it? But you remain accountable for it, so if you look at accountability as risk mitigation it really will sort of provide a greater chance of you being successful at digital transformation and others."

Participant nine discussed the role accountability plays in risk avoidance and the impact it has on innovation and acceptance of failure. Participant nine stated, "As I said Accountability can be negative if it's too stringent in terms of you know having people take calculated risks and to experiment, because in being accountable you actually have to plan to fail too and you can't always be, well, I can't fail and I'm accountable for the bottom line and I'm accountable for all

the initiatives, if this thing doesn't work. I think that's a negative thing and that's why I think accountability in the new world needs to be slightly redefined in terms of its behaviour"

Ownership

The construct of "Ownership" was identified as one of the key factors when analysing the constructs that emerged from the interview question.

Participant ten confirmed the need to set ownership "Yeah, you know Positive is definitely it needs to be Owned by someone, this can't be – because Digital is quite – especially if you start out on the journey it is quite ambiguous, people don't really know what it means yet. So you know Accountability but also understanding what Digital looks like, it needs to go hand-in-hand."

Participant seven reflected on the need to have accountability across the organisation and not just at the top "So I think the positive factors are that its ownership, the caveat to that is that is there needs to be a split of accountability throughout the organization, so it's not just on the top, right, it needs to be throughout.".

Participant eight highlighted the positive factor of clarity on ownership due to accountability "so I guess Positive of being Accountable is that at least you know where the buck stops. Okay, know who is responsible for what. So I think that is very, very important."

Chapter 6: Discussion of Results

6.1 Introduction

The objective for Chapter 6 is to analyse and interpret the findings from the previous chapter keeping in mind the literature that was reviewed in Chapter 2. The results obtained from this study are specified in this chapter interlinked with the concepts and constructs that emerged from the reviewed literature that enabled the questions presented in Chapter 3 to be answered. These findings contribute to a richer understanding of the challenges that face businesses and their leaders when leading digital transformation initiatives. New insights that were previously unexplored emerged from this study. The following sections explore the relevance of the findings and the literature pertaining to this study.

6.2 Discussion of Results for Research Question 1

Research Question 1: Do companies undergoing digital transformation have a clear and coherent digital business strategy?

The research question was formulated in order to understand how organisations undergoing a digital transformation ensure a strategy with clear objectives as well as how organisations were able to prioritise the efforts required towards digital transformation when faced with efforts required towards other business strategies and operations.

6.2.1 Concept of Digital Transformation Strategy

The analysis of the first interview question provided insights into the concept of a digital transformation strategy. The constructs that yielded the highest frequency were "Transformation of Business", "Automation" and "Customer Centricity". Transformation of business was discussed the most across the interviews and hence resulted in the highest frequency. Therefore the construct of transformation of business can be assumed to define the concept of a digital transformation strategy. The construct of "Automation" had the second highest frequency and "Customer centricity" the third highest frequency. The enabling of improvements to the organisation through customer experience and how changes to the business model of the organisation as well as automation were included in the definition of digital transformation by Fitzgerald et al. (2013) and Hess et al. (2016). The concept of digital transformation yielded a wide range of constructs, which reaffirms the broad definition of how digital transformation impacts an organisation (Fitzgerald et al., 2013; Hess et al., 2016).

The participants held the viewpoint that digital transformation is not about implementing technology alone and discussed the need to leverage technology to transform the organisation. This viewpoint was expressed by Majchrzak et al. (2016) and Kane (2015) who state the need to not have a focus on the technology but rather leverage it to derive value.

It was surprising to find that the participants held a differing view of what was found in the literature. Bharadwaj et al. (2013) stated the need for organisations to digitally transform were attributed to the increased digitization of the business infrastructure and Gregory et al. (2015) attributing it to deriving value and competitiveness from technology investments. The participants, however, attributed the transformation of business to the changing expectations of stakeholders such as the customers. Upon further enquiry on the existing knowledge and literature, (Setia, Venkatesh, & Joglekar, 2013) discussed the need for staying competitive due to the constantly changing needs of customers resulting in the transformation of organisations using digital technologies.

The participants discussed the need to not just transform the front-end systems that customers interact with such an 'app'. The participants also discussed the need for a more inherent and internal transformation of the organisation by using IT systems in process automation.

Elaborating on the finding of the transformation that an organisation goes through, it was found that digital transformation strategy should incorporate existing and new technologies along with the business model. Participants discussed transforming the business model including the elements of people, processes and culture. This view was supported in the literature with Matt et al. (2015) discussing the need for the development of the organisation by transforming the products, structures and processes alone rather than focusing on the implementation of technology alone.

The focus on developing the capabilities of the organisation to become digital 'savvy' in order to digitally transform across the entire organisation was found. This was reaffirmed in the literature which stated that the focus of digital transformations should not be on the technology but rather on the capability and the objective of the organisation to leverage the technology to derive value (Majchrzak et al., 2016). The finding that organisations need to develop capabilities to enable the origination to redefine itself in an agile manner and the disruptive impact that digital transformations have to an organisation was identified by Lucas and Goh (2009). Lucas and Goh (2009) discussed the need for the organisation to be agile as a result of the disruptive impact of implementing technology in the transformation process.

A participant articulated the need for focussing on improving the leadership, operational, innovative and customer-centric capabilities of the organisation as a result of digital

transformation. Karimi and Walter (2015) hold a similar viewpoint by stating the importance of leaders in developing capabilities that can create a culture that fosters digital innovation when pursuing a digital transformation strategy.

The impact of improving the speed on business as a result of digital transformation and a shift from manual to automation was emphasized by some participants. Majchrzak et al. (2016) alluded to the impact of digital transformation on the speed at which the organisation is able to make decisions at both an operational and strategic level as well as the development of new products.

A participant had the view of automating all processes within the organisation from the customer front end to the back end internal systems, this view, however, was not supported in the literature

The impact of automation on the job of an employee was found to result in the development of new skills rather than the loss of job. Automation was also found to have an impact on the engagement of staff with some staff accepting and adapt by utilising the additional time provided by automation to their benefit. It was found that the adverse impact of automation was resistance in adoption by employees. This finding was reaffirmed by Westerman and Bonnet (2015) who stated that the adoption of new technologies augment the activities of individuals providing them with the ability to perform tasks of higher value.

There was a consensus amongst participants in the importance of adopting a customer-centric approach to digital transformation. It was found that the digital transformation of an organisation is focussed either internally or externally with a view of the customer with a customer-centric approach. The customer-centric approach to digital transformation was found to digitize across the entire organisation, with the customer view of digital transformation rather than the internal, some participants stated that the purpose of digital transformation was to improve the customer experience with the use of technology. Fitzgerald et al. (2013) supported this view by stating that improvements in relations to customers can be realised in the digital transformation of the organisation with the assistance of leaders who are knowledgeable digitally. Some participants articulating the value of customer centricity to the organisation being the ability to improve the understanding of the customer through technology and data in order to adjust the organisational operating environment in an agile manner. The benefits of a customer centric-approach to deriving value and understating of the customer was discussed by (Setia et al., 2013) who discussed the need to have a customer-centric approach towards the digital business strategy in order to enhance the service performance through improved information quality of the customer.

6.2.2. Reducing ambiguity in efforts required towards Digital Transformation

The aim of the interview questions two and three was to ascertain how organisations would ensure clarity in the objectives of the digital transformation strategy to reduce the ambiguity of efforts towards digitally transforming the organisation and assist with prioritization. Analysis of the data resulted in the constructs of "Objective of Digital Transformation", "Ownership" and "Alignment of Strategies" being discussed across most of the interviews.

The construct of "Objective of digital transformation" was identified as one of the key constructs. There was consensus on the importance on clearly defining the objective of the digital transformation initiative for the organisation. In relation to defining the objective, some participants discussed the need to have a common understanding of digital transformation by first defining it in the context of the organisation. This would enable the organisation to reduce ambiguity and ensure clarity in the development of the objectives. A participant raised the finding of the benefits of defining the objectives of the digital transformation by providing the organisation on clarity on areas to focus thereby assisting them in prioritization. Kane et al. (2015) discussed the importance of understanding the scope and objectives of the digital transformation strategy by stating that the power of the strategy resides in the scope and objectives.

The importance in understanding the core value drivers such as the strategy for growth towards market share or revenue or a strategy to improve efficiencies within the organisation in order to digitally transform the organisation with those objectives in mind was articulated by a participant. It was found that the need for understanding the desired objective of the business enables the alignment of the digital transformation strategy to those objectives. The ability to achieve business objectives by providing clarity as a result of aligning the IT strategies and the business strategies were highlighted as the essence of the digital transformation strategy. These views are in line with the literature with the impact of alignment of strategies to the main objectives of the business, such as increasing profits was raised by Gerow et al. (2014) who further stated that alignment of strategies results in improved levels of performance in achieving the business objectives.

A participant raised the positive outcome of being able to develop the necessary capabilities to digitally transform the organisation if the objectives of the transformation were understood across the organisation. Majchrzak et al. (2016) hold the same view as the participant in stating that the focus is not on the technology during digital transformation but rather on the capability and objectives to leverage the technology to create value for the organisation.

Using technology in the achievement of business objectives was found and ensuring the technology initiatives are aligned to the key strategic objectives of the business were raised by the participants. This is supported in the literature by Kane (2015) who stated the need to leverage technology to achieve business objectives in order to digitally transform an organisation.

The construct of "Ownership" was identified as one of the key constructs in relation to reducing ambiguity and assisting in the prioritization or efforts towards digital transformation.

A participant who warned against digital transformation being seen as an IT problem and not a business problem as it is centred around technology articulated the need for business take ownership of the digital transformation process. Bharadwaj et al. (2013) offered the need for the organisation to adopt an overarching strategy for the organisation that is an amalgamation of both the IT and business strategy.

It was found that leadership should take ownership of the strategy and drive buy-in across the organisation using a top-down approach. This led a participant to provide a new insight of linking the ownership of the digital transformation strategy to the concept of accountability by stating that the strategy needs to be owned across the entire organisation across all levels. Fitzgerald et al. (2013) alluded to the role leadership plays in driving buy-in across the organisation when digitally transforming the business by providing a vision.

The need to involve elements of the business team and IT team as well as external experts on digital transformation to assist in the capacity and capability of digital transformation efforts was found in the data. Bharadwaj et al. (2013) supported the view of developing capabilities and ensuring the organisation has the ability to scale its capabilities up or down to derive value from the digital transformation by leveraging multiple technologies and platforms.

A key insight was found in the context of digital transformation of organisations, with the need to create a standalone and dedicated function either external or internal to the organisation that takes accountability and ownership of the digital transformation efforts. The Hub format that was given the term "Digital Office", i.e. dedicated function within the organisation was found to be the most successful in providing the team with the clarity to digitally transform the organisation with focused activities. The dedicated team would then be given the additional responsibility of taking the rest of the organisation on the journey to digital transformation. This would enable the rest of the organisation to pursue the core value drivers as part of the day to day operations while the ream transforms the organisation.

It was found that organisations have an inability to prioritise due to the high demand on the resources of the organisation and the split in priority between normal business operations and efforts towards digital transformation. This also ran the risk of the digital transformation efforts losing momentum and employees refocus on normal business operations over time if they do not employ a dedicated team towards digital transformation. A solution that proved to be successful was identified by a participant was to follow the digital office approach of ring-fencing the team and realigning the KPI's towards digital transformation efforts.

Yeow et al. (2018) discussed the willingness to invest in the creation of a dedicated team with members from across the organisation and providing them with the ability to manage external resources in order to achieve the digital strategy. Mero et al. (2014) discussed the need for accountability in an organisation when working with multiple priorities. The importance of aligning reward systems towards digital transformation was found in the literature (Fitzgerald et al., 2013).

The construct of "Alignment of Strategies" was also identified as one of the key constructs in relation to reducing ambiguity and assisting in the prioritization or efforts towards digital transformation.

In efforts to digitally transform the organisation, it was found that a need exists for business and IT to work closer together. This view was affirmed by Gregory et al. (2015) who discussed the need to merge the interests of IT with that of the business.

The benefits of eradicating silos within the organisation and creating a standard way of working across the entire organisation were found. This is done by utilising an inclusive digital transformation approach over a traditional implementation of technology by the IT alone. It was found in the literature that the impact of silos can result in prioritization, limited talent and constraints (Kane et al., 2016).

The need to integrate the digital transformation strategy with the business strategy was found to have great importance in order to not encourage priority on one strategy over the other. Reaffirming the view of integration and the complementary nature of both the strategies it was found that the alignment of the digital transformation strategy with that of the business objectives and the business strategy was emphasised. The literature supports the view of the participants in stating that clear digital strategies assist in reducing ambiguity around prioritization (Ross et al., 2016) (Ross et al., 2016).

Although a participant did not follow the need for a digital transformation strategy, contradicting the findings in the literature and that of other participants, the participant held a common view

of the need to have a strategy and using the technology as an enabler to achieve the strategy. This view was found in the literature with, W. Li et al., (2016) who discussed the need to leverage technology to support the business strategy.

6.3 Discussion of Results for Research Question 2

Research Question 2: Are strategic, leadership and cultural factors influential in the digital transformation of an organisation?

The research question 2 was formulated to ascertain the factors that contribute to the success and failure of the digital transformation of the organisation as well as developing a deeper understanding if and how the factors of strategy, leadership and culture were influential in the digital transformation of an organisation. Due to the inductive approach of conducting the research, open-ended interview questions were asked to determine if strategy, culture and leadership emerge as the most influential or if other factors are identified.

6.3.1 Factors that impact Digital Transformation

The aim of the research question was to understand the factors that contribute to the success of digital transformation. Analysis of the data resulted in the constructs of "Clarity", "Culture" and "Capability" was discussed.

The construct of "Clarity" emerged as the highest frequency in analysing the data, this implies the environment of uncertainty and ambiguity within which digital transformations take place.

A key finding was the need for clarity and providing the vision of the digital transformation strategy that is driven from the top. Warning against the failure of digital transformation, the need for regular communication of the vision and the plan to provide clarity to the various business functions, despite their direct involvement in the particular aspect of the digital transformation was found to be of importance. This view was supported by the literature which expresses the need for a clear strategy that is communicated by the leaders (Yeow et al., 2018)

A participant raised the need for buy-in from leadership and their role in providing the vision of the digital transformation strategy to alleviate prioritization issues when faced with multiple activities. The view of Kane et al. (2015) that a clear strategy for digital transformation is driven by a leader and the importance of the leaders who provide a vision that is transformative was found in the existing body of knowledge (Kane et al., 2016).

A factor that was identified as the key was the need for clarity in the definition of objectives of the digital transformation strategy.

The finding of the concept of digital fluency was identified in a participant's response to the need for the organisation to have clarity and the knowledge of digital and digital transformation across the organisation to drive the success of digital transformation. This view was reaffirmed in the literature (Kane et al., 2015)

It was found that with the potential outcome of job loss as an outcome of the digital transformation, providing clarity on the digital transformation plan and the potential benefits in order to prevent employees feeling threatened by the impact of digital transformation on their job functions was found in the data. The ability of leadership to drive the buy-in of employees by providing the vision of the digital transformation initiative was discussed by Fitzgerald et al. (2013). The impact of augmenting employee activities rather than loss of job as a result of automation was discussed in the literature (Westerman & Bonnet, 2015).

The impact of a strong vision of the digital transformation on influencing the behaviour of employees was found to increase the engagement of employees to drive the success of the transformational efforts was found in the data which aligns with the findings in the literature (Fitzgerald et al., 2013).

The construct of "Culture" was identified as one of the key factors that can impact digital transformation. Having a culture that is receptive to change was found to have a positive influence on the organisation's ability to digitally transform due to the disruptive effects of digital transformation on the culture. The impact of a new innovation as digital transformation would be can be impacted by the culture of the organisation (Lucas & Goh, 2009).

The need for a cultural shift, when faced with a negative culture that is resistant to the digital transformation, was found. It was found that culture has an impact on the motivation, complacency, and engagement of employees in the digital transformation which could prove to be challenging to overcome.

It was found that failure should be an acceptable result of fostering a culture that is supportive and centred around innovation and agility. These are considered important to drive the success of digital transformation. As per the literature, Kane et al. (2015) discussed the need to embrace failure and the need for the agility of employees through culture was articulated (W. Li et al., 2016).

The construct of "Capability" was identified as the third key factors that can impact digital transformation.

It was found that due to the digital transformative process the organisation goes through, a recognition that new capabilities and skills would be required by the organisation that was not needed prior to the commencement of the transformation process. This need to develop the relevant skills for transformation was affirmed in the literature (Roepke et al., 2000).

It was found that participants specified the role of leadership in acquiring the capabilities and skills required for the efforts towards digital transformation through partnerships and development of employees within the organisation or recruiting new employees. A balance between acquiring external capabilities and developing internal capabilities was found. The role of the leader in identifying the necessary talent to assist the organisation (Kane et al., 2015; Roepke et al., 2000)

The finding that opposing views were offered regarding the need to outsource capabilities or develop in-house. However what was evident either way was the need to build capability. Westerman (2016) specified how outsourcing can be managed by an organisation depending on the need of the employees.

A key finding was to have an inclusive approach to the development of skills internally that includes the entire organisation and not just a select few. This inclusive approach was found to have an impact on accountability. Kane et al. (2015) specified the maturity of the organisation in achieving the strategy through the development of skills.

6.4 Discussion of Results for Research Question 3

Research Question 3: Does an increased level of accountability escalate the likelihood of the success of digital transformation in an organisation?

The objective of research question 3 was to understand the concept of accountability and the factors that were attributed to the concept of accountability. The aim of the research question was also to understand the impact of accountability on an individual's performance towards the digital transformation of the organisations.

Accountability according to Joannides (2012) is when an individual gives an account of themselves and their activities. Accountability was found to be related to performing a task and the consequences attached to the result of the task within a period of time (Pearson & Sutherland, 2017).

6.4.1 Concept of Accountability

Given the research topic and the various types of accountability as detailed in chapter 2, it was important to probe the participants understanding of accountability. This enables the researcher to further contextualise the role accountability plays in digital transformation. The constructs of "Job Clarity", "Engagement" and "Outcome-Based Accountability" were discussed the most and hence had the highest frequencies. The three constructs are discussed below.

The construct of "Job Clarity" was identified as one of the key factors when identifying the concept of accountability.

It was found that accountability was attributed to having an understanding of the job and the role in the organisation as well as having a commitment to the job and fit in the organisation. This view is echoed by Pearson and Sutherland (2017) hold the view that accountability cannot be achieved without the clarity of the job.

It was found that accountability was attributed to being responsible and identifying the responsible party. The need to take ownership was also found. A participant expressed accountability as being able to identify what exactly is the individual accountability for as well as why the individual is accountable for it. It was found that given a task the identification of what needs to be achieved by whom was an important factor in providing job clarity.

Sinclair (1995) and Joannides (2012) discussed accountability with clearly defined roles which would remove the ambiguity around what and why the individual is accountable as well as addressing accountability to whom for what.

The construct of "Engagement" was identified as one of the key factors when identifying the concept of accountability.

It was found that acceptance of a task was a critical factor in driving engagement towards being more accountable, irrespective of the consequences or rewards. Although it was not found in existing literature, further enquiry yielded the compulsion to complete a task may be attributed to accepting responsibility (McGrath & Whitty, 2018).

A participant attributed accountability to either the individual or a team and being responsible and taking ownership for the outcome of a given task and seeing it through even if it leads to failure. The view taking ownership of a given task is closely aligned to the definition of accountably by Pearson and Sutherland, (2017).

A contrasting perspective was found to the acceptance of a task by giving a task to either a group or an individual and ensuring the task is carried out. Accountability was found to be driven by two factors, incentives and engagement. A participant raised the importance of finding the right individual with a level of engagement to carry out a task. The level of engagement was found to be influenced by the culture of the organisation and the incentives that are attributed to a given task for an individual in a particular role. The potential to receive rewards or sanctions was discussed by (Hall & Ferris, 2011)

The construct of "Outcome Based Accountability" was identified as one of the key factors when identifying the concept of accountability.

Accountability was attributed to the delivery of results and providing evidence of the result. This implied that rather than the process and the "how" of delivering the results, the focus is on achieving the outcome. A further attribute tied to outcome-based accountability was the ensuring completion of the task when a commitment was made. The focus on the outcome or results was substantiated in the literature (Chang et al., 2017).

6.4.2 Impact of accountability on an individual's performance towards Digital Transformation

The objective of research question 3 was to understand the concept of accountability, the aim of the research question was also to understand the impact of accountability on an individuals performance towards the digital transformation of the organisations. Analysis of the data resulted in the constructs of "Role", "Rewards and Incentives" and "Consequences" being discussed.

The construct of "Role" was identified as one of the key factors when identifying the impact of accountability on an individual's performance towards digital transformation.

It was suggested by a participant that the role accountability plays in digital transformation was in question with some participants suggesting that instead of accountability influencing digital transformation, having digitally transformed the organisation would lead to increased accountability. There was, however, no evidence in the literature to substantiate this.

It was found that the understanding of one's role and responsibilities and providing a clarity of purpose was important in the context of how accountability could result in increasing an individuals performance towards digital transformation. Another attribute to the role was providing clarity of purpose. It was found that when digitally transforming an organisation, the importance of understanding one's role when working in a team based setting was paramount

to being able to achieve the task thereby make the individual accountable. Clarity of role was found to be an antecedent of accountability by Pearson and Sutherland (2017) that could result in the improvement of performance. If there is no clarity in the job role, individuals would not be able to ascertain what is expected of them and hence they cannot be held accountable (Pearson & Sutherland, 2017).

Ensuring alignment of one's role between the accountability towards the digital transformation initiative and other business initiatives was found. The value in creating new roles within an organisation that are specifically focussed on digital transformation was found to be a factor in ensuring accountability. The benefits of a dedicate role were substantiated by (Singh & Hess, 2017) who stated that the role is created specifically to drive the execution of the digital transformation strategy.

The construct of "Rewards and Incentives" was identified as one of the key factors when identifying the impact of accountability on an individual's performance towards digital transformation.

It was found that in the context risk avoidance and aligning rewards towards the efforts of digital transformation, the structure of the rewards system was important in increasing accountability. The need to the alignment of the incentives that are a part of the rewards systems to the expected to the efforts required to digitally transform was found. This aligns with the view of (Fitzgerald et al., 2013) who stated the alignment of reward systems towards efforts of digital transformation can result in clear paths.

It was found that it is essential that performance management frameworks are aligned with the expected outcomes of the digital transformation. A key factor of driving accountability was attributed to the alignment of the individual to the organisation (Pearson & Sutherland, 2017). Kane et al. (2016) also specified the need to align tasks to the business strategy. by using the digital congruence model.

Importance of a culture that encourages risk-taking and rewards as well as creating an environment where failure is allowed would assist in the digital transformation. In order for an organisation to become digitally mature, the need for them to have a risk-taking culture was substantiated by Kane et al. (2015).

The construct of "Consequences" was identified as one of the key factors when identifying the impact of accountability on an individual's performance towards digital transformation.

It was found that consequences need to be set for leaders of digital transformation for failure in the digital transformation. The need to measure their efforts to ensure success was expressed by a participant. It was found that accountability needs to be placed on an individual preventing them from avoiding their duties thereby requiring an enforceable system of consequences to driving accountability. It was found that focussing only on consequences can result in a loss of confidence of an individual to take on accountability and hence the need for rewards along with accountability was expressed. The consequences that are associated with performing a particular task was found to be related to accountability (Pearson & Sutherland, 2017).

6.5 Discussion of Results for Research Question 4

Research Question 4: Do formal accountability systems need to be supported by informal accountability systems to drive performance for digital transformation?

The research question was formulated to understand the participant's concept of formal accountability systems. The second aim of the research question was to ascertain if formal accountability systems needed to be supported by informal accountability in the context of the digital transformation of organisations. The research questions also aimed to ascertain any adverse impact to increased levels of accountability towards digital transformation.

6.5.1 Understanding of Formal Accountability systems

The construct of "Performance Metrics and Measurement" was identified as one of the key factors when analysing the constructs that emerged from the discussions on the concept of formal accountability.

The impact of implementing digital systems through the digital transformation of the organisation assists in the measuring of individuals and creates transparency resulting in increased accountability. This was supported in the literature by Bharadwaj et al. (2013) who discusses leveraging of the digital platforms that are implemented through a digital transformation to gather information and data. This gathering of information on an individual would improve the transparency.

It was found that accountability systems are implemented through performance management metrics by ensuring the relevant metrics are measured and enforced through management. Frink and Klimoski (2004); Hall and Ferris (2011) specified the performance metrics being managed through formal accountability systems.

A participant expressed the impact of performance metrics on guiding the efforts and focus of an individual for a period. Individuals focus efforts based on what they are measured on. It was found that metrics resulted in unpredictable outcomes, however, it was important to have a measurement process that is aligned with the strategy in order to ensure the desired objectives are met. The alignment of measurements in a multi-strategy environment was found to be complex. Pearson and Sutherland (2017) discussed the need to ensure alignment between the individual and the organisation to ensure accountability. Mero et al. (2014) also suggested the impact of accountability on the performance of individual results in influencing the behaviour. Therefore if the accountability systems are measured and aligned to the strategy the individual performance towards the strategy could improve.

Objectives can be set for individuals in either a formal or informal manner that together form part of the system of performance measurements. Clarity in the definition of the measurements results in increased ownership by the individual especially when an individual sets measurements for himself or herself rather than it being set for them by a leader. The need to have a holistic approach to setting accountability by adopting formal and informal accountability was expressed by Pearson and Sutherland (2017). Turusbekova et al. (2007) state the need for clarity and the removal of ambiguity in the context of accountability. This could be achieved by clearly defining to the individual what they are being measured on.

It was found that an agreement on the individual's performance is set between the individual and the person holding the individual to account whereby the performance of the individual is reviewed periodically. It was found that the setting of the performance metrics needs to occur through a formalised process in order to ensure alignment to objectives. This relationship of a person holding another to account is based on agency theory as discussed by Eisenhard (1989) who discusses the need for a contractual relationship and assigning of a task by the principal to an agent.

The construct of "Rewards and Consequences" was identified as one of the key factors when analysing the constructs that emerged from the discussions on the concept of formal accountability.

Rewards were identified as one of the key elements of a formal accountability system. It was found that it was important to have a system of compliance and a a system of performance together. This was attributed to a formal accountability system.

Frink and Klimoski (2004); Hall and Ferris (2011) substantiated this by stating that formal accountability is made up of performance metrics which are related to reward systems.

It was found that individuals work towards rewards, therefore, the system of rewards needs to work well. In order to ensure an organisation operates optimally a participant discussed the need for consequence management system among other factors. Systems of accountability such as incentives were found to impact the behaviours of individuals towards digital transformation by aligning the incentives towards the desired objects such as cross-functional collaboration. These findings are in line with Mero et al. (2014) who suggested the impact of the behaviour of an individual due to accountability.

The application of rewards in a fair and just manner was found to be essential in order to prevent engagement issues among the employees. This provided a new insight that was not verified by the literature.

Procedure and Process

The construct of "Procedure and Process" was identified as one of the key factors when analysing the constructs that emerged from the discussions on the concept of formal accountability.

Engagement of individuals in a cross-functional team when working when working towards a common purpose can be facilitated by the setting of a process. The engagement was found to be influenced by the transformation of the organisation (Kane et al., 2016). The fair application of accountability systems was found to be of importance. The need for leadership to lead by examples was found to be critical in enforcing systems of accountability. Pearson and Sutherland (2017) discussed the influence of the leader on an individual through the social learning process which suggests the process of leading by example.

6.5.2 Impact of Formal and Informal accountability on Digital transformation

The second aim of the research question was to ascertain if formal accountability systems needed to be supported by informal accountability in the context of the digital transformation of organisations. This was tested based on Pearson & Sutherland's (2017) view on the interconnectedness of the systems of accountability model requiring both formal and informal accountability. The constructs of "Measurement and Monitoring", "Leadership" and "Self-Accountability" were discussed the most.

The construct of "Measurement and Monitoring" was identified as one of the key factors when analysing the constructs that emerged from the interview question attempting to understand if formal accountability systems were sufficient to digital transform the organisation.

It was found that digital transformation has an impact on the accountability of an individual as a result of the increased measurement of the productivity of individuals.

This was supported in the literature by Bharadwaj et al. (2013) who discussed leveraging of the digital platforms that are implemented through a digital transformation to gather information and data. This gathering of information on an individual would improve the transparency.

It was found that if formal accountability systems are not managed actively, they can be ineffective. Rus et al. (2012) discussed the need for managers to be enacted. This however according to the finding needs to be done in an active manner.

The role of leaders in supporting and executing the formal system of accountability was found to be crucial. Leaders need to play an active role in monitoring them. Formal accountability can be enacted not only systems but also managers based on power and hierarchy (Rus et al., 2012).

It was found that although individuals are inherently accountable, it was found that they still need to be monitored. This was supported by the concept of felt accountability as stated by (Hall & Ferris, 2011).

It was found that formal accountability systems need to be agile and fluid in their approach to managing accountability by aligning them to objectives with frequent review of the set metrics. Although Pearson & Sutherland (2017) discussed the need to align the individual to the organisation, there need for an agile approach to alignment of accountability systems to the digital transformation was a new insight.

The construct of "Leadership" was identified as one of the key factors when analysing the constructs that emerged from the interview question attempting to understand if formal accountability systems were sufficient to digitally transform the organisation.

It was found that management style, management experience, culture, maturity organisational readiness, quality of change management, performance metrics and performance management were all identified as factors of leadership that support the formal accountability systems in digitally transforming the organisation. There was some alignment to the factors identified with that of Frink and Klimoski (2004); Hall and Ferris (2011) with the only commonalities being performance metrics.

Leadership needs to ensure the buy-in of employees by adopting an inclusive approach to the management of the employees in the digital transformation. The sharing of the vision of the digital transformation by leaders with all the employees was seen as critical. The impact of

leaders on influencing buy-in was articulated by Kane et al. (2015). Fitzgerald et al. (2013) discuss the benefits of leaders sharing the vision in order to drive the buy-in for digital transformation.

The construct of "Self-Accountability" was identified as one of the key factors when analysing the constructs that emerged from the interview question attempting to understand if formal accountability systems were sufficient to digital transform the organisation.

It was found that leaders have an expectation that the organisation has a culture of accountability as well as self-accountability for the employees. It was found that informal accountability is needed along with the formal accountability systems whereby an individual takes accountability for their actions. Other systems of accountability such as informal accountability and self-accountability were found to not be sufficient in ensuring accountability on their own and need to be supported by formal accountability systems. This view was supported by Pearson & Sutherland's (2017) who discuss the need for informal accountability systems along with the formal.

6.5.3 Adverse impact of accountability on Digital Transformation

The construct of "Influencing Behaviour" was identified as one of the key factors when analysing the constructs that emerged from the interview question.

The impact of influencing the behaviour of an individual by using rewards and consequences was found. Pearson and Sutherland (2017) discussed the impact of the environment of accountability. This can be done by either blaming or praising an individual which influence the performance of an individual (Pearson & Sutherland, 2017).

A participant stated the importance of aligning accountability across the organisation in order to manage competing priorities. This was verified by Mero et al. (2014) who discusses the importance of accountability in influencing the behaviour of an individual when working in an environment with conflicting priorities.

The need to measure the relevant metrics to drive the desired behaviour to achieve objectives was found. The behaviour of the individual was found to be influenced by the incentives and agents for monitoring which can include measures and metrics (Mero et al., 2014).

A participant expressed the need for servant leadership approach to effectively digitally transform the organisation. Due to the leader being accountable for the outcome, they may be risk averse and hence the need for a servant leadership approach to transform the

organisation. The need to inculcate a culture that is less risk-averse was highlighted by Kane et al. (2015), this risk aversion was found to impact the engagement of the employees as well as leaders.

The construct of "Risk management" was identified as one of the key factors when analysing the constructs that emerged from the interview question.

Accountability was defined as risk mitigation, which was expressed as a contributor to the success of digital transformation. IT was found that digitally mature organisations have a culture that fosters a risk appetite (Kane et al., 2016).

When accountability is in place it was found that one cannot transfer the risk to another individual even if the work is outsourced. The need to take a calculated risk in order to foster innovation as well as an accept failure as a result of the risk however it was expressed that accountability prevents the innovative approach and failure which assist in the digital transformation of the organisation. This impact of risk aversion on an employee was observed by (Kane et al., 2015)

The construct of "Ownership" was identified as one of the key factors when analysing the constructs that emerged from the interview question.

It was found that accountability results in ownership of the digital transformation effort. A positive factor of clarity on ownership due to accountability was found. It was found that accountability should be defined across the organisation and not just on the leaders. The impact of accountability was verified by Pearson and Sutherland (2017) with the help of informal accountability which promotes ownership.

Chapter 7: Conclusion and recommendations

7.1 Principle Findings

It was confirmed that the digital transformation is not about the technology, rather the organisation having to leverage technology to reshape the organisation. It was found that the participants attributed the need to digitally transform to the changing expectation of customers rather than the maturing of technology to deliver value to the organisation. A holistic approach should be followed when considering the elements of the business model of an organisation that needs to be transformed. This includes elements of culture, task people, structure and strategy that are defined in the digital congruence model. There was an emphasis on the capabilities of the people in the organisation with a need to develop the capabilities aligned to the needs of the digital transformation. The impact of automation was found to be important to the digital transformation strategy. There was an emphasis on the need to automate processes There was also a consideration in ensuring the vision of the digital transformation was communicated to the employees in order to drive buy-in and alleviate resistance as well as any assumptions of job loss. Automation was found to augment the job of the employees rather than replace. The customer centricity of the digital transformation strategy was emphasised. The transformation of the organisation occurs externally as well as internally with a focus on the customer. It was found that the emphasis on the customer centricity enabled insights into the customer through data and hence provided the organisation with a competitive advantage.

In order to coordinate efforts towards digital transformation in an organisation, it was found that an issue of clarity exists in the digital transformation strategy. The need for a closer working relationship between IT and business was found. The benefits of an inclusive approach to strategy formulation that leverages technology were identified, thereby eradicating the traditional silos and ensuring cross-functional collaboration within the organisation. The need to integrate the digital strategy with the business strategy was found. Having aligned the strategy into a single unified digital business strategy the need to have clearly stated objectives of the digital transformation strategy by first ensuring the organotin ahs a common understanding of what digital is and the vision of what the organisation would like to achieve.

This enables the organisation to have clear objectives and priorities, enabling them to have improved coordination.

The need for business to take ownership of the digital transformation process was identified. It was also seen as an imperative for buy-in across the entire organisation with a top-down approach to driving ownership across the organisation. There is an inability for organisations to prioritise efforts due to a high demand on the resources who need to focus on the digital transformation strategy as well as the business strategy.

In order to drive digital transformation, it was found that a dedicated function within the organisations needs to be created to ensure prioritization of efforts and focus towards the digital transformation. This was found to create accountability towards the digital transformation of the organisation.

Accountability was found to be attributed to job clarity. The need to have clarity on the roles and responsibilities found to be critical to ensure ownership, commitment as well as accountability for the tasks of the job. The importance of accepting a job or responsibility was found to be of importance to the engagement of the individual or the team. Accountability was found to be driven by incentives and engagement with a focus on the outcome of achieving the task rather than the focus on how the task was achieved. Formal accountability systems were found to be comprised of performance metrics and measures. The importance of measuring the correct metrics that are aligned to the digital transformation efforts was found. Efforts and focus of an individual, when faced with multiple tasks and prioritisation, are impacted by what they are measured on. Hence the behaviour of an individual can be influenced by the metrics that they are being measured on. The benefits of providing the individual with clarity on what they are being measured on also promote ownership of the given tasks. The factors of System of performance (rewards), System of compliance (consequences) were attributed to formal accountability systems. It was found that the formal accountability systems impact the behaviour of individuals towards digital transformation. The importance of formal accountability processes was found to have an influence on the engagement of individuals. The processes enable the engagement of employees across functional lines.

In the context of digital transformation, it was found that accountability had an impact on the digital transformation as well as digital transformation having an impact on accountability. The latter is made possible by the implementation of technology solutions centred around data thereby creating transparency and improved insight. This leads to the accountability of the individual. The importance of having clarity of purpose and defined roles and responsibilities to assist the individual in improving performance towards digital transformation. It was seen as imperative to align the accountability and the role of the individual with the digital

transformation objectives. A culture that encourages rewards and risk-taking that creates an environment where it is safe to fail assists in the digital transformation efforts.

The importance of rewards, incentives and consequences in drive the accountability of the individual towards digital transformation was found to be important. The structure of the rewards systems needs to be aligned with the objectives of the digital transformation strategy. The need for consequences was found to have equal importance as that of rewards when considering digital transformation with consequences enabling the leaders to drive the success of the of the digital transformation. A balance between consequences and rewards needs to be in place.

Formal accountability was found to have an impact on the digital transformation of the organisation due to the increased measurement of the individual. The role of the leader in supporting and executing the formal accountability system fairly was seen as essential in impacting the efforts towards digital transformation. Although individuals are inherently accountable the need for monitoring of the individuals was found. Factors of leadership that support the formal accountability systems were identified as management style, management experience, culture, maturity organisational readiness, quality of change management, performance metrics and performance management. The importance of the role leadership plays in ensuring buy-in by adopting an inclusive approach to management was identified. Leaders need to foster both formal and informal accountably to ensure individuals take accountability for their actions.

Although Strategy and Culture were not explicitly revealed as key constructs, they were found as a common thread across all the elements of research for digital transformation and accountability.

The adverse impact of accountability on digital transformation was found. The impact of influencing the behaviour by using rewards and consequences was found. If accountability is not aligned to the digital transformation, will focus efforts towards the set accountability. Digitally mature organisations have a culture that fosters risk. The importance of an individual who is accountable for a particular task or function not being able to transfer the risk was found. Accountability results in the ownership of efforts toward digital transformation across the organisation.

7.2 Recommendations for Management

The recommendation to managers that were informed by the findings in chapters 5 and chapter 6 provides valuable insights into the experiences of executives that have been or that have already gone through the digital transformation process for an organisation. Building on this business experience the research is grounded in the body of theoretical knowledge of extensive research conducted by academia in chapter 2 that was contextualised to the findings of chapter 5. The digital transformation of an organisation can prove to be challenging and based on the research it was found that the success of the digital transformation could be improved by ensuring accountability within the organisation. The key findings are listed below.

- The importance of collaboration between IT and business to work as a cross-function team that derives a value for the entire organisation is recommended.
- Defining and having a common understanding of digital transformation.
- The creation of an overarching digital business strategy that incorporates IT and business strategies into a single unified strategy with clearly defined objectives
- A common theme across the entire research was the need for alignment. It is recommended that the digital congruence model is used to guide the alignment of digital transformation efforts.
- The creation of a dedicated team within the organisation with primary responsibilities towards digital transformation is imperative along with clearly defining the roles and responsibilities
- To aid the digital transformation efforts of the dedicated team and the rest of the organisation, performance metrics, rewards and consequences to be set in accordance with the digital business strategy.
- Buy-in of all employees, including the leaders, is imperative to ensure the success of the digital transformation

7.3 Recommendations for Future Research

It is suggested that future research take the below into consideration:

- Develop a model of digital transformation with factors of accountability
- Test the validity of the research by conducting a quantitative study
- Identify if the factors in the system of accountability developed by Pearson and Sutherland (2017), which recognises the main drivers that hold individuals accountable for their performance are valid in the context of increasing the success of the digital transformation

- Develop deeper insights into the impact of informal accountability on the digital transformation of the organisation.

7.4 Research limitations

- In hindsight, the further probing of the participants of the interviews would have added further richness to the collection of data.
- All participants in the interview held senior positions in the organisation or were consultants, more insights can be gained by using a sample that is representative of the various levels of hierarchy within the organisation
- The sample comprised experts, CEO's, directors and other such high-powered individuals. The researcher did not seek to broaden the population and include individuals in lower tiers in an organisation. Thus, the perspective of this group is outstanding.
- Most of the interviews were conducted telephonically, which could potentially lack the richness of gathering data from a face to face interview.

References

Andriole, S. J. (2017). Five Myths About Digital Transformation. *MIT Sloan Management Review*, *58*(3), 20–22. https://doi.org/http://dx.doi.org/10.1108/17506200710779521

Auguste, J. (2013). Applying Kotters 8-Step Process for Leading Change to the Digital Transformation of an Orthopedic Surgical Practice Group in Toronto, Canada. *Journal of Health & Medical Informatics*, *04*(03), 10–13. https://doi.org/10.4172/2157-7420.1000129

Bandura, A. (1977). Self-Efficacy: Toward a Unifying Theory of Behavioral Change. *The Psychological Review*, *84*, 191–215. https://doi.org/http://dx.doi.org/10.1016/0146-6402(78)90002-4

Bennis, W. (2013). Leadership in a Digital World: Embracing Transparency and Adaptive Capacity. *MIS Quarterly*, *37*(2), 635–636. Retrieved from http://0-search.ebscohost.com.umhblib.umhb.edu/login.aspx?direct=true&db=bth&AN=87371395&site=ehost-live%5Cnhttp://0-content.ebscohost.com.umhblib.umhb.edu/ContentServer.asp?T=P&P=AN&K=87371395&S=R&D=bth&EbscoContent=dGJyMNHX8kSep684yOvsOLCmr06ep65Ss6y4Sr

Bharadwaj, A., El Sawy, O. A., Pavlou, P. A., & Venkatraman, N. (2013). Digital Business Strategy: Toward A Next Generation Of Insights. *MIS Quarterly: Digital Business Strategy*, *37*(2), 471–482. Retrieved from http://ssrn.com/abstract=2742300

Bovens, M. (2007). Analysing and Assessing Accountability: A Conceptual Framework. *Ssrn*, *13*(4), 447–468. https://doi.org/10.1111/j.1468-0386.2007.00378.x

Brandsma, G. J., & Schillemans, T. (2012). The Accountability Cube : Measuring Accountability. *Journal of Public Administration Research and Theory*, 953–975. https://doi.org/10.1093/jopart/mus034

Chang, W., Atanasov, P., Patil, S., Mellers, B. A., & Tetlock, P. E. (2017). Accountability and

adaptive performance under uncertainty: A long-term view. *Judgment and Decision Making*, *12*(6), 610–626. Retrieved from http://journal.sjdm.org/17/17630/jdm17630.pdf

Chen, A., Lu, Y., & Wang, B. (2017). Customers' purchase decision-making process in social commerce: A social learning perspective. *International Journal of Information Management*, *37*(6), 627–638. https://doi.org/10.1016/j.ijinfomgt.2017.05.001

Creswell, J. W. (2014). *Research Design. SAGE Publications, Inc.* (4th ed.).

Eisenhard, K. M. (1989). Agency Theory: An Assessment and Review. *Academy of Management Review*, *14*(1), 57–74. https://doi.org/10.2307/258191

Fitzgerald, M., Kruschwitz, N., Bonnet, D., & Welch, M. (2013). *Embracing Digital Technology: A New Strategic Imperative. MIT Sloan Management Review*. Retrieved from http://sloanreview.mit.edu/projects/embracing-digital-technology?switch_view=PDF

Frink, D. D., & Klimoski, R. J. (2004). Advancing accountability theory and practice: Introduction to the human resource management review special edition. *Human Resource Management Review*, *14*(1), 1–17. https://doi.org/10.1016/j.hrmr.2004.02.001

Gerow, J. E., Grover, V., Thatcher, J., & Roth, P. L. (2014). Looking Toward the Future of IT-Business Strategic Alignment through the Past: A Meta-Analysis. *MIS Quarterly*, *38*(4), 1059–1085. https://doi.org/10.25300/MISQ/2014/38.4.10

Gerow, J. E., Thatcher, J. B., & Grover, V. (2015). Six types of IT-business strategic alignment: An investigation of the constructs and their measurement. *European Journal of Information Systems*, *24*(5), 465–491. https://doi.org/10.1057/ejis.2014.6

Gregory, R. W., Keil, M., Muntermann, J., & Mähring, M. (2015). Paradoxes and the nature of ambidexterity in IT transformation programs. *Information Systems Research*, *26*(1), 57–80. https://doi.org/10.1287/isre.2014.0554

Grover, V., & Kohli, R. (2013). Revealing Your Hand: Caveats in Implementing Digital Business Strategy. *MIS Quarterly*, *37*(2), 655–663. https://doi.org/https://dl.acm.org/citation.cfm?id=2535679

Hall, A. T., Blass, F. R., Ferris, G. R., & Massengale, R. (2004). Leader reputation and accountability in organizations: Implications for dysfunctional leader behavior. *Leadership Quarterly*, *15*(4), 515–536. https://doi.org/10.1016/j.leaqua.2004.05.005

Hall, A. T., & Ferris, G. R. (2011). Accountability and Extra-Role Behavior. *Employee Responsibilities and Rights Journal*, *23*(2), 131–144. https://doi.org/10.1007/s10672-010-9148-9

Hall, A. T., Frink, D. D., & Buckley, M. R. (2017). An accountability account: A review and synthesis of the theoretical and empirical research on felt accountability. *Journal of Organizational Behavior*, *38*(2), 204–224. https://doi.org/10.1002/job.2052

Hess, T., Benlian, A., Matt, C., & Wiesböck, F. (2016). Options for Formulating a Digital Transformation Strategy. *MIS Quarterly Executive*, *15*(2), 123–139.

Ieraci, S. (2007). Responsibility versus accountability in a risk-averse culture. *Emergency Medicine Australasia*, *19*(1), 63–64. https://doi.org/10.1111/j.1742-6723.2006.00935.x

Joannides, V. (2012). Accounterability and the problematics of accountability. *Critical Perspectives on Accounting*, *23*(3), 244–257. https://doi.org/10.1016/j.cpa.2011.12.008

Kane, G. C. (2015). How Digital Transformation Is Making Health Care Safer, Faster and Cheaper. *MIT Sloan Management Review*, *57*(1), 41–47. Retrieved from http://search.ebscohost.com/login.aspx?direct=true&db=bth&AN=110208946&site=ehost-live%5Cnhttp://sloanreview.mit.edu/article/how-digital-transformation-is-making-health-care-safer-faster-and-cheaper/%5Cnhttp://search.proquest.com/docview/1719450633?accoun

Kane, G. C., Palmer, D., Philips Nguyen, A., Kiron, D., & Buckley, N. (2015). *Strategy, Not Technology, Drives Digital Transformation. MIT Sloan Management Review & Deloitte*. https://doi.org/http://www2.deloitte.com/content/dam/Deloitte/cn/Documents/technology-media-telecommunications/deloitte-cn-tmt-strategy-not-technology-drive-digital-transformation-en-150930.pdf

Kane, G. C., Palmer, D., Phillips, A. N., Kiron, D., & Buckley, N. (2016). Aligning the Organization for Its Digital Future. *MITSloan Management Review*, (58180), 1–29.

Karimi, J., & Walter, Z. (2015). The role of dynamic capabilities in responding to digital disruption: A factor-based study of the newspaper industry. *Journal of Management Information Systems*, *32*(1), 39–81. https://doi.org/10.1080/07421222.2015.1029380

Kotter, J. P. (2007). Leading change: Why transformation efforts fail. *Harvard Business Review*, *85*(1), 96–103. https://doi.org/10.1109/EMR.2009.5235501

Laird, M. D., Harvey, P., & Lancaster, J. (2015). Accountability, entitlement, tenure, and satisfaction in Generation Y. *Journal of Managerial Psychology*, *30*(1), 87–100. https://doi.org/10.1108/JMP-08-2014-0227

Lerner, J. S., & Tetlock, P. E. (1999). Accounting for the effects of accountability. *Psychological Bulletin*, *125*(2), 255–275. https://doi.org/10.1037/0033-2909.125.2.255

Li, L., Su, F., Zhang, W., & Mao, J. Y. (2017). Digital transformation by SME entrepreneurs: A capability perspective. *Information Systems Journal*, (March), 1–29. https://doi.org/10.1111/isj.12153

Li, W., Liu, K., Belitski, M., Ghobadian, A., & O'Regan, N. (2016). e-Leadership through strategic alignment: An empirical study of small- and medium-sized enterprises in the digital age. *Journal of Information Technology*, *31*(2), 185–206. https://doi.org/10.1057/jit.2016.10

Lucas, H. C., & Goh, J. M. (2009). Disruptive technology: How Kodak missed the digital photography revolution. *Journal of Strategic Information Systems*, *18*(1), 46–55. https://doi.org/10.1016/j.jsis.2009.01.002

Majchrzak, A., Markus, M. L., & Wareham, J. (2016). Designing for digital transformation: Lessons for information systems research from the study of ICT and societal challenges. *MIS Quarterly*, *40*(2), 267–278.

Matt, C., Hess, T., & Benlian, A. (2015). Digital Transformation Strategies. *Business and Information Systems Engineering*, *57*(5), 339–343. https://doi.org/10.1007/s12599-015-0401-5

McConnell, J. (2015). The Company Cultures That Help (or Hinder) Digital Transformation. *Harvard Business Review*, 1–6. Retrieved from https://hbr.org/2015/08/the-company-cultures-that-help-or-hinder-digital-transformation

McGrath, S. K., & Whitty, S. J. (2018). Accountability and responsibility defined. *International Journal of Managing Projects in Business*, *11*(3), 687–707. https://doi.org/10.1108/IJMPB-06-2017-0058

Mero, N. P., Guidice, R. M., & Werner, S. (2014). A Field Study of the Antecedents and Performance Consequences of Perceived Accountability. *Journal of Management*, *40*(6), 1627–1652. https://doi.org/10.1177/0149206312441208

Mithas, S., Tafti, A., & Mitchell, W. (2013). How a Firm's Competitive Environment and Digital Strategy Posture Influence Digital Business Strategy. *MIS Quarterly*, *37*(2), 511–536. https://doi.org/10.1257/jel.50.4.1051

Nadeem, A., Abedin, B., Cerpa, N., & Chew, E. (2018). Editorial: Digital transformation & digital business strategy in electronic commerce - The role of organizational capabilities. *Journal of Theoretical and Applied Electronic Commerce Research*, *13*(2), i–viii.

https://doi.org/10.4067/S0718-18762018000200101

Passyn, K., & Sujan, M. (2006). Self-Accountability Emotions and Fear Appeals: Motivating Behavior. *Journal of Consumer Research*, *32*(4), 583–589. https://doi.org/10.1086/500488

Pearson, H., & Sutherland, M. (2017). The complexity of the antecedents influencing accountability in organisations. *European Business Review*, *29*(4), 419–439. https://doi.org/10.1108/EBR-08-2016-0106

Roch, S. G., & McNall, L. A. (2007). An investigation of factors influencing accountability and performance ratings. *Journal of Psychology: Interdisciplinary and Applied*, *141*(5), 499–523. https://doi.org/10.3200/JRLP.141.5.499-524

Roepke, R., Agarwal, R., & Ferratt, T. W. (2000). Aligning the IT Human Resource with Business Vision: The Leadership Initiative at 3M. *MIS Quarterly*, *24*(2), 327. https://doi.org/10.2307/3250941

Ross, J. W., Sebastian, I. M., & Beath, C. M. (2016). How to create a great digital strategy. *CISR Research Briefing*, *16*(3), 1–4.

Rus, D., van Knippenberg, D., & Wisse, B. (2012). Leader power and self-serving behavior: The Moderating Role of Accountability. *Leadership Quarterly*, *23*(1), 13–26. https://doi.org/10.1016/j.leaqua.2011.11.002

Saunders, M., & Lewis, P. (2012). *Doing Research in Business & Management*. Essex: Pearson Education Limited.

Saunders, M., Lewis, P., & Thornhill, A. (2009). *Research Methods for Business Students* (5th ed.). Essex: Pearson Education Ltd. https://doi.org/10.1007/s13398-014-0173-7.2

Sebastian, I. M., Ross, J. W., Beath, C., Mocker, M., Moloney, K. G., & Fonstad, N. O. (2017).

How Big Old Companies Navigate Digital Transformation. *MIS Quarterly Executive*, *16*(3), 197–213. Retrieved from http://misqe.org/ojs2/index.php/misqe/article/viewFile/783/468

Setia, P., Venkatesh, V., & Joglekar, S. (2013). Leveraging Digital Technologies: How Information Quality Leads to Localized Capabilities and Customer Service Performance. *MIS Quarterly*, *37*(2), 565–590. https://doi.org/10.25300/MISQ/2013/37.2.11

Sinclair, A. (1995). The chameleon of accountability: Forms and discourses. *Accounting, Organizations and Society*, *20*(2–3), 219–237. https://doi.org/10.1016/0361-3682(93)E0003-Y

Singh, A., & Hess, T. (2017). How Chief Digital Officers Promote the Digital Transformation of their Companies. *MIS Quarterly Executive*, *16*(1), 1–17.

Turusbekova, N., Broekhuis, M., Emans, B., & Molleman, E. (2007). The Role of Individual Accountability in Promoting Quality Management Systems. *Total Quality Management & Business Excellence*, *18*(5), 471–482. https://doi.org/10.1080/14783360701239917

Westerman, G. (2016). Why Digital Transformation Needs a Heart. *MITSloan Management Review*, *58*(1), 19–21. https://doi.org/http://dx.doi.org/10.1108/17506200710779521

Westerman, G., & Bonnet, D. (2015). Revamping Your Business Through Digital Transformation. *MIT Sloan Management Review*, *56*(3), 10–13. https://doi.org/10.1108/10878571211209314

Westerman, G., Calméjane, C., Bonnet, D., Ferraris, P., & McAfee, A. (2011). Digital Transformation: A Road-Map for Billion-Dollar Organizations. *MIT Center for Digital Business and Capgemini Consulting*, 1–68.

Wulf, J., Mettler, T., & Brenner, W. (2017). Using a Digital Services Capability Model to Assess Readiness for the Digital Consumer. *MIS Quarterly Executive*, *16*(3), 171–195. Retrieved

from http://misqe.org/ojs2/index.php/misqe/article/viewFile/698/466

Yeow, A., Soh, C., & Hansen, R. (2018). Aligning with new digital strategy: A dynamic capabilities approach. *Journal of Strategic Information Systems*, *27*(1), 43–58. https://doi.org/10.1016/j.jsis.2017.09.001

Appendices

Appendix 1: Ethical Clearance Letter

Gordon Institute of Business Science
University of Pretoria

14 June 2018

Rao Varun

Dear Varun

Please be advised that your application for Ethical Clearance has been approved.

You are therefore allowed to continue collecting your data.

Please note that approval is granted based on the methodology and research instruments provided in the application. If there is any deviation change or addition to the research method or tools, a supplementary application for approval must be obtained

We wish you everything of the best for the rest of the project.

Kind Regards

GIBS MBA Research Ethical Clearance Committee

Appendix 2: Interview Questionnaire

Research Title: Increasing the success of digital transformation through increased accountability

Name	
Job title	
Organisation	
Date	
Start time	
End time	

I would like to thank you for taking the time out to meet with me. Your inputs and knowledge in this research are highly appreciated as well.

The research I am undertaking seeks to explore if increasing accoutnabilty would lead to increasing the success of digital transformation of an organisation.

In order to get a deeper understanding of the research, I wish to understand:

- Do companies undergoing digital transformation have a clear and coherent digital business strategy?
- Are strategic, leadership and cultural factors influential in the digital transformation of an organisation?
- Does an increased level of accountability escalate the likelihood of the success of digital transformation in an organisation?
- Do formal accountability systems need to be supported by informal accountability systems to drive performance for digital transformation?

I would encourage you to speak freely as confidentiality will be maintained at all times, including keeping your identity anonymous.

At the outset, may I request you to sign the consent form. I would also need your approval to use an audio recording device through this interview.

Interview Questions

1. What do you understand about the concept of a digital transformation strategy?
2. How do companies undergoing digital transformation ensure that they have a clear and coherent digital transformation strategy
3. How are conflicting priorities between the digital transformation strategy and other business strategies managed?
4. What are the key factors that help drive the success of your organisation's digital transformation and why do you believe the identified factors to be critical to its success?
5. What factors proven to be a stumbling block in transforming the business and how did they negatively impact transformation?
6. What is understood by the term accountability?
7. How could accountability results in the increase in the individual's performance towards the digital transformation of the organisation?
8. What is your understanding of formal accountability systems and how do you feel they are implemented in the organisation?
9. Are formal accountability systems sufficient to digitally transform the organisation?
10. What are the positive and negative factors of accountability that affect the outcome of the digital transformation of the organisation?

Participant Signature _____

Date: _____

Researcher Signature_____

Date: _____

COPYRIGHT DECLARATION

Student details

Surname:	Rao	Initials:	V
Student number:	17386544		
Email:	17386544@mygibs.co.za		
Phone:	072 611 4699		

Qualification details

Degree:	MBA	Year completed:	2018
Title of research	Increasing the success of digital transformation through increased accountability		
Supervisor:	Hayley Pearson		
Supervisor email:	pearsonh@gibs.co.za		

Access

Please select

A.

X	My research is not confidential and may be made available in the GIBS Information Centre and on UPSpace.

I give permission to display my email address on the UPSpace website

Yes		X		No		

B.

	My research is confidential and may **NOT** be made available in the GIBS Information Centre nor on UPSpace.

Please indicate embargo period requested

Two years		Please attach a letter of motivation (signed by yourself and your supervisor) to substantiate your request. Embargo will not be granted in the absence of a letter.
Permanent		Permission from the Vice-Principal: Research and Postgraduate Studies at UP is required for permanent embargo. Please attach a copy permission letter. Without a letter permanent embargo will not be granted.

Copyright declaration

I hereby declare that I have not used unethical research practices nor gained material dishonesty in this electronic version of my research submitted. Where appropriate, written permission statement(s) were obtained from the owner(s) of third-party copyrighted matter included in my research, allowing distribution as specified below.

I hereby assign, transfer and make over to the University of Pretoria my rights of copyright in the submitted work to the extent that it has not already been affected in terms of the contract I entered into at registration. I understand that all rights with regard to the intellectual property of my research, vest in the University who has the right to reproduce, distribute and/or publish the work in any manner it may deem fit.

Signature:	**Date:** 2018 – 11 – 05
Supervisor signature: _H. Pearson_	**Date:** 2018 – 11 – 05

CERTIFICATION OF ADDITIONAL SUPPORT

(Additional support retained or not - to be **completed by all students)**

Please note that failure to comply and report on this honestly will result in disciplinary action

I hereby certify that (please indicate which statement applies):

- *I DID NOT RECEIVE any additional/outside assistance (i.e. statistical, transcriptional, thematic, coding, and/or editorial services) on my research report:*

- *I RECEIVED additional/outside assistance (i.e. statistical, transcriptional, thematic, coding, and/or editorial services) on my research report:* ☑

If any additional services were retained– *please indicate below which:*

□ *Statistician*

□ *Coding (quantitative and qualitative)*

☑ *Transcriber*

□ *Editor*

Please provide the name(s) and contact details of all retained:

NAME: …Belinda Inez……………………………………………………………………....
EMAIL ADDRESS: ...info@transcriptionservices.co.za

CONTACT NUMBER: ……0835142488………..……………………………………………
TYPE OF SERVICE: ………Transcription……………………………………………………

I hereby declare that all *interpretations (statistical and/or thematic) arising from the analysis; and write-up of the results for* **my study was completed by myself without outside assistance**

NAME OF STUDENT: Varun Rao

SIGNATURE:

STUDENT NUMBER: 17386544

STUDENT EMAIL ADDRESS: 17386544@mygibs.co.za