The contribution of IT-enabled dynamic capabilities towards social entrepreneurship business models

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ABSTRACT

The coronavirus disease 2019 (COVID-19) pandemic enduringly affected the world; its implication on society will have long-lasting adverse effects. The pandemic allowed social entrepreneurs to form strategic partnerships, develop innovative solutions, and replicate at scale to advance social influence (Lumpkin & Bacq, 2019). Social enterprises require dynamic capabilities to provide renewal capability, continuous exploration of opportunities for innovation, and improvement of practices to remain competitive and achieve long-term commitment to its social mission (Mikalef & Pateli, 2017). Adducing the social entrepreneurship (SE) business model theory and IT-enabled dynamic capabilities (ITDCs) theory, this study aimed to understand the contribution of IT-enabled dynamic capabilities to social entrepreneurship business models. A qualitative study was conducted. Data were collected and analysed from 11 in-depth interviews with experienced senior executive, managerial, and specialist levels in social enterprises across industries. The research findings support the extant body of literature, therefore, providing a solid theoretical support in ITDCs and SE business models. Little is known about the strategical influence of ITDCs on social enterprises and their business model decisions. The influence of factors is yet to be understood. These aspects include the strategic business orientation of social enterprises, legal and compliance framework, demographic dividend, the appointment of a chief information officer (CIO), the digital maturity of social enterprises and their environment, and the COVID-19 global crisis. This research contributes in multiple ways. It supports to the extant literature on ITDCs and SE business models. The study contributes to the social enterprises in understanding how ITDCs can be leveraged to improve organisational performance, strengthen social mission position, ways to overcome institutional barriers, and improve SE market participation, upscale social influence, and enhance business relevance for their long-term sustainability and growth.

Keywords: IT-enabled dynamic capabilities, social entrepreneurship, business models, information technology (IT) capabilities, information technology (IT) infrastructure, information technology (IT) resources, social enterprises

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 Philosophy in Corporate Strategy 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.

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Thandi Ntsane   Signature

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LIST OF ACRONYMS AND ABBREVIATIONS

ANSES	African Network of Social Entrepreneurship Scholars
COVID-19	Coronavirus Disease 2019
CIO	chief information officer
DCs	dynamic Capabilities
FPOs	for-profit organisations
GEM	Global Entrepreneurship Monitor
IT	information technology
ITDCs	IT-enabled dynamic capabilities
NGOs	non-government organisations
NPOs	non-profit organisations
RBV	resource-based view
SE	social entrepreneurship
RQ	research question
Wi-Fi	Wireless Fidelity

CHAPTER 1: INTRODUCTION TO THE RESEARCH PROBLEM

1.1   Background to the Research Problem

Social entrepreneurship (SE) is a unique, powerful, and valuable phenomenon to solve the multitude and increasing complexity of social, environmental, and economic challenges encountered globally (Bacq & Lumpkin, 2021; Gandhi & Raina, 2018; Mair, 2020). The conceptualisation of SE is based on the specific context, target outcomes, and features (Gandhi & Raina, 2018). It is characterised by generating economic profit as an avenue to solve social problems (Bacq & Lumpkin, 2021; Mair, 2020). It is often driven by the desire to ease social ills, such as cultural marginalisation, inequality, economic exclusion, poverty, unemployment, and entrepreneurial interventions in social innovation to provide sustainable solutions (Lumpkin & Bacq, 2019; Bacq, Geoghegan, Josefy, Stevenson, & Williams, 2020; Muñoz & Cohen, 2017).

Social entrepreneurship can be initiated at an individual level by social entrepreneurs regarded as change agents to better society and at an organisational level by social enterprises applying market-related strategies. These are driven by the defined socio-economic vision to self-sustain while achieving social change (Bacq et al., 2020). Social entrepreneurs continually strive to accomplish hybrid intentions—joint social and commercial intentions but experience vast challenges hindering social influence (Gupta, Chauhan, Paul, & Jaiswal, 2020; Battilana, Sengul, Pache & Model, 2015).

Adducing their hybridity, the SE business models often have conflicting institutional logic between the for-profit and not-for-profit missions depending on the beneficiaries defined (Battilana, 2018; Battilana, Sengul, Pache & Model, 2015; Cherrier, Goswami, & Ray, 2018). This created challenges in how social enterprises can adopt suitable legal forms with a low risk of social mission drift while self-sustaining and creating social wealth (Bacq & Lumpkin, 2021). In the resource-based observation (RBV) literature, Bacq and Eddleston (2016) remark that a social enterprise's social influence scale depends on its dynamic capabilities, stakeholder engagement, and government assistance level while self-sustaining through income generation and maintaining competitive advantage.

According to Muñoz and Kibler (2016), a dual mission drives SE business models. They accomplish an optimal ITDC portfolio configuration to leverage the ITDCs value contribution based on strategic fitness (Majhi, Anand, Mukherjee, & Rana, 2021). El Sawy and Pavlou (2008) acknowledged that in more unstable economic settings, the IT-enabled capabilities become vital in their influence on the competitive and strategic

advantage of organisations. Mikalef, Pateli, and Van De Wetering (2020) contend that ITDCs are an antecedent for competitive advantage under volatile market conditions. Adducing from the ITDCs perspective, Felipe, Leidner, Roldán, and Leal-Rodríguez (2019) indicate that IT capabilities influence organisational performance positively through the facilitation of organisational ability.

1.2 Research Problem

1.2.1 Business Need

The devastating influence of the COVID-19 pandemic caused an extensive crisis, leaving the social, health, and global economic state in shambles (Bacq & Lumpkin, 2021). The effect on the global levels of entrepreneurial activity and the influence on economies becomes a priority and concern in such unique cases (Mair, 2020). According to the Global Entrepreneurship Monitor (GEM) 2021 report, the lessons learnt from the 2008 global fiscal crisis identified entrepreneurial activity as crucial to driving economic recovery post the domino effect caused (Bosma et al., 2021). Entrepreneurship is crucial in uniting communities. The COVID-19 aftermaths present a diverse and challenging scenario for entrepreneurs, resulting in the disruption and permanent change. Opportunities to recover and develop are often determined by the most entrepreneurial economies presenting new opportunities for investors.

The overwhelming and persistent complex social ills of global complications and the COVID-19 crisis impeded societies more than ever. A UN study concluded that poverty is inclined to rise emanating from the COVID-19 crisis, therefore, threatening the 2030 United Nations Sustainable Development Goals (SDGs) for terminating poverty (Sumner, Hoy, & Ortiz-Juarez, 2020). This further elevated the demand for SE intervention to converse urgent social needs from the crisis (OECD, 2021).

Traditionally, government institutions were crucial in social and economic development; however, they underperformed because of financial obligations and slow growth challenges. SE was gradually recognised for its ability to navigate the interactions among commercial markets, government, and institutions to better the world (Bacq & Lumpkin, 2021). The OECD identified SE to advance sustainable social development. Social enterprises are recognised as strategic partners to governments to achieve the UN 2030 agenda (United Nations, 2020). According to GEM (2021), more significant informal economic opportunities exist for entrepreneurship in developing economies owing to lesser restrictions. South Africa is recognised as a developing market based on

education, lifestyle, organisational structure, and technology adoption (Myres, Mamabolo, Mugudza, & Jankelowitz, 2017).

Bosma et al. (2021) further emphasise the economic lockdown prompted significant emerging digital business prospects. The uptake of e-commerce platforms, which increased customer contact time with businesses, is rising, therefore, improving market access. The readiness to adopt technology and leverage information technology (IT) capabilities as an entrepreneurial response to the pandemic will increase collaborative practice within social enterprise networks (Kovanen, 2021).

In recent years, technological advancements affected all aspects of human life in society (Ashoka, 2019). While historically, social influence was secondary to the aims of commercialisation and profit generation. Social entrepreneurs explored opportunities to harness technology, aiming to increase the success of social ventures while achieving positive social influence. Social entrepreneurs effectively leveraging IT are progressing beyond digital literacy, intensifying stakeholder involvement, influencing perceptions and opinions of the vulnerable and marginalised in society while effectively communicating results (Ashoka, 2019).

1.2.2   Theoretical Relevance and Contribution

The SE business models and SE dynamic capabilities are poorly understood, and the research themes remain underdeveloped. The extant literature displays evidence of independent and unlinked concepts by research conducted at multiple levels and various units of analysis (Saebi, Foss, & Linder, 2018). Gupta, Chauhan, Paul, and Jaiswal (2020) emphasise that while researchers expressed great interest in studying SE business models, a research opportunity exists for enhancement through examining IT adoption in SE business models to enrich their value proposition.

Social enterprises require dynamic capabilities to provide renewal capability, continuous exploration of opportunities for innovation, and improvement of practices to remain competitive and achieve long-term commitment to its social mission (Mikalef & Pateli, 2017). Teece (2018) stressed the interdependence of business strategy, dynamic capabilities, and business models on each other to generate competitive advantage. Teece (2018) defined a business model as a design of how an organisation generates and delivers customer value, including the instruments used for value capture. Mikalef, Pateli, and Van De Wetering (2020) contend that ITDCs are an antecedent for competitive advantage under volatile market conditions. The ITDCs contribution and

implications on social value creation, which constitutes a part of the SE business models, still requires further investigation (Van De Wetering & Maaike, 2021). Additional effort in understanding the contribution of ITDCs to SE business models, therefore, has theoretical relevance.

Drawing on existing research in SE, some researchers (Vézina, Selma, and Malo, 2019; Ince and Hahn, 2020) attempted to explore numerous DCs of SEs; however, a single integrated, coherent framework of DCs in SE remains outstanding. Benitez, Ray, & Henseler (2018) reveals that ITDCs and organisational DCs have various order levels in influencing business models. The contextual and environmental factors affecting the propensity of IT capabilities to create business value are still poorly understood (Felipe, Leidner, Roldán, & Leal-Rodríguez, 2019).

The COVID-19 global crisis provided social entrepreneurs opportunities to form strategic partnerships, develop innovative solutions, and expand influence (Lumpkin & Bacq, 2019). Bacq and Lumpkin (2021) have a result that revealed a call of researchers to investigate which capabilities would assist social entrepreneurs to swiftly organise resources to address extensive social catastrophes, such as the COVID-19 global pandemic?

1.3   Research Aim and Research Question

This study is set out to understand the contribution of ITDCs towards SE business models. The understanding of the theoretical divergences identified and the business relevance cited, therefore, motivated the research question: How do ITDCs contribute towards SE business models? The primary research question is expanded into the respective research sub-questions:

- RQ1: How are resources and capabilities used for IT enablement of dynamic capabilities in SE business models?
- RQ2: How do SE business models address IT-related challenges and opportunities?
- RQ3: How do ITDCs influence SE business models?

1.4   Research Scope

The research project is restricted to the SE context and ITDCs and SE business models as the primary theoretical constructs of focus. ITDCs was defined as the ability of the organisations to exploit its IT assets, resources and competencies complemented by

organisational resources and capabilities to address the effects of a highly evolving economic setting (Mikalef, Pateli, & Van De Wetering, 2016) deployed strategically to achieve sustainable competitive advantage (Van De Wetering & Besuyen, 2021).

SE Business models play a crucial role in creating and delivering value to contribute to the social mission (Zahra & Wright, 2016). Social enterprises are expected to adopt business models that employ innovative means to solve chronic social challenges with limited and disparate resources to create social value (Zahra & Wright, 2016). Researchers conceptualised the design of business models to possess critical components, which include value creation, value proposition and value capture, respectively and are designed into numerous institutional logic (Laasch, 2018; HladyRispal & Servantie, 2016; Muñoz & Kibler, 2016) driven by a defined social mission of an organisation.

Providing scope restrictions, it is envisaged that the study will yield rich insights on ITDCs contribution towards SE business models and generate implications for crucial stakeholders, such as social entrepreneurs, senior management in social enterprises, significant technology industry players, and policymakers.

1.5   Structure of the Research Report

This section outlines the structure of the research report. Chapter 1 sets out the research problem, the business need, theoretical relevance of the research, research aim, and scope. Chapter 2 presents the literature review of the ITDCs and business model's theoretical constructs in the SE context and theoretical analysis of the extant literature stipulating the research gap. Chapter 3 presents the primary research questions and expanded research sub-questions motivated by the literature review. Chapter 4 presents the research methodology indicating the research design, data collection, and analysis.

Chapter 5 outlines the research findings, grouped into themes derived from the patterns of data collected. The research findings were further clustered into categories motivated by the theoretical constructs acknowledged in the literature review. Chapter 6 analyses the findings and research outcomes compared with the extant literature. Chapter 7 presents the primary research conclusions, research implications, research contributions, recommended areas for further research, and limitations.
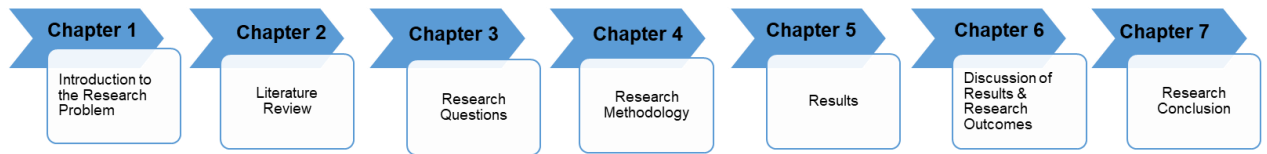
Figure 1

Research Report Structure

Source: Researcher's compilation

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This chapter presents and analyses the extant literature to describe and evaluate crucial research themes and concepts related to SE, business models and ITDCs. Figure 2 provides the structural outline of the literature review based on the crucial themes and constructs discussed.
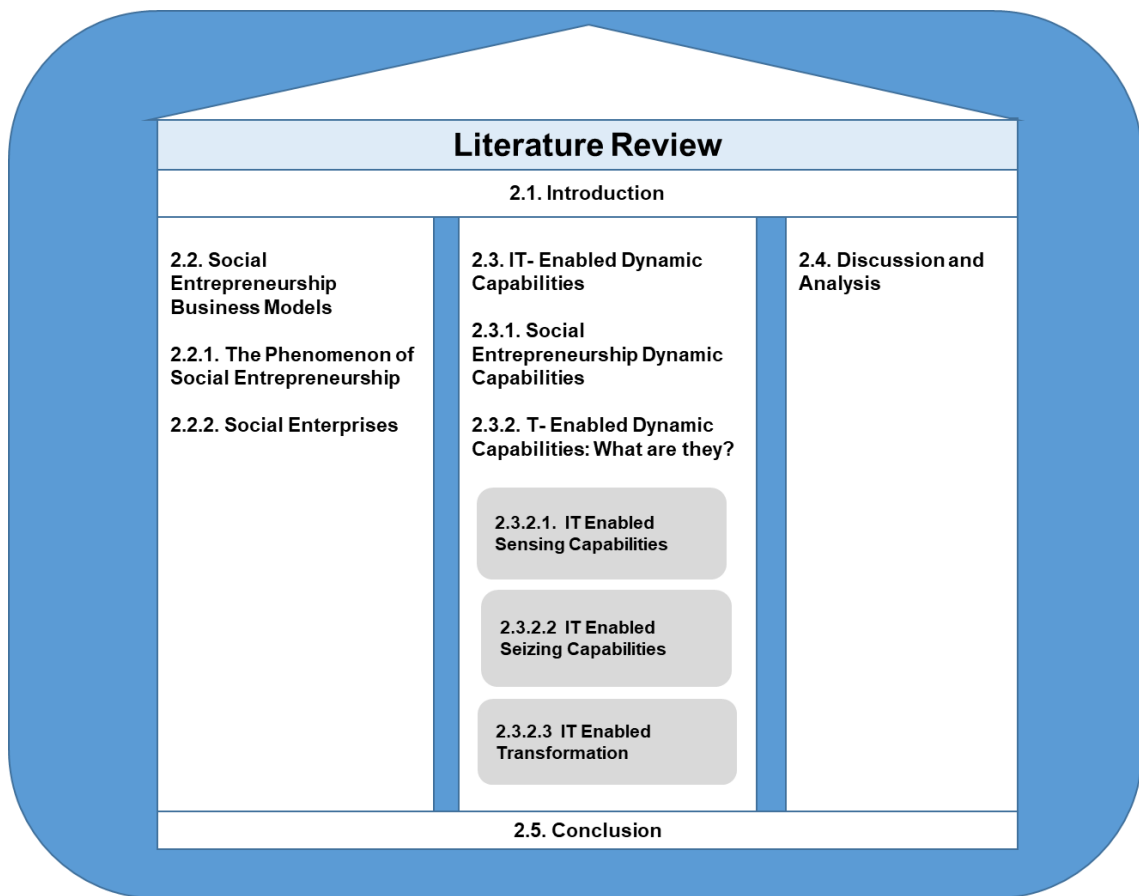
Figure 2

Literature Review Structural Outline

Source: Researcher's compilation.

2.2　Social Entrepreneurship Business Models

2.2.1　The Phenomenon of Social Entrepreneurship

The SE phenomenon is an area of study of fast-growing interest in researchers and gained scholarly attention over the last decade, providing the literature review (Sassmannshausen & Volkmann, 2018; Saebi, Foss & Linder, 2018). Despite the diversity in the SE literature, the standard definition of SE (the third economy sector), includes several core characteristics displaying the undertaking to create economic and social value by employing resources to solve chronic social issues to generate benefits for society (Saebi, Foss, & Linder, 2018). While SE remains a complex theoretical construct, it is premised on four core characteristics identified as solving social challenges, driven by a defined social mission, an innovative business model and self-sufficiency based on earned income strategies and resource exploitation (Alvord, Brown, & Letts, 2004; Dees, 1998, 2001).

The relevance of SE depends on both economic and social conditions in a specific environment (Ramus, Vaccaro, & Brusoni, 2017). SE has arisen over the years to identify and deliver transformative and sustainable societal improvement to the economically marginalised segments of society (Osberg & Martin, 2015). It is evident from the literature that scholars attempted to understand the SE phenomena as one that covers viewpoints from social enterprises, social entrepreneurs, and social ventures (André & Pache, 2016; Bacq & Eddleston, 2018). Further integrations of these viewpoints are crucial to progress a comprehensive and lateral understanding of the SE phenomenon.

Collaboration among individuals, organisations and the state for a social cause drives the social value creation process (De Bruin, Shaw, & Lewis, 2017). A hybrid cross-sectoral collaboration and multi-stakeholder engagement (Ramus & Vaccaro, 2017) allowed for effective social value prioritisation, resource strategy development. They shared learning in shared value generation (Quélin, Kivleniece, & Lazzarini, 2017).

Jain, Hazenberg, Seddon, and Denny (2020) elaborated that despite public,-private partnerships having created and demonstrated social value through previous interventions, difficulties in understanding the implementation of social value generation processes remain attributable to the absence of a firm definition of social value, including its theoretical frameworks.

Social enterprises, also called hybrid organisations, are entrepreneurial organisations that possess a wealth of experience in combining commercial and social business activities while pursuing a social mission (Battilana, 2018). The success of social enterprises is the ability to embrace the multidimensional challenges and tensions inherent in their hybrid design (Battilana, 2018; Savarese, Huybrechts, & Hudon, 2021). Social enterprises vary in their entrepreneurial orientation based on social opportunities exploited and the embedded social mission. Some of the SE dimensions used in defining the social entrepreneurial direction (Halberstadt, Niemand, Kraus, Rexhepi, Jones, & Kailer, 2020; Kraus, Niemand, Halberstadt, Shaw, & Syrjä, 2017) are innovation, risk-taking, social mission orientation and proactivity (Alarifi, Robson, & Kromidha, 2019; Dwivedi & Weerawardena, 2018).

Social business strains when establishing a social venture often develop from aspirations to exploit social and financial return, resulting in the unsuccessful balancing of constraints related to optimal resource allocation, promoting organisational aspirations and stakeholder liability (Conger, McMullen, Bergman, & York, 2018). Within the SE spectrum, while several social-purpose driven organisations charge for the products and services, they also compete for volunteers and donations. Osberg and Martin (2015) contend that social entrepreneurs moved from external reliance to self-sufficiency to become financially sustainable instead of reliance on subsidies mainly driven by harsh socio-economic factors. Social enterprises should depend on offerings and volunteerism for their own sufficiency and survival but their own earned income (Abu-Saifan, 2012). The social ventures embarked on are often driven by financial constraints and stiff social goals intended to permanently transform the lives of marginalised groups by altering the socio-economic equilibrium to fit them (Margiono, Zolin, & Chang, 2018).

Social entrepreneurs, just like commercial entrepreneurs, are expected to adopt business strategies that will promote competitive advantage (Kimmitt & Muñoz, 2018). Unlike commercial enterprises, the defined social mission is fundamental and guides the organisational strategy and social value generation in social enterprises (Battilana, 2018). Research on how hybrids balance these challenges and tensions remains limited (Smith & Besharov, 2018).

Social enterprises observe themselves as innovative for their own survival and cost-effective in providing sustainable solutions required to solve the neglected social problems (Myres et al., 2017). Innovation allows social enterprises to deliver on their social and environmental mandate by serving more beneficiaries (Myres et al., 2017;

Temple, 2017). Social enterprises are complex, dynamic and adopt business-like management practices in their operation (Smith & Besharov, 2018).

According to Bhardwaj and Srivastava (2021), SE research is still emerging, resulting in disjointed studies and therefore demanding synthesis of various dimensions and constructs. Gupta, Chauhan, Paul, and Jaiswal (2020) emphasise that while researchers expressed great interest in studying SE business models, a research opportunity remains for enhancement through examining IT adoption in SE business models to enrich their value proposition, including challenges perceived by social entrepreneurs.

2.2.2   Social Enterprises

Business models in SE play a crucial role in creating and deliver value to contribute to the social mission (Zahra & Wright, 2016). Social enterprises are expected to adopt business models, offering innovative approaches to solve persistent social problems with limited and disparate resources for social value generation (Zahra & Wright, 2016). Researchers conceptualised the design of business models to possess critical components which include value creation, value proposition and value capture respectively and are designed into numerous institutional logic (Laasch, 2018; HladyRispal & Servantie, 2016; Muñoz & Kibler, 2016), which, with SE, is driven by the organisation's defined social mission.

Teece (2018) describes a business model as architecture used by organisations to create and deliver value to customers, including tools employed to enable value capture. Teece (2006, 2018) characterised a business model as a channel for technological innovation and asset utilisation that may be strategically combined to generate profits.

The hybrid organisation literature emphasised the following as critical elements in a social business model: the benefits trade-off between social and commercial dimensions managed through synergies, critical management of organisation-stakeholder relationships (Nicholls & Huybrechts, 2016; Ramus & Vaccaro, 2017) and seeking growth through collaboration instead of market domination to increase social influence (Clarke & Crane, 2018; Stadtler 2018).

SE Business models possess both commercial and social institutional logics (Muñoz & Kibler, 2016) constantly in conflict to derive value for both the social enterprise and the public (Stubbs, 2017), therefore, serving numerous masters (Vallaster, Maon, Lindgreen, & Vanhamme, 2019). Sustainable business models for SE must remain innovative and

continuously define new business logic to create a positive and progressive society (Cherrier, Goswami, & Ray, 2018).

While social entrepreneurs are expected to constantly embrace business models, organisational structures, strategies for securing and mobilising resources, networking, overcoming institutional barriers is another crucial challenge (Ometto, Gegenhuber, Winter, & Greenwood, 2019). The value creation process considers overcoming institutional obstacles attributed as the cause of the social issues (Ometto et al., 2019). Social enterprises experienced many challenges that led to weakened stakeholder commitment and damage to reputation (Grimes, Williams, & Zhao, 2019). Access to finance was identified as the dominant barrier for social enterprises (Sroka, & Meyer, 2021).

The scarcity of resources and the commitment to achieve the social mission motivated the strategies of cooperation and *coopetition* rather than competition (Clarke & Crane, 2018; Barinaga, 2018). This broadens the SE business model conceptualisation to include cross-sector collaborations and partnerships (Clarke & Crane, 2018; Stadtler, 2018; Barinaga, 2018) to create and deliver economic and social value to overcome challenges of resource scarcity and institutional barriers. Ince and Hahn (2020) further contend that integrating collaboration with stakeholders increases the organisation's reach and reinforces strategic decision-making.

According to Abu-Saifan (2012), social enterprises operate in business strategies driven by a quasi-commercial structure. These are not-for-profit with income generation strategies and for-profit with embedded social mission strategies driven by sustainability. A not-for-profit with income generation strategies (Lurtz & Kreutzer, 2017) is employed by the social entrepreneur who uses hybrid social and commercial entrepreneurial action strategies (Wales, Kraus, Filser, Stöckmann, & Covin, 2020) as the driver for self-sufficiency through income generation (Margiono, Zolin, & Chang, 2018). A social enterprise can generate a profit; however primarily pursues a social goal (Margiono, Zolin, & Chang, 2018). The profits are re-invested into the enterprise, the beneficiaries, and the members, to generate better social value (Abu-Saifan, 2012).

Further observations were made that profit-driven business models of social enterprises repeatedly defined their value proposition at the level of the customer solely. The value proposition for social business models was defined for the wider stakeholder community (Doz & Kosonen, 2010). Social enterprises are placed in the centre of the spectrum

oriented towards social mission on the left as compared to oriented towards the commercial gains on the right (Figure 3).

| NON-PROFIT | FOR-PROFIT |

Social Entrepreneurs

Commercial Entrepreneurs

Social Mission Driven Growth

Profit Driven Growth

Non-Profit with earned-income strategy

For-Profit with Social Mission Driven Strategy

For-Profit Driven By Market Demand Strategy
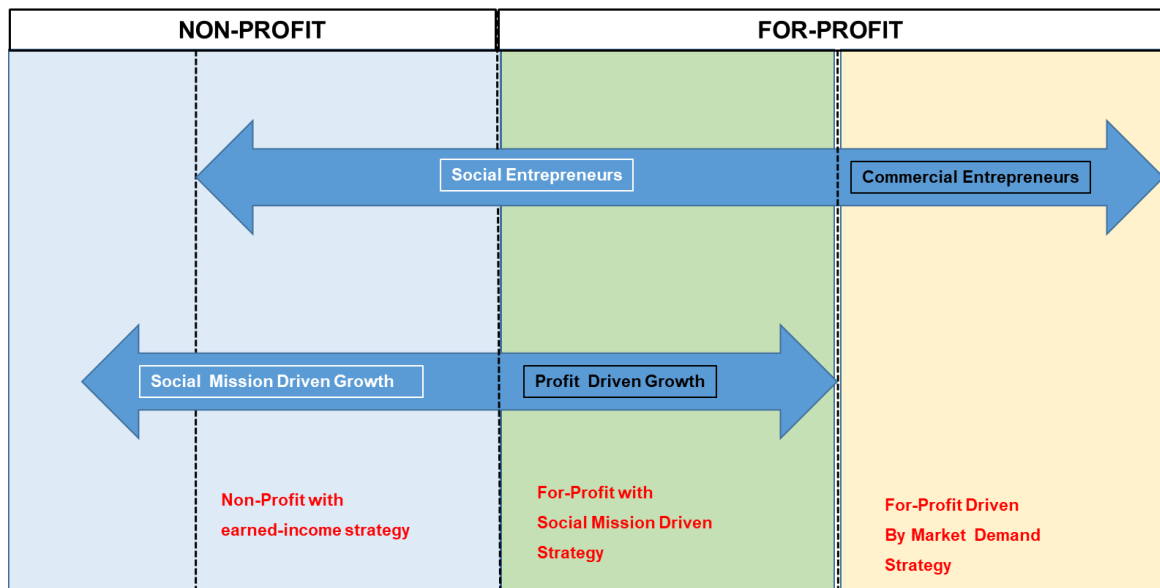
Figure 3

Social Entrepreneurship Spectrum

Source: Adapted from Abu-Saifan (2012); Margiono, Zolin and Chang (2018); Lurtz and Kreutzer (2017).

Gregori and Holzmann (2020) indicated that, if further explored, digital capabilities can promote value propositions that blend both economic and social value. Gupta, Chauhan, Paul, and Jaiswal (2020) acknowledged that despite the significant sustainable business model research conducted, limited research in SE business models exists on managing competition, resource constraints, products and services required to achieve the defined social mission and remain sustainable. Gupta, Chauhan, Paul, and Jaiswal (2020) further emphasised future research prospects in SE that include the business models used, entrepreneurial challenges and the SE efforts and strategies to align social and financial objectives.

2.3   IT-Enabled Dynamic Capabilities

2.3.1   Social Entrepreneurship Dynamic Capabilities

The interdependence on strategy, dynamic capabilities and business models on one another is without a doubt crucial (Teece, 2018). Grounded by the dynamic capabilities (DC) theory (Teece, 2007), renewal of resources and competitive performance in

changing environments is critical for social enterprises. Portrayal from the resource-based observation (RBV) literature remarks that the scale of social influence by a social enterprise depends on its dynamic capabilities, stakeholder engagement, institutional support and ability to financially self-sustain and maintain competitive advantage (Bacq & Eddleston, 2018). Dynamic capabilities enable the long-term sustainability of social enterprises despite their hybridity challenges (Ince & Hann, 2020; Battilana, 2018).

From the research conducted by Prasetyo and Khiew (2016), dynamic capabilities indicated a vital contribution towards the social enterprises' ability to gain sustainable competitive advantage, leading to positive social influence. Despite the limited research indicated, Prasetyo and Khiew (2016) further established the antecedents of dynamic capabilities in social enterprises as knowledge management, network management, and leadership style.

Dynamic capabilities include the sensing, seizing, and transformation competencies required in the model design and implementation of an organisation (Teece, 2018). The maturity of dynamic capabilities in an organisation is a measure of long-term sustainability (Teece, 2018). The agility in designing, implementing, testing and adjusting business models in transforming business environments is enabled by dynamic capabilities (Teece, 2018). These are, therefore, important to drive business model innovation (Teece, 2007).

Ince and Hahn (2020) indicated that in SE, opportunities could be identified through sensing the persistence of unsolved societal needs, seizing the identified opportunities and integrating them to enable the transformation of society for the better. Ince and Hahn (2020) further established that communication with stakeholders in the network facilitates sensing and scoping of the identified opportunities. It enables critical resource access and mobilisation to seize the identified opportunities, while integrating collaborators in the network further expands the organisation's reach. This translates into strengthened strategic decision-making capabilities. The capabilities of social enterprises remain a crucial driver of their performance; however, research is still emerging (Lee & Chandra, 2020).

2.3.2 IT- Enabled Dynamic Capabilities: What Are They?

IT-enabled dynamic capabilities (ITDCs) were defined as the ability of the organisation to exploit its IT assets, resources, and competencies combined with organisational resources and capabilities to response to disruptive changes in the market (Mikalef,

Pateli, & Van De Wetering, 2016). Premised on the RBV phenomenon, organisations can identify and assess IT assets, infrastructure, IT resources, and IT capabilities despite other organisational resources and capabilities and organise them strategically to attain sustainable competitive performance (Van De Wetering & Besuyen, 2021). IT capability was defined as mobilising and deploying IT-based resources complemented by organisational resources and capabilities to remain competitive (Mikalef, Pateli, & Van De Wetering, 2016).

The definition of ITDCs is further anchored on the concept of IT-enabled organisational transformation as defined by Wessel, Baiyere, Ologeanu-Taddei, Cha, and Jensen (2021) as activities that leverage digital technologies in supporting an organisation's value proposition to enhance its existing organisational identity as opposed to (re)defining the value proposition of an organisation to give it a new identity.

Majhi et al. (2021) affirmed that while ITDCs add value to organisations operating in rapidly changing environments, organisations are additionally met with numerous challenges in developing, deploying, and maintaining the fit-for-purpose ITDCs portfolios. ITDCs were demonstrated not to possess uniform strategic advantages in every organisation; therefore, the need to strategically accomplish optimal ITDC configurations is essential based on the strategic business orientation of the organisation (Majhi et al., 2021). Since SE business models are driven by a dual mission (Muñoz & Kibler, 2016), these organisations must accomplish an optimal ITDC portfolio configuration to leverage the ITDCs value contribution based on strategic fitness (Majhi et al., 2021).

El Sawy and Pavlou (2008) characterise turbulence in a business environment as volatility that arises from sudden and disruptive changes in the market trends, consumer behaviour and emerging technology. El Sawy and Pavlou (2008) further acknowledge that in more turbulent business environments, the IT-enabled capabilities become critical in their influence on the competitive and strategic advantage of organisations. Emerging IT infrastructure capabilities best suited for transforming business environments can influence the dynamic capabilities of an organisation's ability to deliver its value propositions (El Sawy & Pavlou, 2008; Kim, Shin, Kim, & Lee, 2011).

Providing ITDCs perspective, Felipe, Leidner, Roldán, and Leal-Rodríguez (2019) indicated that IT capabilities positively influence organisational performance through the complete mediation of organisational agility. Felipe, Leidner, Roldán, and Leal-

Rodríguez (2019) further reveal that the influence of IT capabilities on organisational ability is better for organisations in high-tech intensity industries than those in medium-tech intensity industries. Organisational capabilities are higher-order capabilities that directly contribute to the business performance outcomes, while IT capabilities are lower-order capabilities commonly viewed as enablers of more increased order capabilities (Benitez, Ray, & Henseler, 2018). IT capabilities indirectly influence the value creation process and require organisational capabilities to affect. The contextual and environmental factors affecting the propensity of various IT capabilities to create business value are still poorly understood (Felipe, Leidner, Roldán, & Leal-Rodríguez, 2019).

Torres, Sidorova, and Jones (2018) interpret business intelligence and data analytics as to the sensing and seizing components of dynamic capabilities that contribute to organisational performance. Jalali, Siegel, and Madnick (2019) acknowledge a significant increase in cyber-attacks with digital technologies. Therefore, a need exists to develop cyber security capabilities as proactive decision-making tools used to mitigate cyber security incidents.

IT infrastructure capabilities may include cloud computing, big data, and digital technologies, such as the Internet of Things. These capabilities have the digital logic required to be considered in implementing business models (Gregori & Holzmann, 2020). ITDCs are defined as IT-enabled sensing capabilities, IT-enabled seizing capabilities and IT-enabled transformation capabilities (Mikalef & Pateli, 2017). As part of an IT strategy in an organisation, ITDCs need to be examined regarding how they influence the business model in enhancing sustainable value generation (Gregori & Holzmann, 2020; Mikalef & Pateli, 2017).

2.3.3 IT-Enabled Sensing Capabilities

IT-enabled sensing capabilities to enhance the scanning or learning of the environment to create hyper-awareness of the ecosystem, including competitors, to understand the changing market landscape and proactive management of the changes detected using digital technologies (Mikalef, Pateli, & Van De Wetering, 2016; Mikalef & Pateli, 2017). It is a mechanism used for opportunity and threat recognition (Bhardwaj & Srivastava, 2021). The learning component includes using IT capabilities to identify, evaluate and assimilate new and existing information to assist in decision-making (Mikalef, Pateli, & Van De Wetering, 2020). Sensing also includes reviewing existing products and services

in line with customer expectations and collecting ideas for any new products or services in the market using IT capabilities (Mikalef, Pateli, & Van De Wetering, 2020). Investment in IT-enabled sensing capabilities strengthens the organisation to use technology to identify emerging opportunities and assess how to leverage them to create new products and services to gain a competitive advantage (Teece, 2007).

2.3.4   IT-Enabled Seizing Capabilities

IT-enabled seizing occurs through mobilisation and coordination of resources to address the opportunities identified through sensing to capture value by exploiting digital technologies (Mikalef, Pateli, & Van De Wetering, 2016; Mikalef & Pateli, 2017). The IT-enabled coordination enables effectiveness through synchronised and optimised work output by various resources and business units (Mikalef, Pateli, & Van De Wetering, 2020). Integration and aggregation of information and knowledge, collaboration with business stakeholders, suppliers and customers and streamlining of business processes enables effective decision-making (Mikalef, Pateli, & Van De Wetering, 2020). IT-enabled integration capabilities remove organisational boundaries and promote data integration and accessibility across geographically dispersed business areas (Bhardwaj, Bhardwaj, & Bendoly, 2007). IT-enabled integration and coordination capabilities developed synergies that provide effective communication and collaboration of stakeholders (Enkel & Heil, 2014), therefore, enhancing the ability to transform and create new products and services (Setia & Patel, 2013).

2.3.5   IT-Enabled Transformation

IT-enabled transformation occurs through reconfiguration of the resources and business processes of the organisation and creation of strategic partnerships to continually renew products and services in response to changes in the market using IT capabilities (Mikalef & Pateli, 2017; Mikalef, Pateli, & Van De Wetering, 2020).

Little is known to date about exploiting IT capabilities to maintain a competitive advantage in the business environment through developing ITDCs (Mikalef, Pateli, & Van De Wetering, 2016; Agarwal & Selen, 2009). This is despite the growing literature emphasising the essential role of IT-enabled capabilities played in improving competitive edge in an organisation (Kim, Shin, Kim, & Lee, 2011; Mikalef, Pateli, & Van De Wetering, 2016; Mikalef & Pateli, 2017). A strong request has been made for scholarly attention to investigate how and whether IT-enabled innovation can be attained, including the antecedents as well the ITDCs capabilities's role in the rapidly changing

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business environments (Mikalef & Pateli, 2017; Van De Wetering, Mikalef, & Helms, 2017).

2.4   Discussion and Analysis

While SE begins with a simplified entrepreneurial approach intended to solve complex social challenges, because of its multiple facets and related concepts, which proved to be overlapping, the scope can easily be broadened beyond social goals or social missions unintentionally. The SE business models and SE dynamic capabilities are poorly understood, and the research themes remain underdeveloped. The extant literature displays evidence of independent and unlinked concepts by various researchers conducted at diverse levels and multiple units of analysis (Saebi, Foss & Linder, 2018). Gupta, Chauhan, Paul, and Jaiswal (2020) emphasised that, while researchers expressed great interest in studying SE business models, there is a research opportunity for enhancement through examining IT adoption in SE business models to enrich their value proposition.

Social enterprises require dynamic capabilities to provide renewal capability, continuous exploration of opportunities for innovation and improvement of practices to remain competitive and achieve long-term commitment to its social mission (Mikalef & Pateli, 2017). Teece (2018) stressed the interdependence of business strategy, dynamic capabilities, and business models on one another to generate competitive advantage. Teece (2018) defined a business model as a design of how an organisation generates and delivers customer value, including the instruments used for value capture. Mikalef et al. (2020) contend that ITDCs are an antecedent for competitive advantage under volatile market conditions because they function as an enabler of evolutionary fitness and adaptiveness. The ITDCs contribution and implications on social value creation, constituting a part of the SE business model, still require further investigation (Van De Wetering & Maaike, 2021). Understanding the contribution of ITDCs to SE business models, therefore, has theoretical relevance.

According to SE research, some (Vézina, Selma, & Malo, 2019; Ince, & Hahn, 2020) attempted to explore numerous DCs of SEs; however, a single integrated, coherent framework of DCs in SEs remains outstanding. Benitez, Ray, and Henseler (2018) reveal that ITDCs and organisational DCs have various order levels in influencing business models. The contextual and environmental factors affecting the propensity of IT

capabilities to create business value are still poorly understood (Felipe, Leidner, Roldán, & Leal-Rodríguez, 2019).

The COVID-19 global crisis provided social entrepreneurs opportunities to form strategic partnerships, develop innovative solutions, and replicate at scale (Lumpkin & Bacq, 2019). Bacq and Lumpkin (2021) revealed a call to researchers to investigate and identify capabilities assisting social entrepreneurs to swiftly organise resources that solve extensive catastrophes suffered by society, like the COVID-19 global pandemic.

2.5   Conclusion

The literature review indicates that, within the SE context, the business models and ITDCs research constructs remain underdeveloped. The literature further suggests that social enterprises adopted a myriad of business models with an emphasis on achieving their social mission while generating an income as compared to other enterprises. The ITDCs contribution and implications for social value creation, which constitutes a part of the SE business model, still require further investigation. A solid grounding exists for advancing research in understanding the contribution of ITDCs towards SE business models. The understanding of the theoretical divergences identified and the business relevance posited in Chapter 1, therefore, motivated the research question: How do ITDCs contribute to SE business models?

CHAPTER 3: RESEARCH QUESTIONS

3.1   Introduction

This chapter outlines the main research question and sub-questions derived from the theoretical divergences identified in Chapter 2: LITERATURE REVIEW.

3.2   Research Questions

Despite the growing scholarly interest in the SE phenomenon, from the literature review conducted, theoretical divergences were identified in areas of SE business models (Gupta, Chauhan, Paul, & Jaiswal, 2020); Gregori & Holzmann; 2020) and SE dynamic capabilities (Cherrier, Goswami, & Ray, 2018; Lee & Chandra, 2020; Mikalef & Pateli, 2017). SE Business models and IT-enabled SE dynamic capabilities research themes, therefore, remain underdeveloped. A solid grounding exists for advancing research in understanding the contribution of ITDCs towards SE business models to gain sustainable competitive advantage and improve social influence.

The understanding of the theoretical divergences identified and the business relevance posited, therefore, motivated the primary research question:

- *How do IT-enabled dynamic capabilities contribute towards SE business models*?

The primary research question was expanded into the following research sub-questions:

- **RQ1:** *How are resources and capabilities used for IT enablement of dynamic capabilities in SE business models*?

According to RBV, the research question aims to understand how the resources and capabilities are employed for IT enablement in SE business models. The literature review emphasised that social enterprises are expected to inherit business models that offer innovative solutions to permanent social problems while facing resource constraints to increase social impact (Zahra & Wright, 2016). The insufficiency of resources and the commitment to achieve the social mission motivated the strategies of cooperation and *coopetition* rather than competition (Barinaga, 2018; Clarke & Crane 2018).

Less research exists about leveraging IT capabilities and maintaining a competitive advantage in the business environment through developing ITDCs (Mikalef, Pateli, & Van De Wetering, 2016; Agarwal & Selen, 2009). This is despite the growing literature emphasising the pivotal role of IT-enabled capabilities in improving competitive edge in an organisation (Kim, Shin, Kim, & Lee, 2011; Mikalef, Pateli, & Van De Wetering, 2016; Mikalef & Pateli, 2017).

- **RQ2:** *How do SE business models address IT-related challenges and opportunities*?

The research question aims to understand how SE business models can exploit problems experienced by social entrepreneurs, identifying emerging opportunities. From the literature review, Gupta, Chauhan, Paul, and Jaiswal (2020) emphasise that while researchers expressed great interest in studying SE business models, a research opportunity remains for enhancement through examining IT adoption in SE business models to enrich their value proposition. This includes challenges perceived by social entrepreneurs.

Ince and Hahn (2020) further established that communication with the stakeholders in the network facilitates sensing and scoping the identified opportunities, enables critical resource access and mobilisation to seize the identified opportunities. Integrating collaborators in the network further expand the organisation's reach by translating into strengthened strategic decision-making capabilities. Social enterprises experienced a vast number of challenges that led to weakened stakeholder commitment and damage to reputation (Grimes et al., 2019). Access to finance is identified as the dominant barrier of social enterprises (Sroka & Meyer, 2021).

- **RQ3**: *How do ITDCs influence SE business models*?

The research question aims to understand the function of ITDCs and the factors contributing to the influence on SE business models. From the literature review, the ITDCs contribution and implications on social value creation, constituting a part of the SE business models, still require further investigation (Van De Wetering & Maaike, 2021). According to Bhardwaj and Srivastava (2021), SE research literature is still emerging and fragmented. It demands the synthesis of various dimensions and constructs. ITDCs need to be examined on how they influence the business model in enhancing sustainable value generation as part of an IT strategy in an organisation (Mikalef & Pateli, 2017; Gregori & Holzmann, 2020). Table 1 illustrates the mapping of the sub-questions to literature review theoretical constructs in Chapter 2.

Table 1

Mapping of Research Sub-Questions to Literature Review

RQ No	Research Sub-question	Linkage To Theoretical Constructs In The Literature Review
RQ1:	How are resources and capabilities used for IT enablement of dynamic capabilities in SE business models?	ITDCs
RQ2	How do SE business models address IT-related challenges and opportunities?	SE business models
RQ3	How do ITDCs influence SE business models?	ITDCs SE business models

Source: Researcher's compilation

CHAPTER 4: RESEARCH METHODOLOGY

4.1   Introduction

This section presents the research methodology and design used for the research. Based on the contextual nature of the chosen topic and the research aim, an exploratory approach was adopted in order to understand the contribution of ITDCs towards SE business models. The literature review informed the qualitative research methodology employed to answer the research question: *How do IT-enabled dynamic capabilities contribute towards SE business models*?

4.2   Research Design

Presenting the literature review, the SE phenomenon is an area of fast-growing interest for researchers, gaining scholarly attention over the last decade (Saebi, Foss & Linder, 2018; Gupta, Chauhan, Paul, & Jaiswal; 2020); Bacq & Lumpkin, 2021; Gandhi & Raina, 2018; Mair, 2020). The literature body has not reached its full maturity; therefore, theoretical divergences related to IT-enabled dynamic capabilities and their contribution towards SE business models remain (Sassmannshausen & Volkmann, 2018; Gupta, Chauhan, Paul, & Jaiswal; 2020; Saebi, Foss, & Linder, 2018; Bhardwaj & Srivastava, 2021; Mikalef & Pateli, 2017; Mikalef, Pateli, & Van De Wetering, 2020; Felipe, Leidner, Roldán, & Leal-Rodríguez, 2019; Gregori & Holzmann, 2020; Van De Wetering & Maaike, 2021).

The SE phenomenon literature is underdeveloped, requiring exploration of the theoretical divergences identified to enrich the theory of the phenomenon (Bacq & Lumpkin, 2021; Gandhi & Raina, 2018; Gupta, Chauhan, Paul, & Jaiswal; 2020; Mair, 2020; Saebi, Foss, & Linder, 2018; Sassmannshausen & Volkmann, 2018). According to Leedy and Ormrod (2020), where the extensiveness of the related literature was weak and underdeveloped, such as the SE phenomenon, a qualitative design can allow for freedom and flexibility. This must explore the phenomenon to identify essential features, ideas, and processes.

This study employed a qualitative research method. It includes a research process easily adaptable to change, allowing flexible guidelines, including emergent when the need to build on existing theory arises (Leedy & Ormrod, 2020). An inductive and exploratory approach is encouraged where the study intended to generate new insights and collect perspectives, omitting theory assessment (Bell, Bryman, & Harley, 2019). According to

The research design is determined by factors, such as the research aim, resource availability, skills, and researcher capabilities (Babbie, 2004; Creswell & Creswell, 2018). Creswell and Creswell (2018) contend that the philosophical observations, strategies of inquiry, and research methods combined to inform the research design based on various scenarios. The philosophical observation adopted in the study is the epistemological position with an interpretivism observation (Bell, Bryman, & Harley, 2019). The rationale is that it emphasises the interaction of various components within a complex environment and composite relationships (Bell, Bryman & Harley, 2019). It also relies on the participant's observations, considering the life, background, and work experiences of individuals (Bell, Bryman, & Harley, 2019; Bryman & Bell, 2011). Knowledge can be interpreted so that reality can be better understood in a dynamic setting of society (Cohen, Manion, & Morrison, 2011). Observations are done through the lens of participants and not the researcher. This relates to the study since the SE phenomenon is a multi-faceted and complex phenomenon and may cause multiple interpretations.

The choice of research design included data collection, analysis, and interpretation following the GIBS ethical process (Creswell & Creswell, 2018). According to Saunders and Lewis (2018), semi-structured interviews are suitable for explorations. The study intent was to gain in-depth understanding from participants through explanations about a subject in a specific contextual setting. A cross-sectional time horizon was applied where data were collected for only a single period at a time, owing to time and resource constraints during the study (Alberti & Belfanti, 2019).

4.3   Research Population

The population in a qualitative study regards the homogeneity of participants' backgrounds, accessibility of participants and sufficient data to respond to the research question (Baker & Edwards, 2012). The target population involved diverse organisations with a social mission and digital initiatives. These included NGOs, NPOs as defined in Section 1 of the Companies Act, voluntary associations and also FPOs with a social mission, otherwise known as social enterprises.

4.4   Sampling Strategy

4.4.1   Unit of Analysis

The study's unit of analysis involved managers, organisation heads, or experts with experience and knowledge of IT in social enterprises.

4.4.2   Sampling Approach and Size

The qualitative approach to the study motivated adopting purposive sampling (Nyika, 2018; Hennink, Kaiser, & Marconi, 2017). Purposive sampling techniques were employed where the participants in the research setting were selected based on management experience and knowledge of IT in organisations, socially motivated. Purposive sampling focuses on participants with similar experiences, knowledge, and expertise. More profound components of a phenomenon may need to be researched at varying intensities (Bell, Bryman, & Harley, 2019).

The sampling was anticipated to pose challenges in accessibility attributable to scarcity. Snowball sampling is a purposeful data collection method in qualitative research. It is often used to identify and recruit hard-to-reach populations not easily accessible to researchers through other sampling strategies (Biernacki & Waldorf, 1981). In this purposive sampling method, participants initially contacted used their social networks to refer the researcher to additional relevant potential participants, contributing to the study (Sudman & Kalton, 1986). A snowball sampling technique, a form of purposive sampling, was, therefore, adopted to access specific groups of people using other people's social networks, and participants were recruited based on the chain referrals from the population until saturation was reached (Bell, Bryman, & Harley, 2019).

Chain referral sampling of a hidden population begins with a purposive sample of initial participants (Heckathorn, 2011). As a recruitment strategy, the first few participants of the sample were obtained, using their networks and referrals to grow the target sample. The researcher's personal networks included acquaintances who ran social enterprises, sponsored social enterprises, and members of the African Network of Social Entrepreneurship Scholars (ANSES) network; therefore, introduced to obtain the first participants. With snowball sampling, the target sample size was initially at most minuscule 12 in-depth participant interviews as required to achieve qualitative rigour (Clarke & Braun, 2013; Fugard, & Potts, 2014); however, the last sample comprised 11 interviews when saturation was reached. The timing of sampling decisions was ongoing in response to the data collection outcomes.

4.5   Sampling Criteria

The participants included individuals employed by social enterprises, such as NGOs, NPOs and FPOs with a social mission of digital initiatives. The individuals held seniority

at executive, senior management, and senior specialist levels. The following selection criteria applied to the individuals:

- Must describe the social mission of their organisation or company
- Have an observation of the digital initiatives in their organisation or company
- Have evidence of IT adoption in their business processes
- They have a significant influence in decision-making related to IT systems use and adoption in their organisation

4.6   Description of Sample

The sample comprised 11 participants. Their level of knowledge and experience, and expertise of IT in social enterprises was appropriate to collect their perceptions of how ITDCs contribute towards SE business models. The seniority and expertise level of function in the chosen sample was strategic in planning, development, and execution in their respective organisations. Participants included chief executive officers, founders, co-founders, regional leaders, managers, and social investment specialists. They were selected across various industries. Several participants had vast experience in SE. The industries included health care, transport & logistics, education, financial services and employment.

Table 2 illustrates the summary of the sample. To maintain the anonymity and confidentiality of the sample group interviewed, unique identifiers of participants and their respective organisations are in Table 2 below, as outlined in the GIBS research ethical requirements.

Table 2

Summary of the Sample

Participant ID	Job designation	Organisation ID	SE business orientation	Industry	Years in operation
Participant #1	Business development manager	Org#1	Not-for-profit	Health care	138
Participant #2	Co-Founder & business	Org#2	Not-for-profit	Transport & logistics	4

Participant ID	Job designation	Organisation ID	SE business orientation	Industry	Years in operation
	development head				
Participant #3	Chief commercial officer	Org#3	Not-for-profit	Health care	998
Participant #4	Chief executive officer	Org#4	For-profit	Health care	6
Participant #5	Social investment specialist	Org#5	Not-for-profit	Financial	23
Participant #6	Chief executive officer & co-founder	Org#6	For-profit	Health care	5
Participant #7	Director & co-founder	Org#7	For-profit	Education	3
Participant #8	Regional Leader for Middle East	Org#8	Not-for-profit	Government agency	5
Participant #9	Chief executive officer	Org#9	For-profit	Health care	6
Participant #10	Chief executive officer & founder	Org#10	For-profit	Health care	8
Participant #11	Programme manager	Org#11	Not-for-profit	Employment	10

4.7   Data Saturation Analysis

Data saturation is reached when no newly generated or considerable insights from the participants in the sample are presented (Saunders & Lewis, 2018). This indicates that the data richness became negligible in growth. Upon this occurrence, the interviews were ended. **APPENDIX 6** comprises a list of 135 codes, generated using ATLAS.ti (data analysis software tool) and nine code groups categorised into themes. Data saturation involves the variation in the data levelling, and new, rich and unique perspectives are no longer surfacing from the data collected. The quantity of new codes created for every participant transcript indicates saturation of data when it decreases consistently across participants in the sample in Figure 4 below.
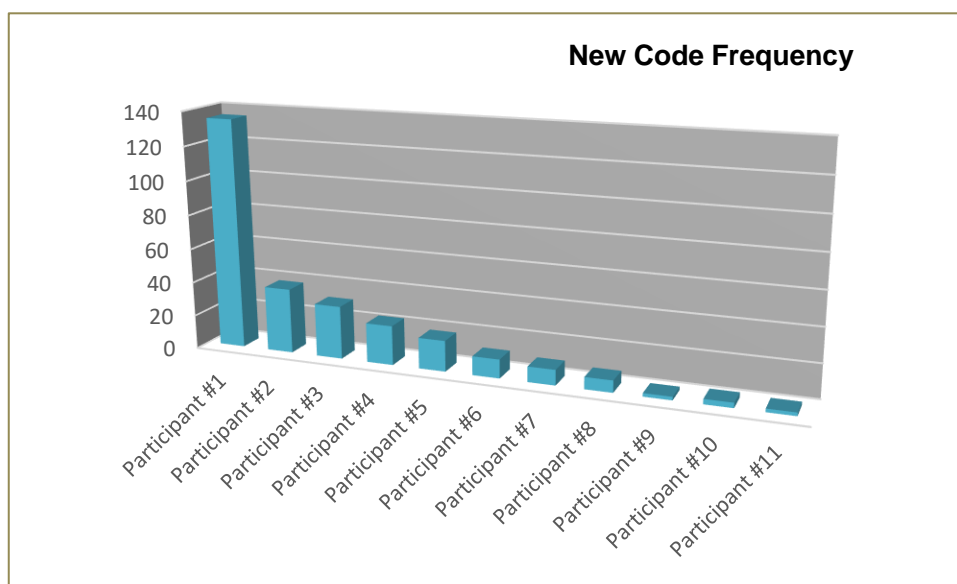
Figure 4

Data Analysis Results Based on The Number of New Codes Generated per Participant Transcript

4.8   Research Instruments

The research instruments comprised a semi-structured, in-depth interview guide, voice and audio recording devices, and a notebook for transcriptions to complement the video and audio recordings. Recordings involved Microsoft Teams and Voice Memos, Otter.ai for transcriptions and ATLAS.ti. for data analysis. The interview guide included the introduction section, broad conversation to set the context, 13 comprehensive questions and more profound and interrogative questions to enhance the exploratory approach and a conclusion. The interview guide is included in **APPENDIX 2**. Saunders and Lewis (2018) encourage openness in dialogue with semi-structured interviews where

participants can share their perspectives in a guided manner. Necessary flexibility in the interview approach was introduced to promote richness in participant responses. The recorded transcriptions were edited before proceeding with the data analysis.

The interview questions were mapped against the research themes, as indicated in the literature review, as well as the mapping against the research sub-questions to improve consistency and design a theoretical framework. Table 1 in Chapter 3 describes the mapping of the research sub-questions against the thematic categories.

4.9   Data Collection Approach

For primary data collection, the study employed semi-structured and one-on-one interviews with open-ended questions. These enabled observations of participants, allowing exploration, adequate testing, and discovery of perspectives through intensive and in-depth engagement with follow-up questions. The semi-structured interviews included pre-determined questions, allowing open dialogue of the identified research themes (Saunders & Lewis, 2018). The interviews continued no longer than 60 minutes for each participant. They were conducted online through Microsoft Teams to comply with the COVID-19 health protocol.

As part of the protocol for scheduling the interviews, the participation request email with a clear subject line was distributed among participants. **APPENDIX 2** displays the standard distributed invitation email, accompanied by the informed consent form of interviews in **APPENDIX 4**. An interview protocol (**APPENDIX 3**) was employed to conduct the interviews.

4.10   Data Analysis Approach

The data analysis approach followed a process of data cleaning and data preparation before analysis. All the written information and recorded data were transcribed and analysed for content, employing a thematic coding analysis recommended for exploratory work on an unknown or developing phenomenon (Vaismoradi et al., 2016). An inductive approach was followed where data collected were used to determine the themes. The data were categorised into specific themes presented as code groups in ATLAS.ti, while patterns emerging from the interviews were assessed. According to Braun and Clarke (2006), the thematic analysis process identifies patterns into themes, providing flexibility to achieve comprehensive results. All thematic analysis phases were followed.

The phases included scrutinising the raw data, coding, identifying data categories, identifying themes, and writing up the data (Braun & Clarke, 2006). Coding in qualitative data analysis is helpful as it inspires the researcher to scrutinise concealed assumptions inherent in the researcher and the participant's use of language. An iterative data analysis process was adopted to allow recognition of any new constructs that could develop the theory-building process. Content analysis was employed to establish and interrogate various perceptions and opinions of participants to discover themes while following a non-linear process (Vaismoradi et al., 2016). The responses were analysed to identify similarities and differences in response. This process enabled an improved understanding of how ITDCs contribute towards SE business models.

4.11   Ethical Considerations

Throughout the research process, the principle of good ethical approach and practices defined by the GIBS ethics committee was followed to protect the participants from potential harm. Ethical considerations, including seeking participants' consent and confidentiality of participant data, were discussed and agreed upon with all participants before engagement. Respondents were issued with an informed consent letter to be signed for approval before interviews (**APPENDIX 4**). The informed consent form enabled participants to record the interviews and transcribe them for data analysis purposes. All interview records, anonymous transcripts, and written notes are securely stored. These are kept confidential and stored electronically with unique identifiers in a secure digital platform for 10 years, in accordance with the GIBS ethics requirements. The ethical clearance approval from GIBS is included as **APPENDIX 5**.

4.12   Data Validity and Reliability

According to Yilmaz (2013), data quality assurance is defined by the concept of repeatability, dependability, and transferability. Credibility involves establishing that the data and the findings correctly reflect the participants' experiences. Transferability ensures that findings can be transferred to a similar context. Dependability would include arrival at similar results if the procedure was repeated by following phases, as stipulated in the data collection and analysis process. Bell, Bryman, and Harley (2019) define data reliability as its repeatability and explain data validation based on the integrity of conclusions derived from the study results.

To ensure good data quality and reliability, various interventions were made. For good data quality, a step-by-step thematic analysis process was followed using the interview

protocol in **APPENDIX 3**. For better reliability, interviews were conducted in person. The recording transcripts were reserved for validating the interview data. A guided theme coding process was employed, using ATLAS.ti. The researcher's biases and values did not influence the data sets collected for analysis (Bell, Bryman, & Harley, 2019). The researcher was self-aware, self-conscious, accountable for her perspective to minimise this occurrence.

A purposeful sample group with a broad spectrum of participants from social enterprises operating in six industries was interviewed to achieve a data variety. This ensured data collection, reinforcing the validity of the results.

4.13 Limitations

The limitations identified from the qualitative study were:

- The sample reached according to the sampling criteria specified comprised 10 participants from South Africa and one from the UK. The sample was, therefore, more representative of South Africa
- The findings may not be generalised since they were based on individual perspectives
- The research aimed at assessing ITDCs contribution to SE business models and not dynamic capabilities
- The study focused on SE business models and not on business model innovation
- The research was conducted over a limited period based on the availability of the population; further insights could emerge if a more extended assessment period occurs
- The sampling criteria only comprised chief executive officers, founders, co-founders, regional leaders, managers, and a social investment specialist across health care, transport and logistics, education, financial and employment industries. While several participants had vast experience in SE, there could still be a limit on the trustworthiness of knowledge capital.

4.14 Conclusion

The chapter addresses applying the research methodology of this study. This chapter summarises applying the qualitative research, research design, population and sampling approach, data collection, analysis, validation, ethical considerations, and limitations. Chapter 5 provides the results of applying the research methodology. The focus is

directed at presenting the research findings on the contribution of ITDCs towards SE business models.

CHAPTER 5: RESULTS

5.1   Introduction

This chapter entails the 11 in-depth interviews conducted based on the main research question and sub-questions in Chapter 3. Participant perceptions are disclosed based on their knowledge and experience in managing and heading social enterprises. The introduction is followed by the presentation format of the results based on the themes, the findings from the themes derived, and chapter conclusions.

5.2   Presentation of Results

From the results of the data collection and analysis to answer the main research question in Chapter 3, nine themes emerged from the patterns of data collected. These are mapped against the respective research sub-questions in **Table 3**.

Table 3

Mapping of Research Questions to Themes

Theme No	Theme	Research Question
Theme 1	IT Enablement of SE Sensing Capabilities.	RQ1 & RQ3
Theme 2	IT Enablement of SE Seizing Capabilities.	RQ1 & RQ3
Theme 3	IT Enablement of SE Reconfiguration Capabilities.	RQ1 & RQ3
Theme 4	IT Infrastructure and Resources Requirements for IT Enablement in Social Business Models.	RQ1
Theme 5	Insourced vs Outsourced IT Capability and Support.	RQ1
Theme 6	Digital Typology of SE Business Models.	RQ3
Theme 7	IT Challenges and Opportunities for Social Enterprises in Developing Economies.	RQ2
Theme 8	The IT influence on future strategic postures of SE Business Models.	RQ3
Theme 9	Understanding the function of IT-enabled Business Transformation in Improving SE Business Relevance.	RQ3

The research results themes were further clustered into Category A and Category B in Figure 4, informed by the theoretical constructs in Chapter 2: LITERATURE REVIEW.

Results Structure

CATEGORY A: IT-Enabled Dynamic Capabilities

Theme 1: IT-Enablement of SE Sensing Capabilities

Theme 2: IT-Enablement of SE Seizing Capabilities

Theme 3: IT-Enablement of SE Reconfiguration

Theme 4: IT Infrastructure and resources requirements for IT Enablement in SE Business Models.

CATEGORY B: SE Business Models

Theme 5: Insourced vs Outsourced IT Capability and Support.

Theme 6: Digital Typology of SE Business Models

Theme 7: IT challenges and opportunities for social enterprises in developing economies.

Theme 8: The IT influence on future strategic postures of SE Business Models.

Theme 9: Understanding the Role of IT-enabled Business Transformation in Improving SE Business Relevance.

Figure 4
Research Results Structural Outline

Source: Researcher's compilation

5.3 Category A: Social Entrepreneurship Business Models

5.3.1 Theme 1: IT Enablement of Social Entrepreneurship Sensing Capabilities

5.3.1.1 Findings

The participants were questioned on their understanding, knowledge, and experience of using IT and digital capabilities in social enterprises to collect market intelligence, enable market penetration and brand positioning to sense threats and opportunities presented by the market environment. Participants understood the importance of sensing capabilities in their organisations. This was despite the existing strengths of digital presence in their organisations, to sense threats and opportunities presented by the market environment, using IT and digital capabilities.

Participants from NPOs maintained that, because their focus was on survival, they paid little attention to developing IT and digital capabilities. From the market intelligence, they

collected information with the devices available. They discovered that their average stakeholder base was the older age group. This signalled a lesser appeal to the younger generation of professionals and clients. This became a revelation that their brand was no longer in according to their mission as a social enterprise. This outcome triggered investment in IT and the digital capabilities required for digital marketing.

> … and the context is that we come from a charitable mind-set, we come from a legacy of thinking like a non-profit organisation... it's not necessarily a proactive mind-set they have. Participant #1

> [IT] is not a core skill … however you know, we will augment digital agency.

> Participant #3

> … it was very difficult firstly to crack into the market … we don't have any dedicated effort or department on market research … [so we relied on] recurring business and only now, did we really go out into the to the market.

> Participant #2

> When [Org#5] really started in 1998, it was quite easy to do the market assessment….. we looked around and there was nobody else…. we're the only ones doing it. And that was that………Now we know that the market is actually getting quite crowded [therefore having to look into IT capability]. So it is that way in which we understand what else is happening in the market. Participant #5

Another participant (#2) explained that the only marketing, research, technology or reporting capability within their NPO was to answer funder demands and were still reliant on traditional face-to-face stakeholder interactions to sense their environment.

> … we don't have. And it's something that we considering now, we don't have any LSM [Learning Management System] or dedicated effort or department on market research.

> … and how we doing our market research is really through our teacher regulator, the teacher which is the Regulatory Authority team, they give us obviously feedback as to the industry and we do it also through our customer retention by doing customer interviews [face-to- face] time.

Participants from FPOs affirmed that exploiting in-house IT and digital capabilities and social media platforms for digital marketing and awareness campaigns was critical to their survival without any donations.

> Digital intelligence is becoming critical to our survival. Participant #3

> … surviving with the absence of donations, you know. So unfortunately, now we have to survive and grow the business through marketing and awareness campaigns [through the in-house IT platform.] Participant #4

> But social media is actually the answer... that's like you using to try and gather intelligence to say, this is what's happening around me. Participant #10

NPOs and FPOs, regardless of their digital maturity, experienced the benefit of greater stakeholder reach and improved stakeholder relationships because of better stakeholder interaction, participation and engagement through using IT and digital capabilities at their disposal. This elevated their organisational capabilities to an enhanced sense of the environment for threats and opportunities.

> … It's kind of closed loop communication, where we stakeholders can be pretty persuasive. Having effective digital systems in place for stakeholder engagement, allow continuous and consistent access to aspects of the stakeholder participation with the platform. And by that specifically, I mean, access to consistent analytics and metrics... If I have to summarise that you could say digital permits, real time metrics and analytics that support really powerful stakeholder relationships? Participant #5

The extract from Participant #6 supports the assertion that IT and digital capabilities enable scale and a greater reach of stakeholders, which translates into more significant social influence.

> … impact really is always being tied to scale and reach. I think that it's difficult to establish the reach without digital these days, whether that's reaching your beneficiaries, whether that's reaching funders… reaching more forms of stakeholders, I think just impact through reaches, I think, is more and more difficult without, like an advanced digital strategy. Participant #6

Participant #8 understood that in their organisation, stakeholder participation relied heavily on IT platforms to collect and share information with stakeholders effectively. Participant #8 also believes that using IT and digital capabilities to communicate with stakeholders builds trust, while information sharing is faster and more reliable.

> So one of that is that sort of creating spaces for [stakeholder] participation relies more on IT, but also platforms to share information itself? Whatever information we gather, sharing information is also really heavily relies on IT.
>
> … how do we go to government institutions and begin to build trust with citizens, and one of the things that are highlighted there was technology because it provides an opportunity for government to share information much faster, much quicker, much more reliable? Participant #8

Participant #11 revealed that through strategic collaboration with several large telecommunications companies, their organisation established a data-free website where the youth, as beneficiaries, can interact with them without bearing the cost of data. This has since improved the dynamic response from the market.

> We are able to direct them to a data free site, we have more responses. Participant #11

5.3.1.2 Findings Summary

Most participants believe that IT and digital capabilities enable SE dynamic capabilities to sense threats and opportunities in the market environment. NPOs present patterns of low digital maturity of their organisations and inadequate digital literacy of stakeholders in their network. They are, therefore, unable to achieve effective digital marketing. NPOs neglected the IT investment required to develop IT and digital capabilities. They remain primarily reliant on traditional face-to-face stakeholder interactions to sense their environment.

FPOs presented a good digital maturity and high digital literacy. They could sense threats and opportunities in disruptive and volatile market environments using their in-house IT and digital capabilities and social media platforms. FPOs posed more robust and advanced sensing capabilities of their internal and external market environment owing to IT enablement, as compared to NPOs.

NPOs and FPOs believed that IT and digital capabilities enable scale and a greater reach of stakeholders, translating into more significant social influence. Interactions through stakeholder engagement and participation were critical to sensing the environment. Stakeholders are the point sources of market data. Analytics must sense threats and opportunities presented by the internal and external environment. The IT and digital platforms help enable dynamic feedback to entwine in real time between the organisation

and its crucial stakeholders. This strengthens and creates new relationships through trust-building.

5.3.2 Theme 2: IT Enablement of Social Entrepreneurship Seizing Capabilities

5.3.2.1 Findings

Participants understood seizing capabilities to capture the opportunities already sensed from the changing market. The organisation requires the ability to quickly perform business development activities and take advantage of the opportunities presented. The response could include existing or new products and services. The time to market is a crucial performance indicator to measure response times to seize opportunities successfully. The participants were interrogated on their understanding of IT enablement to take opportunities in their organisation.

Most organisations with a strong IT presence and high digital maturity in their business models could seize opportunities in the market using IT and digital capabilities. Most options were leveraged through improved efficiency through economies of scale and productivity through volume capacity increase yielded by IT and digital capabilities to achieve a wider audience, reach, and growth in client base.

> … I think the fact that we have a digital platform that is accessible at any time to healthcare professionals, means that from an economies of scale perspective, the volume increase of the healthcare professional stakeholders on our platform increased at a remarkable disproportion to the marginal increase in [hosting] costs. Participant #6

> … And that's important for us, because it allows us to build economies of scale, and also reach a whole lot, a much wider audience. Participant #1

Participant #11 acknowledged the scale-up benefits of using IT to enable faster business processing and improved productivity. IT assisted in unblocking bottlenecks capacity constraints allowing a record to high number of customers on board, therefore, scaling social influence.

> … the technology enables us to do things at scale, or to manage projects at scale. So in the past, we wouldn't have imagined managing a project for over 300,000 people at the same time, in one month. Participant #11

Social enterprises with low digital maturity, mostly NPOs that mainly relied on the traditional face-to-face business, pivoted to digital delivery models, where possible owing to market demand and business continuity challenges encountered during COVID-19 lockdown. The change from the standard delivery to digital was introduced to support business continuity and is not driven by growth and long-term sustainability prospects. The change was viewed as forced and reactive rather than proactive, opportunistic, or favourable to the organisation. It was for their own survival of the digital vortex.

Before the disruptive and unforeseen effects of the COVID-19 economic lockdown restrictions, most not-for-profit organisations lacked a significant appetite to adopt IT and digital capabilities in their business models. Preliminary research is conducted internally to justify further investments in IT resources and infrastructure. The value of IT and digital capabilities was only realised when encountered with threats from the changing market environment and business continuity challenges presented by the COVID-19 lockdown restrictions.

> … but we were doing all that, obviously, physically [face to face], we had to send teams into different communities. But because of COVID, we couldn't do that anymore. So, we had to pivot and move all the work that we do into a system. And that also in actually brought us to a point where we created a portal for our partners who place young people in employment. Participant #11

> So, training came under severe threat when COVID hits because both our training, which traditionally had been very much face to face. And so with the impending lockdown, although we had discussions before about moving into the Virtual Training space, and doing digital training and online. Participant #1

> When you consider about 2/3 of our income, 2/3 is still is derived or delivered via face-to-face training.What [Org#3] did very successfully very quickly was pivot into digital delivery. Participant #3

> … the lockdown hit us squarely. It was a scenario where we had to say, well, we can't just stop training, we have to, we have to pivot immediately. Participant #1

Participant #6 leveraged digital capacity in their organisation for expansion beyond geographical borders, which was more effortless than having brick-and-mortar infrastructure, which poses a challenge in seizing opportunities for development in a disruptive and volatile market environment.

> … you can say that the international opportunities to expand (Org#6] also arise as a result of the platform being digital. We don't have to go for brick and mortar infrastructure in foreign territories … as a result of digital capacity. Participant #6

Participants believed that efficiency and productivity in social enterprises positively influence social influence.

> If there are ways that we can be more efficient in what we do and be faster, what we do, we can have, it has an exponential effect on the impact that we can make. Participant #1

> … as the social entrepreneur who wants impact at scale, there is no other way to do it, other than using the digital way of doing things. … technology helps us to also manage a lot of stakeholders at the same time. Participant #11

Participants emphasised that business intelligence and advanced real-time data analytics through IT enablement created visibility for stakeholders and effective performance monitoring and evaluation. Data collection, data integrity, and data reliability through IT use assisted strategic decision-making.

> IT will definitely help us in terms of making sure that we make better decisions. But also, in terms of visibility of the work that we do … within our stakeholders, within our donors. Participant #8

> IT has helped you obviously with both data collection and integrity rather, around the data you've been collecting over time ….if a donor wants to understand … you're able to give them reliable data.Participant #5

> … we are part of it of the knowledge economy. When I say that, it's about understanding the importance of data, building data, and using that data to make strategic decisions around moving forward around growing particular areas.

5.3.2.2 Findings Summary

Participants revealed that efficiency and productivity in their respective social enterprises were achieved through IT enablement, and the influence had a further positive social effect. They believe that technology enables the expanding products and services by leveraging existing digital capacity, causing intensified social power. Participants

experienced effective and real-time performance monitoring and evaluation enabled by IT, which helped identify opportunities for business transformation.

Participants also observed that business intelligence and advanced real-time data analytics through IT enablement created information visibility for stakeholders, enabling informed strategic decisions. Social enterprises with high digital maturity, mostly FPOs, leveraged their digital capacity to seize opportunities beyond geographical borders more efficiently than the brick-and-mortar, face-to-face delivery model, presenting limited seizing capabilities in volatile and disruptive market environments.

5.3.3 Theme 3: IT Enablement of Social Entrepreneurship Reconfiguration Capabilities

5.3.3.1 Findings

The results indicate the FPOs demonstrated a proactive mindset and culture in their operating model. FPOs were more effective in reconfiguring assets, business processes and resource allocation to transform the organisation for long sustainability and resilience by leveraging their high digital maturity. This enabled FPOs to aggregate their social influence by creating new products and services presented as accessible opportunities during the COVID-19 economic crisis. This was made possible by leveraging existing IT and digital capabilities to capture emerging markets resulting from the COVID-19 economic lockdown. Scalability and growth became easier owing to scale economies. The IT architecture of digital solutions allowed for repeatable and reusable architecture solution building blocks with little customisation. The multi-channel IT platforms could be effectively reorganised and reused, meeting new customer requirements, facilitating economies of scale and agility in transitioning among business models.

> I think without the presence of IT, it will be very difficult to practically scale in other territories locally and internationally without the use of technology. So I think that it is that we all need technology to be able to grow into new markets.
>
> … and I think to be scalable, also, you don't have got to go to the main old routes anymore, you have to go with technology to be able to scale and reach more patients. Participant #4
>
> …you can say that the international opportunities to expand [Org#6] also arise as a result of the platform being digital. We don't have to go for brick and mortar infrastructure in foreign territories. Participant #6

So we created a platform to support HIV diagnosis and referral of patients. The platform is multi-channel, so it means that we have a progressive web app, we have a tablet version of the app, but we also have WhatsApp chatbot. Participant #9

I think one of the things that we learned during COVID-19 lockdown was that WhatsApp is a big thing which young people can easily connect to it. And from there, we were able to actually start what we call digital robots. WhatsApp bots? Yes. Chatbot? Yeah, we were able to actually start using that. Participant #11

Every time we make resource allocations, and we change business processes, because it's very likely as a result of some underlying capacity. Participant #6

In NPOs, where it appeared to influence donor expectations, the IT enablement in reconfiguring assets, business processes, and resource allocation was predominantly slow and constrained. Most resource allocation and business process changes were perpetrated by the need for survival rather than long-term growth and sustainability. It is as though the NPOs are serving two masters—the beneficiaries and benefactors, while also striving to operate optimally.

Participant #1 shared the perception that NPOs lack a proactive mindset visible in how they conduct reconfiguration of assets and resource allocation, mainly influenced by funding constraints, therefore, exposing them to a high risk of social mission drift. Participant #11 revealed that their NPO used strategic collaboration and partnerships with several large telecommunications companies to establish a data-free website. This enabled new products and services by sharing IT infrastructure, integrating IT systems and re-engineering business processes.

5.3.3.2 Findings Summary

In NPOs, IT enablement in reconfiguring assets, business processes and resource allocation was predominantly slow and constrained. Most of the resource allocation and business process changes were perpetrated by the need for survival rather than long-term growth and sustainability.

FPOs, which predominantly have high digital maturity and a digital primary business model, could aggregate their social influence by quickly using opportunities in the market and creating new products and services. This was achieved seamlessly by reconfiguring

and integrating IT assets and infrastructure capabilities and seamless systems integration. Strategic collaboration and partnerships help share the IT infrastructure burden to aid in creating new products and services through digital transformation and reducing barriers to market entry.

5.3.4 Theme 4: IT Infrastructure and Resources Requirements for IT Enablement in Social Entrepreneurship Business Models

5.3.4.1 Findings

The crucial IT infrastructure requirements are summarised from various NPOs and FPOs, as:

- IT cloud-based hosting
- Integrated modular and scalable IT platforms
- Laptops and computers
- Network connectivity infrastructure
- Software licensing
- Adequate information
- Cyber security to prevent unauthorised access to data records

Numerous participants emphasised the option to have cloud-based IT and digital capabilities for quick deployments, agility and cost-effective IT enablement in social enterprises. Cloud-based offerings advance a subscription-based service model more affordable for small-sized enterprises that may not have enough money to own IT infrastructure.

Participant #9 emphasised that the digital divide between the rural and urban areas creates challenges.

> … you'll get the rural areas, versus the urban areas in terms of people's usage of IT, the availability of connectivity, etc. Those are some of the challenges that we find. Participant #9

Participant #11 identified access problems to data outside of metropolitan areas as a barrier to entry into the market economy for marginalised and vulnerable societal groups.

> … because what we have learned is that in several areas, especially once you get out of the city or the metros where connectivity is an issue for young

> people. It means that it almost becomes a barrier for those who have such challenges where they don't necessarily have the right connectivity to interact with the solution. Participant #11

Participant #6 developed an in-house IT resource capability since their organisation has a digital business model running from an IT platform.

> … we have a fully-fledged and full suite in-house Product Design and Technology team. Participant #6

Participant #7 understood IT infrastructure to achieve their social mandate to include basic technology tools and more sophisticated IT solutions. They further understood the IT resource requirements to achieve their social mandate as the financial and technical resources to build the infrastructure and develop fit-for-purpose IT solutions that meet the needs of the end-users and that work.

> … using technology, to achieve your mandate, and that includes your laptop, right, your phone, that includes the, you know, with the tools that a laptop, and a phone brings, like your emails, like your websites, and you know, Google and stuff like that, but also going beyond that, you know, we're using more advanced, like, using apps using digital platforms and so forth.

> The first one is, is that the tools, which I mentioned, the laptops, you need the hardware. And then you need the software as well, which is what I highlighted, but then also all to happen, you need financial resources.

> … but it also you need the technical people that are able to actually build that infrastructure. Because without, without the technical people to build the infrastructure, you don't have it, you can use it. But also, I think you also need the end users, right? Because without the end users, you're just developing things that don't work. Participant #7

> … [IT Resources] includes developers, because we have a team which builds the mobile infrastructure, or the platform. So, we have developers, we have testers, and we have business analysts. Participant #11

5.3.4.2 Findings Summary

Participants identified the following IT infrastructure and IT resources, with IT Infrastructure requirements to include:

- IT cloud-based hosting

- Physical servers
- Integrated modular and scalable IT platforms
- Laptops and computers
- Network connectivity infrastructure
- Software licensing
- Information and cyber security infrastructure
- Mobile phones
- Mobility software applications
- Data-free IT platforms for marginalised and vulnerable groups
- Power supply alternatives to mitigate the influence of long-term and regular power interruptions, such as load shedding

The IT resources include the following skills and competency requirements:

- Development and design team/s
- Financial resources
- Process engineers
- Data architects
- Market researchers
- Various stakeholder networks that are the end-users of the systems

Most participants confirmed that their organisations, whose digital maturity was historically low, had to incur rapid and significantly high IT spending over the COVID-19 lockdown period. These costs relate to IT infrastructure and technical resources required to enable business continuity, requiring remote working methods.

5.3.5   Category A Conclusion: IT- Enabled Dynamic Capabilities

The research findings indicate NPOs presented patterns of low digital maturity of their organisations and low digital literacy of stakeholders in their network, therefore, unable to leverage the value of IT and digital capabilities effectively. NPOs demonstrated inadequate IT investment in developing IT and digital capabilities and are still primarily reliant on traditional face-to-face stakeholder interactions to sense their environment. NPOs lack a proactive approach in responding to market dynamics. These research outcomes about NPOs characteristics in ITDCs within the SE context are not evident in literature, therefore, presenting a challenge to evaluate the consistency of the findings.

FPOs presented a good digital maturity and high digital literacy. They could sense threats and opportunities in disruptive and volatile market environments using their in-house IT and digital capabilities and social media platforms. FPOs posed much more robust and advanced sensing capabilities of their internal and external market environment owing to IT enablement compared to NPOs.

5.4 Category B: SE Business Models

5.4.1 Theme 5: Insourced Versus Outsourced IT Capability and Support

5.4.1.1 Findings

Table 4 depicts the IT capability and support sourcing models adopted by the respective social enterprises as perceived by the participants.

Table 4

IT Capability and Support Sourcing Models

Participant ID	Organisation ID	SE Business Orientation	IT Capability & Support Sourcing Models	
			Insourced IT Capability and Support	**Outsourced IT Capability and Support**
Participant#1	Org#1	Not-For- Profit	No	Yes
Participant#2	Org#2	Not-For- Profit	No	Yes
Participant#3	Org#3	Not-For- Profit	No	Yes
Participant#4	Org#4	For-Profit	Yes	No
Participant#5	Org#5	Not-For- Profit	No	Yes
Participant#6	Org#6	For-Profit	Yes	No
Participant#7	Org#7	For-Profit	Yes	No
Participant#8	Org#8	Not-For-Profit	Yes	No
Participant#9	Org#9	For-Profit	Yes	No
Participant#10	Org#10	For-Profit	Yes	No
Participant#11	Org#11	Not-For- Profit	Yes	No

Source: Author's compilation.

5.4.1.2 Findings Summary

Derived from **Table 4**, most NPOs, observed as low in digital maturity, adopted an outsourced IT capability and support model. The exception was Org#11, a not-for-profit organisation with a digital primary business model and high digital maturity, which insourced the IT capability and support. All for-profit organisations observed to be higher in digital maturity and literacy adopted an insourced IT capability and support model. Organisations with a high digital maturity adopted an insourced IT capability and support model, whereas organisations with a low digital maturity adopted an outsourced IT capability and support model. This indicates that social enterprises adopted IT capability and support models fit-for-purpose based on the strategic orientation adopted to support their respective business models.

5.4.2   Theme 6: Digital Typology of Social Entrepreneurship Business Models

5.4.2.1 Findings

This typology explores how social enterprises have mixed digital orientations based on their business and operating models. These operational models are designed according to the defined financial and social objectives, social mission, market dynamics, stakeholder requirements, and legal and compliance requirements.

Participant #6 explained that if the primary business model of a social enterprise is not digital, the enterprise will leverage digital capabilities to support its primary business model, as opposed to adopting a primarily digital business model.

> ... comparatively to other social companies, where the primary business is not digital, and they have to leverage digital capacity to do their primary business. Participant #6

Table 5 below illustrates the SE typologies based on digital orientation, service and product delivery model, including organisational orientation for each organisation.

Table 5

Digital Typology of SE Business Models

Organisation ID	SE Business Orientation	SE Digital Orientation		SE Service and Product Delivery Model		
		Digital Primary Business Model	IT and Digital <u>not</u> Primary Business Model	Digital only (No Face-to-Face)	Blended (Face-to-Face and Digital)	Non-digital (Face-to-Face Model Only)
Org#1	Not-For- Profit	No	Yes	No	Yes	No
Org#2	Not-For- Profit	No	Yes	No	Yes	No
Org#3	Not-For- Profit	No	Yes	No	Yes	No
Org#4	For-Profit	Yes	No	No	Yes	No
Org#5	Not-For- Profit	No	Yes	No	Yes	No
Org#6	For-Profit	Yes	No	No	Yes	No
Org#7	For-Profit	Yes	No	No	Yes	No
Org#8	Not-For-Profit	Yes	No	No	Yes	No
Org#9	For-Profit	Yes	No	Yes	No	No
Org#10	For-Profit	Yes	No	No	Yes	No
Org#11	Not-For- Profit	Yes	No	No	Yes	No

Source: Author's compilation.

5.4.2.2 Findings Summary

From the sample, two types of social enterprise digital orientations emerged based on their business operating model. These are the digital primary business model and the primary business model leveraging IT and digital capacity for support. Social enterprises that adopt a digital primary business model are IT-based organisations relying on IT and digital capabilities to conduct business. Social enterprises leveraging IT as a support function means facilitating the business processes; however, IT is not their primary business.

Most organisations prefer a blended digital delivery approach of using a combination of face-to-face and digital channels to deliver products and services. The blended delivery approach was important when developing and marketing new services and products. This is mainly driven by the culture of scepticism that still exists among some crucial stakeholders on adopting IT to conduct business. This necessitates prioritising change management and training to change their mindset and willingness to adopt IT-enabled systems and processes.

5.4.3 Theme 7: IT Challenges and Opportunities for Social Enterprises in Developing Economies

5.4.3.1 Findings

The findings in Table 6 show a myriad of IT challenges and opportunities for social enterprises in developing economies, such as the South African economy, based on participants' perceptions. APPENDIX 7 depicts the observations of each respective participant of IT challenges and opportunities for social enterprises based on their knowledge and experience.

Table 6

IT Challenges and Opportunities for Social Enterprises in Developing Economies

Challenges	Opportunities
Poor network connectivity infrastructure.	Maximise demographic dividend by establishing policies promoting youth access to leverage technology needed to solve social problems.
High cost of data and Wi-Fi connectivity.	
Low digital literacy.	Embrace co-opetition and collaboration through strategic partnerships to share IT infrastructure and reduce entry barriers into new markets.
Preference for face-to-face business over online services.	
Funding resource constraints for adequate capitalisation for resource capacity.	Adoption of proactive corporate practices in NPOs to run efficiently while maintaining the social mission.
Barrier to entry into new and specific markets for the youth and people with disabilities.	Pivoting to an online delivery service model.
Lack of proactive mindset in NPOs.	Adoption of e-commerce platforms.
Digital divide between rural and urban areas.	Business intelligence and advanced analytics capabilities for performance monitoring and evaluation.
Lack of technology innovation.	Integrated IT platforms.
Unreliable power supply	Investment in e-Learning Management Solutions.
	Promote a 'mobile first' culture where services and products can be accessed anywhere and everywhere.
	Improve information access through data-free websites or free Wi-Fi hotspots in strategic locations for the disadvantaged and marginalised society.

Challenges	Opportunities

Source: Author's compilation.

5.4.3.2 Findings Summary

- **IT Challenges**

Poor network connectivity infrastructure and inflated cost of data and Wi-Fi connectivity created unequal access to information based on status. Finance resource constraints, skills shortage, and general lack of technology innovation have limited market participation for the youth and the vulnerable community members.

- **IT Opportunities**

Identified opportunities include leveraging the demographic divide in South Africa. This can be conducted by:

- Establishing policies promoting youth access to leverage the technology to solve social problems
- Embracing co-opetition and collaboration through strategic partnerships to share IT infrastructure and reduce the barrier to entry into new markets
- Using business intelligence and advanced analytics capabilities to inform decision-making
- Improving information through shared IT infrastructure and improving digital literacy in society to accelerate IT adoption and integration into SE business models.

NPOs need to adopt proactive business models for self-sufficiency and sustainability.

5.4.4 Theme 8: The IT Influence on Future Strategic Postures of Social Entrepreneurship Business Models

5.4.4.1 Findings

The lack of proactive culture and mindset of NPOs in driving IT and digital enablement resulted in consistently low digital maturity in the organisations and low digital literacy among the stakeholders. Their response to rapid changes in the disruptive and volatile

market environment was primarily driven by business continuity for survival, with little focus on digital transformation to catalyse their business strategies for long-term survival.

Participants agree that IT and digital enablement positively contribute to agility and performance in social enterprises. Crucial benefits were emphasised as faster, effective, and continuous change management practices. This includes centralisation and standardisation of the digital capability shared across multiple geographical areas, organisational agility, faster and reliable information collection and reporting, building trust in the market, effective internal processes, and better employee engagement.

> … with respect to agility and positive performance, I think the key thing about agility is as follows. Software, particularly from an IT perspective, lends itself to agility. And the main reason for that is it can be from a distribution perspective, it is delivered instantaneously and can be changed instantaneously.

> Digital is powerful because in the market, one need to test and iterate what is required to determine product market fit, then adequate commercialisation from an impact perspective, one would need to do the same thing. So digital definitely allows agility. Participant #6

> … centralised shared services environment and a centralised digital capability that we can deliver across the globe. Participant #3

> There's a difference between being data informed and data driven. Data driven means that you put the highest priority on the data. Data informed means that you take the data, view everything through a lens of what's happening in the bigger context. Yes, I think that IT does make you more agile. Participant #9

> … I think firstly, IT definitely enables change processes to be faster, IT enables us to understand the markets much better if we do use it for research. It enables us to gather information much faster, but also it enables, social enterprises to reach out to stakeholders much faster as well. Participant #8

Participants shared positive sentiments that IT and digital capabilities assist in creating new products and services in markets to remain relevant.

> I think without the presence of IT, it will be very difficult for you to, you know, practically scale in other territories locally and internationally without the use

of technology. So I think that it is that we all need technology to be able to grow into new markets. Participant #4

Yeah, absolutely. Again, you know, draws back to the way we do business. We will absolutely continue to, and I guess the world that uses [Org#6] as a significant technology and product roadmap, which seeks to solve multiple needs of the multitude of stakeholders. Participant #6

Yeah, I think, you know, because we're a company, we, there's a lot of information that we can get from our data, which actually points to new products and services and there's also the also sort of data signals into what products people may require. Participant #9

Some participants emphasised that the legislative and policy environments remain restrictive in developing markets. Policymakers still mistrusted whether IT could tackle social problems. An example provided was the public sector, highly driven by regulation, is still sceptical in using cloud-based services cheaper and faster to deploy. Instead, they still prefer information storage on physical more expensive and less flexible premises.

I think we still have a lot to do. One big one is really our policy environment in developing markets, I think they is still mistrust from our policymakers in terms of what IT can be used for. So, where we have an environment where the legislative and policy environment isn't very favourable, to really expand, expanding and tapping into and leveraging on it. And I think our legislative and policy environments are still very restrictive. Participant #8

… if I look in the public sector, the questions that we get asked is, where's the information being stored, we wanted to be stored inside the country, we wanted to be installed inside the physical server within our walls, and actually, technology has moved far beyond that instead of talking about cloud-based services, which are cheaper, faster and better able to respond to needs. Participant #9

Participants support that IT has a positive role in strengthening the social mission of social enterprises to reduce potential social mission drift.

Because I think so there's the external and the internal because also for the survival of intent of social interpret enterprises, the internal is very important, but it also helps us to have better HR [Human Resources] processes, IT enables us to understand our staff much better. Participant #8

Participant #8 acknowledged the IT role towards the long-term survival and sustainability of social enterprises.

> … looking at Africa and look in countries like Nigeria, countries like Kenya, where, you know, these are big markets that are not being tapped in terms of solving some of our greatest challenges. Climate change, tech is becoming very important. Corruption technology is becoming very important. So there is a lot technology can actually help in terms of addressing some of our social problems that we're facing. So, there's no question about whether there is room for it, I think we're using less of IT.

> But also, in terms of building for markets to have more trust, because then you're able to share information much faster and more reliable data that you share with the market. But also, I think it also enables us to build more effective and efficient internal processes. Participant #8

Participant #1 acknowledged that NPOs had lost the support of the younger generation because of relying on the legacy brand and a lack of digital marketing.

> … that was a sobering realisation to understand that we've lost touch in terms of the younger generation. Participant #1

Participant #1 again realised that this immense challenge of not leveraging the demographic advantage of the youth bulge in South Africa also presents a significant opportunity to transform as an organisation to become digitally relevant again.

> … Well, there's a big challenge, but it's linked to the big opportunity. The big challenge is how do we close that gap? How do we, in a modern world with so much distraction, so much information, so much noise? How do we cut through that, and make sure that we make we become relevant again, in people's lives? Participant #1

Some participants felt an appointment of a CIO as a management practise is required to advance future SE business models through IT and digital capabilities. This will drive a culture of innovation, building scalable IT solutions, executive championing of change management and using the IT strategy to catalyse the business strategy and build resilience in the organisation.

> Strategically, we don't have a Chief Technology Officer, we should, but we don't. Participant #1

> … a digital strategy which would help us build resilience in the system.
> Participant #8

Participant #2 experienced an inability to quickly pivot to online training in their organisation because of compliance regulations.

> So the entrepreneurs [training] is online, the professionals [training] is online, the truck drivers is manual [training], because the regulatory authority has not allowed anybody to make it online. Participant #2

5.4.4.2 Findings Summary

IT and digital enablement positively contribute to agility and performance in social enterprises. IT and digital capabilities assist in creating new products and services in markets needed for the social enterprise to remain relevant. IT plays a positive role in long-term survival, sustainability, strengthening the social mission and subsequently reducing the risk of mission drift. Social enterprises with low digital maturity and low digital literacy lost the support of the younger client base owing to low digital marketing presence.

Policymakers can exploit the demographic divide in South Africa by establishing policies that promote youth access to leverage technology needed to solve persistent social problems. The regulatory and compliance framework lacks support for rapid digital transformation, resulting in missed opportunities for social entrepreneurs to exploit. Several participants recommended an appointment of a CIO to drive the IT strategy at the executive level, aiming to catalyse the business strategy through IT enablement.

5.4.5 Theme 9: Understanding the Function of IT-Enabled Business Transformation in Improving Social Entrepreneurship Business Relevance

5.4.5.1 Findings

Social enterprises are part of the knowledge economy, elevating the importance of building data to make strategic decisions and identify growth areas. Digital literacy of stakeholders and the digital maturity of organisations are fundamental to receiving support and participation from all stakeholders, supporting the digital transformation required for the long-term sustainability and business relevance of social enterprises.

> I think we're cognisant that we are, although we're a health impact NGO, social enterprise, we are part of it of the knowledge economy. Yeah. And when

> I say that it's about understanding the importance of data, building data, and using that data to make strategic decisions around moving forward around growing particular areas. We spoke about the dashboards earlier, informed by data as an example. Participant #1

Participant #7 revealed that their organisation dedicated effort annually to host hackathons where new IT solutions broaden options to solutions to social problems using IT and digital capabilities. This presents an opportunity to create space for digital innovation and adopt advanced digital technologies to facilitate the digital transformation from traditional business models while improving business relevance and scaling social influence.

> I think one of the things that we do that almost every year is to have hackathons, right. And the idea around hackathons is to you know, you know, broaden our solutions to social problems. Participant #7

Participant #11 revealed that through strategic collaboration and partnerships, social enterprises were sharing IT infrastructure and technology environments to leverage economies of scale and optimise cost.

Participants had various experiences, challenges, and opportunities in digital transformation journeys, depending on their organisational orientation, digital orientation, and digital maturity. Several barriers to market entry are related to the culture of corruption, monopolies by big market participants and regulatory and compliance policymakers that inhibit total IT and digital exploitation to solve social problems.

Participant#8 pointed out a challenge that inhibits young entrepreneurs from rising and to solve social problems using IT and digital capabilities. This creates barriers to the entry of young entrepreneurs into the market economy.

> … we have a lot of monopolies in the sector. And how do you then break those monopolies because you need the young entrepreneurs to rise? And for young entrepreneurs to rise, you need to break the monopolies. So monopolies that exist are a bigger, a bigger challenge, especially in these markets, and, and definitely some of it is because of corruption. So again, it's still a major, major challenge that inhibits entrepreneurs. Participant #8

Several social enterprises embarked on a digital transformation journey because they recognise the value it contributes to their organisations—a digital strategy supported by a digital quality framework and minimum digital standards to centralise digital

capabilities. Change management and training are at the centre of technology adoption to embrace the future of social enterprises, relying on a digital delivery model.

Participant #3 disclosed that as part of their digital transformation journey and roadmap, their organisation in 11 countries developed a digital strategy supported by a digital quality framework and minimum digital standards for consolidation across 11 countries by creating centralised shared services digital capability.

> So we developed a digital strategy together for 11 countries. We developed a digital quality framework which said you know, what is the minimum digital standards we need to apply across the 11 countries
>
> … we have come to a point where it would make sense to have a centralised shared services environment and a centralised digital capability that we can deliver across the globe. Participant #3

Participant #3 revealed that the benefit of the COVID-19 pandemic accelerated digital transformation from what traditionally could have taken years to execute, reduced to months of execution, with organisations willingly availing resources to enable business continuity.

> I think our research capability and our research reach is better than it was before. So, was this all possible before a pandemic? Yeah, eventually, but it would have taken another 10-15 years. While all of that was expedited into six months. Participant #3

Participant #7 confirmed from experience that cyber-attacks had posed online credibility challenges in their organisation for a long time. Social enterprises need to build resilience in their IT platforms against cyber-attacks.

> I guess another one, which is quite hectic, is getting hit to cyber-attacks… online business or in the cloud or on Amazon, etc. and we got hammered… that affected our online credibility for a long time. Participant #07

5.4.5.2 Findings Summary

The findings amplified the COVID-19 pandemic as a moderating factor for the acceleration in IT adoption from what traditionally could have taken years to execute, reduced to months of execution. Social enterprises understood the antecedents for IT-enabled business transformation to remain relevant to their stakeholders. This includes

driving outcomes, such as information security resilience, digital maturity, cultivating a digital innovation culture, and overcoming institutional and market barriers to entry.

5.4.6 Category B Conclusion: Social Entrepreneurship Business Models

Social enterprises are part of the knowledge economy and adopting ITDCs is critical in the digital delivery of products and services. The ITDCs portfolio of social enterprises is varied and moderated by their strategic orientation, such as business and digital orientation, market, institutional factors, including the various industry characteristics presented. Most FPOs possessed high digital maturity in their business models. It was predominantly in the healthcare industry, hinting at a solid presence of high technology intensity in the healthcare industry.

IT-emphasised challenges and opportunities mostly related to poor network connectivity infrastructure, the prohibitive cost of data, unequal access to information based on status, a lack of technology innovation, cyber-attacks, and unreliable power supply owing to constant and unpredictable load shedding, a barrier to entry into new and specific markets lack funding resources and low digital literacy in society.

The research findings further show the IT-related opportunities to exploit the demographic dividend driving IT in an initiative-taking mindset in IT business transformation adoption. Barriers of entry into new and specific markets were identified as the culture of corruption, monopolies by prominent industry participants and ineffective policies that inhibit full exploitation of IT and digital capabilities by social entrepreneurs to solve social problems.

5.4.7 Chapter Conclusion

This chapter provides the research findings of the nine themes that emerged from the data patterns collected and grouped into categories supported by the literature review in Chapter 2. The themes were aligned with the three research sub-questions, comprising the main research question. A notable trend from the research findings shows NPOs appeared to have focused on their own survival and subsequently neglected investment in developing IT and digital capabilities. FPOs proactively invested in developing IT and digital capabilities to grow and transform their organisations continually.

The research findings, based on the participants' perceptions, show that IT enablement of sensing, seizing and reconfiguration capabilities in social enterprises contributed towards efficiency, productivity, growing stakeholder network and stronger stakeholder

relationships through improved information visibility assisting informed decision-making and performance tracking and evaluation. Through strategic partnerships and collaboration, social enterprises could build resilience and overcome barriers to market entry triggered by the digital divide influenced by socio-economic conditions. In Chapter 6, the findings are further discussed in greater depth, contrasted with Chapter 2: LITERATURE REVIEW.

CHAPTER 6: DISCUSSION OF RESULTS AND RESEARCH OUTCOMES

6.1 Introduction

This chapter compares the themes emerging from the findings in Chapter 5, contrasted within the context of the literature review in Chapter 2. The discussion of results and outcomes is grouped into theoretical categories derived from the literature review in Chapter 2.

6.1.1 Category A: IT-Enabled Dynamic Capabilities

6.1.2 Theme 1: IT Enablement of Social Entrepreneurship Sensing Capabilities

6.1.2.1 Main Theme Findings

The findings indicate that most participants observe that IT and digital capabilities enable SE dynamic abilities in sensing threats and opportunities in the market environment. Interactions through stakeholder engagement and participation were critical to perceiving the environment. The findings further reveal that IT and digital capabilities enable scale and the greater reach of stakeholders. This is conducted through the dynamic feedback intertwining in real time between the organisation and crucial stakeholders; therefore, strengthening and creating new stakeholder relationships through trust-building, translating into more significant social influence.

NPOs presented patterns of low digital maturity of their organisations and inadequate digital literacy of stakeholders in their network, therefore, lacking effective digital marketing. NPOs demonstrated inadequate IT investment in developing IT and digital capabilities, remaining reliant on traditional face-to-face stakeholder interactions to sense their environment. NPOs lack a proactive approach in responding to market dynamics. Most NPOs represented mature organisations for longer than four years, relying on their brand legacy for market relevance and less on active marketing.

FPOs presented an adequate digital maturity and elevated digital literacy. They detected threats and opportunities in disruptive and volatile market environments employing their in-house IT and digital capabilities and social media platforms. FPOs posed more robust and advanced sensing capabilities of their internal and external market environment owing to IT enablement compared to NPOs.

6.1.2.2 Discussion of Main Findings

Similarities were established between research findings and extant literature. IT and digital capabilities enable SE dynamic capabilities to sense threats and possibilities in the market. According to Mikalef, Pateli, and Van De Wetering (2016) and Mikalef and Pateli (2017), IT-enabled sensing capabilities enhance the analysis or environment knowledge, creating hyper-awareness of the ecosystem. This includes competitors understanding the changing market landscape and proactively managing the changes employing digital technologies. Investment in IT-enabled detection capabilities strengthens the organisation to employ technology to identify emerging opportunities, assessing how to leverage them to create innovative products and services to gain competitive advantage (Teece, 2007). Bhardwaj and Srivastava (2021) emphasise that IT-enabled sensing capabilities are a mechanism for opportunity and threat recognition (Bhardwaj & Srivastava, 2021).

The findings further reveal that IT and digital capabilities enable scale and the greater reach of stakeholders through the dynamic feedback circuit in real-time between the organisation and its crucial stakeholders. This reinforces and generates new stakeholder relationships through trust-building, translating into more significant social influence. This follows the extant literature from Ince and Hahn (2020) contend that integrating collaboration among stakeholders increases the organisation's reach and reinforces strategic decision-making. Ince and Hahn (2020) further established that communication with the stakeholders in the network facilitates sensing and scoping of the identified opportunities. This enables critical resource access and mobilisation to seize the identified opportunities while integrating collaborators in the network. It further expands the organisation's reach by converting into strengthened strategic decision-making capabilities.

According to the research findings, NPOs presented patterns of substandard digital maturity of their organisations and inadequate digital literacy of stakeholders in their network, therefore, unable to achieve effective digital marketing. NPOs demonstrated inadequate IT investment in developing IT and digital capabilities and mostly depend on traditional face-to-face stakeholder interactions to perceive their environment. NPOs lack a proactive approach in responding to market dynamics. FPOs presented a beneficial digital maturity and elevated digital literacy. They perceived threats and opportunities in disruptive and volatile market environments, employing their in-house IT and digital capabilities and social media platforms.

FPOs presented robust and progressive sensing capabilities of their internal and external market owing to IT empowerment compared to NPOs. Insufficient literature exists, specifically confronting characteristics of NPOs and FPOs in IT enablement of discerning capabilities within SE. Extant literature in IT enablement of dynamic capabilities is discussed at the social enterprise organisational level, despite the typology of social enterprises. According to Bhardwaj and Srivastava (2021), SE research is still developing and fragmented, with demands for the synthesis of various dimensions and constructs.

Some researchers in SE (Vézina, Selma, and Malo, 2019; Ince & Hahn, 2020) attempted to explore DCs of SEs; however, a single integrated, coherent framework of DCs in SE remains outstanding. Benitez, Ray, and Henseler (2018) reveal that ITDCs and organisational DCs hold distinct order levels influencing business models. The contextual and environmental factors affecting the tendency of various IT capabilities to produce business value are still deficiently understood (Felipe, Leidner, Roldán, & Leal-Rodríguez, 2019).

6.1.2.3 Conclusion

The research findings follow the extant literature in IT-enabled sensing capabilities at the social enterprise level. This involves an organisation and stakeholder relationships employing IT and digital aptitudes. A solid theoretical foundation for the observations, is therefore ensured. Insufficient literature exists to evaluate the research findings' consistency at the typology levels of social enterprises, such as NPOs and FPOs in diverse industries.

6.1.3 Theme 2: IT Enablement of Social Entrepreneurship Seizing Capabilities

6.1.3.1 Main Theme Findings

The research findings demonstrate that efficiency and productivity in social enterprises could be achieved through IT enablement, signifying a further positive effect on social influence. It was also revealed that technology-enabled expanding products and services by leveraging digital capacity causes expansion of social power. Effective and real-time performance monitoring and evaluation enabled by IT help identify opportunities for business transformation. Participants also observed that business intelligence and advanced real-time data analytics through IT enablement created visibility for stakeholders. Data collection, data integrity, and data reliability through IT-supported

participants' strategic and informed business decisions. Social enterprises with elevated digital maturity advantaged their digital aptitude to seize opportunities beyond geographical borders easier and seamlessly than the brick-and-mortar and face-to-face delivery model. This introduced limited seizing abilities in inconstant and disruptive market environments.

6.1.3.2 Discussion of Main Findings

The research established that efficiency and productivity in social enterprises could be achieved through IT enablement. The research findings also indicated that technology-enabled expanding products and services by leveraging existing digital capacity causes intensifying social influence, which had a further positive effect on social influence. This followed Mikalef, Pateli, and Van De Wetering (2016) and Mikalef and Pateli (2017) that IT-enabled capturing through mobilisation and coordination of resources to address the opportunities identified through sensing could capture value for the organisation with the exploitation of digital technologies. Mikalef, Pateli, and Van De Wetering (2020) emphasise that IT-enabled coordination enables effectiveness through synchronised and optimised work output by various resources and business units.

The research observed that business intelligence and advanced real-time data analytics through IT enablement created visibility for stakeholders. Data collection, data integrity, and data reliability through IT assisted participants in strategic and informed business decisions following the extant literature. According to Mikalef, Pateli, and Van De Wetering (2020), IT capabilities for integrating and aggregating information and knowledge should be advantaged. This involves cooperation with business stakeholders, suppliers, and customers, while streamlining business processes, enabling effective decision-making. Torres, Sidorova, and Jones (2018) interpret business intelligence and data analytics as perceiving and seizing components of dynamic capabilities, contributing to organisational performance.

The findings revealed that social enterprises with high digital maturity leveraged their digital capacity to seize opportunities beyond geographical borders easier than the brick-and-mortar and face-to-face delivery model, presenting limited seizing capabilities in volatile and disruptive market environments. This follows extant literature that IT-enabled integration capabilities remove organisational boundaries while promoting data integration and accessibility across geographically dispersed business areas (Bhardwaj, Bhardwaj, & Bendoly, 2007). IT-enabled integration and coordination capabilities

developed synergies, providing effective stakeholder communication and cooperation (Enkel & Heil, 2014). This includes enhancing the ability to produce and develop new products and services (Setia & Patel, 2013).

According to Van De Wetering and Maaike (2021), ITDCs contribution and implications on social value creation constitute part of the SE business models. This requires further investigation. The literature review confirms inadequate knowledge about the ITDCs contribution towards social influence.

6.1.3.3 Conclusion

Similarities were established between research findings and literature in IT-enabled seizing capabilities at a social enterprise-level and an organisation. This provides a solid theoretical foundation of the observations in achieving productivity, efficiency in social enterprises, effective performance monitoring and evaluation, stakeholder collaboration, and decision-making processes through business intelligence and advanced real-time data analytics. This involves smooth business transformation and geographical business expansion through IT enablement. Prior research confirms inadequate knowledge about the ITDCs contribution towards social influence.

6.1.4 Theme 3: IT Enablement of Social Entrepreneurship Transformation Capabilities

6.1.4.1 Main Theme Findings

The research findings reveal that in NPOs, IT enablement in reconfiguring assets, business processes, and resource allocation was slow and constrained. Most resource allocation and business process changes were perpetrated by the need for survival rather than long-term growth and sustainability.

FPOs hold elevated digital maturity and a digital primary business model. The research findings reveal they aggregated their social influence by swiftly exploiting market opportunities and creating new products and services. This was achieved effortlessly by reconfiguring and integrating IT assets and infrastructure capabilities, involving smooth systems integration.

Participants agreed that strategic collaboration and partnerships help share the IT infrastructure burden to construct new products and services through digital transformation and reduce barriers to new and specific market entry.

6.1.4.2 Discussion of Main Findings

Similarities were established between research findings and literature in strategic collaboration and partnerships to aid businesses through digital transformation and reduce entry barriers to new markets. This follows Mikalef and Pateli (2017) and Mikalef, Pateli, and Van De Wetering (2020), indicating IT-enabled transformation is conducted through reconfiguration of the resources and business processes. This leads to strategic partnerships to continually renew products and services in response to changes in the market using IT capabilities.

The scarcity of resources and the commitment to achieve the social mission motivated the strategies of cooperation and co-opetition rather than competition (Clarke & Crane 2018; Barinaga, 2018). A hybrid cross-sectoral collaboration and multi-stakeholder engagement (Ramus & Vaccaro, 2017) allows for effective social value prioritisation, resource strategy, and shared learning in mutual value generation (Quélin, Kivleniece, & Lazzarini, 2017). Collaboration among individuals, organisations and the state for a social cause drives the social value creation process (De Bruin, Shaw & Lewis, 2017).

The research findings demonstrate that FPOs, compared to NPOs, have predominantly high digital maturity and a digital primary business model. They aggregated and expanded their social influence by exploiting opportunities in the market and producing new products and services. This was achieved effortlessly by reconfiguring and integrating IT assets and infrastructure capabilities involving system integration. Inadequate knowledge exists about the characteristics; little is known about ITDCs' strategical influence on the social enterprise and its business model decisions moderated by their SE orientation.

Mikalef, Pateli, and Van De Wetering (2020) contend that ITDCs are an antecedent for competitive advantage under volatile market conditions. This could be owing to poor IT-enabled sensing capabilities since IT-enabled sensing enhances the scanning or learning of the environment to create hyper-awareness of the ecosystem. This includes competitors understanding the changing market landscape and proactive management of the changes detected using digital technologies (Mikalef, Pateli, & Van De Wetering, 2016; Mikalef & Pateli, 2017). It is a mechanism used for opportunity and threat recognition (Bhardwaj & Srivastava, 2021).

6.1.4.3 Conclusion

From the literature review, the research findings support Clarke and Crane 2018; Barinaga (2018), Ramus and Vaccaro (2017) and De Bruin, Shaw and Lewis (2017) in strategic collaboration and partnerships to aid businesses through digital transformation, reducing barriers to new and specific market entry.

This provides a strong theoretical foundation to broaden the SE business model conceptualisation to include cross-sector cooperation and partnerships to overcome challenges involving institutional and market entry barriers. The literature lacks information regarding ITDCs in the SE context at typology levels of social enterprises, such as NPOs and FPOs in various industries.

6.1.5   Theme 4: IT Infrastructure and Resources Requirements for IT Enablement in Social Entrepreneurship Business Models

6.1.5.1 Main Theme Findings

Participants identified the following IT infrastructure and IT resource requirements. IT infrastructure requirements include: IT cloud-based hosting, physical servers, integrated modular and scalable IT platforms, laptops and computers, network connectivity infrastructure, software licensing, information and cyber security infrastructure, mobile phones, mobility software applications, data-free IT platforms for marginalised and vulnerable social groups and power supply alternatives to mitigate the influence of long-term and regular power interruptions, such as load shedding. The IT resources, including skills and competencies requirements, include the development and design team, financial resources, process engineers, data architects, market researchers, and various stakeholder networks that are end-users of the IT systems.

6.1.5.2 Discussion of Main Findings

The research findings identified the IT infrastructure and resource requirements consistent with the extant literature. ITDCs was defined as the ability of the organisations to exploit IT assets, IT resources, and IT competencies with additional organisational resources and capabilities to address the changes in the high-paced business environment (Mikalef, Pateli, & Van De Wetering, 2016). Premised on the RBV phenomenon, organisations can identify and assess IT assets, IT infrastructure, IT resources, and IT capabilities despite other organisational resources and capabilities. They can deploy them strategically to achieve a sustainable competitive advantage (Van

De Wetering & Besuyen, 2021). IT infrastructure capabilities may include cloud computing, big data, and digital technologies, such as the Internet of Things, with the digital logic required to consider in implementing business models (Gregori & Holzmann, 2020). IT capability was defined as mobilising and deploying IT-based resources with other organisational resources and capabilities to remain competitive (Mikalef, Pateli, & Van De Wetering, 2016).

Research findings regard the disposal of data-free IT platforms for marginalised and vulnerable social groups and power supply alternatives to mitigate the influence of long-term and regular power interruptions. This affects the availability of IT systems. Inadequate information is available in the body of theoretical knowledge regarding ITDCs in the SE context; for example, whether unpaid IT infrastructure and resource at the disposal of the disadvantaged social group influence the social enterprise and their business model decision. From an analytical perspective, the findings assert that free IT infrastructure and resources benefited society by including marginalised and vulnerable social groups, integration into the knowledge economy, and increasing social influence.

6.1.5.3 Conclusion

Prior research noted the importance of IT infrastructure and resources requirements, supported by the research findings. This study proved that accessibility of free IT infrastructure and resources to the disadvantaged members extends the stakeholder network of social enterprises. This extends the understanding of ITDCs infrastructure and resources requirements in the SE context.

6.1.6　Category A: IT–Enabled Dynamic Capabilities Conclusion

In reviewing the literature, the findings in Category A, Themes 1 to 4, support the literature; however, inadequate information exists on the association between ITDCs and SE business models at typology levels of social enterprises, such as NPOs and FPOs in various contexts.

6.1.7 Category B: Social Entrepreneurship Business Models

6.1.8 Theme 5: Insourced versus Outsourced IT Capability and Support

6.1.8.1 Main Theme Findings

NPOs across four industries, observed as poor in digital maturity, adopted an outsourced IT capability and support model. The exception was one NPO in the employment industry with a digital primary business model with high digital maturity and an insourced IT capability and support. FPOs, observed to be high in digital maturity and literacy, adopted an insourced IT capability and support model. Organisations with a high digital maturity adopted an insourced IT capability and support model, whereas organisations with a low digital maturity adopted an outsourced IT capability and support model.

6.1.8.2 Discussion of Main Findings

The research findings followed the extant literature from Majhi, Anand, Mukherjee, and Rana (2021), affirming that while ITDCs add value to organisations operating in rapidly changing environments, additionally organisations are met with numerous challenges in the development, deployment, and maintenance of the fit-for-purpose ITDCs portfolios. ITDCs were demonstrated to lack uniform strategic advantages towards organisations; therefore, the need to strategically accomplish optimal ITDC configurations is important based on the strategic business orientation of the organisation (Majhi, Anand, Mukherjee, & Rana, 2021).

Social enterprises adopted various IT capability and support models based on the fit-for-purpose ITDC portfolios regarding their strategic business orientation. Muñoz and Kibler (2016) further contend that since SE business models are driven by a dual mission, accomplishing an optimal ITDC portfolio configuration to leverage the ITDCs value contribution effectively concerns strategic fitness (Majhi, Anand, Mukherjee, & Rana, 2021). In reviewing the literature, inadequate information was acquired on the association between ITDCs portfolio and SE business model decisions.

6.1.8.3 Conclusion

The research findings followed the extant literature from Majhi, Anand, Mukherjee, and Rana (2021) and Muñoz and Kibler (2016). They indicate that SE business models should adopt an optimal ITDCs portfolio fit-for-purpose based on strategic advantages. Besides, inadequate knowledge was established on the association between ITDCs

portfolio and SE business models decisions. The findings reveal that the social enterprises adopt either an outsourced or an insourced IT capability and support models based on their business and digital orientation.

6.1.9 Theme 6: Digital Typology of Social Entrepreneurship Business Models

6.1.9.1 Main Theme Findings

From the research findings, two types of social enterprise digital orientations emerged, based on their business operating model. These include the digital primary business model and the primary business model leveraging IT and digital capacity for support. Social enterprises adopting a digital primary business model are IT-based organisations depending on IT and digital capabilities to conduct business. Social enterprises that use IT as a support function facilitate business processes; however, IT is not their primary business. Research findings indicate that organisations still prefer a blended digital delivery approach of using a combination of face-to-face and digital channels to deliver products and services. The compound delivery approach was necessary when still developing and marketing new services and products, reaching various stakeholder groups.

6.1.9.2 Discussion of Main Findings

The research findings follow the extant literature. Sustainable business models for SE must remain innovative and continuously define new business logic to establish a positive and progressive society (Cherrier, Goswami, & Ray, 2018). Since SE business models are driven by a dual mission (Muñoz & Kibler, 2016), social enterprises need to leverage digital capabilities to promote value propositions that blend economic and social value (Gregori & Holzmann, 2020). Social enterprises adopted digital orientations and delivery models fit-for-purpose in achieving their dual mission based on their environment.

6.1.9.3 Conclusion

This study supports evidence from previous observations of Cherrier, Goswami, and Ray (2018), Muñoz, and Kibler (2016), and Gregori and Holzmann (2020). In reviewing the literature, no data identified the association between the digital typology of SE business models and ITDCs.

6.1.10 Theme 7: IT Challenges and Opportunities for Social Enterprises in Developing Economies

6.1.10.1   Main Theme Findings

The results indicated IT challenges as ailing network connectivity infrastructure, high cost of data and Wi-Fi connectivity, funding resource constraints, skills shortage, limited technology innovation, and various hurdles to enter new markets. Another important finding on IT-related opportunities was identified as leveraging the demographic divide and, through favourable policy frameworks, promoting sharing of IT infrastructure collaboration. This is conducted through strategic partnerships, reducing barriers to entry new markets while increasing participation by social entrepreneurs. Freely accessible IT infrastructure and resources were also recommended to incite the disadvantaged and marginalised society in the knowledge economy, expanding the stakeholder network for social enterprises.

6.1.10.2   Discussion of Main Findings

Earlier studies observed the importance of social enterprises in embracing challenges and opportunities driven by their commitment to their social mission. Gupta, Chauhan, Paul, and Jaiswal (2020), and Battilana, Sengul, Pache, and Model (2015) contend that social entrepreneurs need to strive to accomplish joint social and commercial intentions continually but experience vast challenges hindering social influence. Social enterprises are expected to adopt business models, offering creative solutions to complex and persistent social problems with limited and disparate resources to create social value (Zahra & Wright, 2016).

Social enterprises' success is the ability to embrace the multidimensional challenges and tensions inherent in their hybrid design (Battilana, 2018; Savarese, Huybrechts, & Hudon, 2021). Social enterprises experienced several challenges, weakening stakeholder commitment and reputation damage (Grimes, Williams, & Zhao, 2019). Access to finance was identified as the dominant impediment of social enterprises (Sroka & Meyer, 2021).

Lumpkin and Bacq (2019) indicate that the COVID-19 global crisis created a platform for social entrepreneurs to exploit strategic partnerships and generate innovative solutions. Replicating the scarcity of resources and the commitment to achieve the social mission motivated the strategies of cooperation and co-opetition rather than competition (Clarke

& Crane 2018; Barinaga, 2018). This widens the SE business model conceptualisation to include cross-sector collaborations and partnerships (Clarke & Crane, 2018; Stadtler, 2018; Barinaga, 2018) to create and deliver economic and social value to conquer challenges of resources scarcity and institutional obstacles. Ince and Hahn (2020) further contend that intensifying collaboration among stakeholders increases the organisation's ambit while reinforcing strategic decision-making.

6.1.10.3 Conclusion

The research findings support the observations, as mentioned in the literature review. Inadequate knowledge exists, though, on the demographic dividend and the freely accessible public IT infrastructure and resources recommended as a mechanism of expanding the stakeholder network for social enterprises influences of ITDCs and their contribution towards SE business models.

6.1.11 Theme 8: The IT Influence on Future Strategic Postures of Social Entrepreneurship Business Models

6.1.11.1 Main Theme Findings

IT and digital enablement positively contribute to agility and performance in social enterprises. IT and digital capabilities help create new products and services in future markets for the social enterprise to remain relevant. IT is pivotal in long-term survival, sustainability, strengthening the social mission of social enterprises reducing the risk of social mission drift. Social enterprises with low digital maturity and low digital literacy lost the support of the younger client base owing to low digital marketing presence. Several participants recommended an appointment of a CIO to drive the IT strategy at the executive level, aiming to catalyse the business strategy through IT enablement.

Policymakers can exploit the demographic dividend in South Africa by establishing favourable legal policy frameworks. These should promote youth access to leverage technology needed to solve persistent social problems. The regulatory and compliance framework opposes rapid digital exploitation of opportunities by social entrepreneurs, creating a participation hurdle.

6.1.11.2 Discussion of Main Findings

Providing the ITDCs research, Felipe, Leidner, Roldán, and Leal-Rodríguez (2019) indicated that IT capabilities benefit organisational performance through the full

mediation of organisational agility moderated by the technology intensity of the industries. ITDCs hold improved mobilisation and coordination of organisational resources. Improvements include integration of business processes and aggregation of information and knowledge, and collaboration and communication with business stakeholders. This leads to improved decision-making capabilities (Mikalef, Pateli, & Van De Wetering, 2020; Bhardwaj, Bhardwaj & Bendoly, 2007; Enkel & Heil, 2014).

In reviewing the literature, inadequate information exists about the ITDCs and how it influences the legal policy framework. Several participants confirmed the importance of appointing a CIO in social enterprise to catalyse the business strategy through IT enablement of dynamic capabilities. From the literature review, inadequate information exists about how the appointment of a CIO would influence the ITDCs contribution towards SE business models.

6.1.11.3   Conclusion

In reviewing the literature, the research findings were consistent and supported by the extant body of literature. Knowledge lacks, though, regarding the legal policy framework and the appointment of a CIO influence on the ITDCs contribution towards SE business models.

6.1.12 Theme 9: Understanding the Function of IT-enabled Business Transformation in Improving Social Entrepreneurship Business Relevance

6.1.12.1   Main Theme Findings

The findings amplified the COVID-19 pandemic as a moderating factor for the acceleration in IT adoption. What traditionally could have taken years to execute was reduced to months of execution. Social enterprises understood the antecedents for IT-enabled business transformation to remain relevant to their stakeholders. This includes driving outcomes, such as information security resilience, digital maturity, cultivating a digital innovation culture, and overcoming institutional and market barriers to entry.

6.1.12.2   Discussion of Main Findings

Earlier studies (Lumpkin & Bacq, 2019; Mair, 2020) observed the devastating influence of COVID-19 on society. SE intervention was obliged as a remedial action. Jalali, Siegel, and Madnick (2019) acknowledged the need to develop cyber security capabilities to mitigate the significant increase in cyber-attacks by adopting digital technologies.

Innovation was defined as a dimension of SE orientation (Alarifi, Robson, & Kromidha, 2019; Dwivedi & Weerawardena, 2018). The research findings support the literature. Inadequate data in the literature exist, though, on how the COVID-19 pandemic and digital maturity influence the ITDCs' contribution towards SE business models.

6.1.12.3 Conclusion

The study demonstrates the findings supporting the literature. Knowledge lacks, though, on whether the COVID-19 health crisis, digital maturity and the cultivation of the digital innovation culture influence the ITDCs' contribution towards SE business models.

6.1.13 Category B Conclusion

Findings in Category B, Theme 5 to 9, support the literature drawn from the literature review. A lack of knowledge exists, though, on whether volatile and turbulent environmental conditions, such as the COVID-19 health crisis and the digital maturity, influence the ITDCs contribution towards SE business model relevance.

6.2 Chapter Conclusion

The study supports the existing literature, therefore, reinforcing the solid theoretical foundation of ITDCs' contribution towards SE business models. A lack of knowledge exists, though, whether factors, such as the strategic business orientation of social enterprises at typology level, demographic dividend, the legal policy framework, appointment of a CIO, digital maturity of social enterprises and their environment, and the COVID-19 global health crisis, influence how the ITDCs contributes towards business model decisions and business relevance in the SE context. Studies provide inadequate knowledge of ITDCs' impact on social influence.

This research contributes theoretically to the literature in ITDCs and SE business models, therefore, providing theoretical solid support. The study contributes to the social enterprises in understanding how ITDCs can be leveraged to improve organisational performance. This understanding includes strong commitment to the social mission and, stakeholders, creative ways to overcome institutional barriers, creating digital channels, and improve SE market participation, expanding social influence, geographical expansion and improving business relevance for their long-term sustainability and growth.

6.3 Conceptual Framework

The conceptual framework in Figure 5 is derived from the literature. The study results illustrate the elements significant to the research problem, theoretical relevance, and scope of the study.
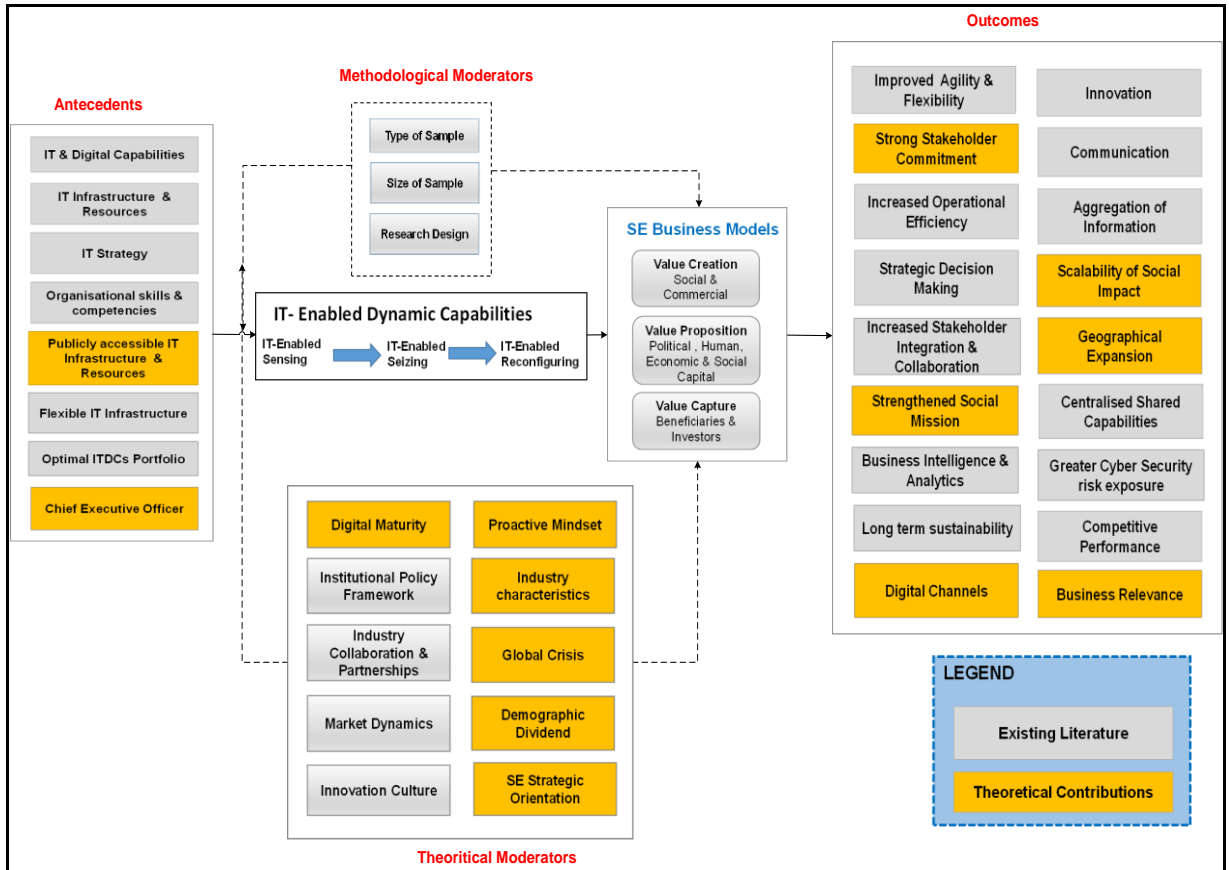
Figure 5

Conceptual Framework

Source: Researcher's compilation

CHAPTER 7: Research Conclusion

7.1 Introduction

The concluding chapter presents a snapshot of the research. This includes a summary of main research findings, research contributions, implications, future research direction, and research limitations.

7.2 Review of Research Aim and Research Questions

The study was directed to understand how IT-enabled dynamics capabilities contribute towards SE business models. The following main research was divided into three sub-research questions guided by the literature review in Chapter 2.

Main RQ: How do ITDCs contribute to SE business models?

RQ1: How are resources and capabilities used for IT enablement of dynamic capabilities in SE business models?

RQ2: How do SE business models address IT-related challenges and opportunities?

RQ3: How do ITDCs influence SE business models?

7.3 Principal Conclusion

7.3.1 RQ1 Conclusion

The study demonstrates that the IT resources and capabilities are employed as an antecedent to facilitate IT-enabled scanning and learning of threats and opportunities of the environment. Enhancing the IT-enabled sensing capabilities of the SE business models is, therefore, required. They are further employed for integration, collaboration between stakeholders, and reorganising IT-enabled organisational abilities. This intensifies the IT-enabled capturing and reconfiguration capabilities of social enterprises. The findings confirm that employing IT resources and capabilities required for ITDCs in SE business models was determined by the strategic orientation. This includes business orientation and digital orientation of the social enterprise needed to achieve sustainable organisational performance.

7.3.2 RQ2 Conclusion

The findings display that the IT-related challenges mainly relate to resource shortage, unequal access to information, vulnerability to cyber-attacks, and limited market participation. The IT-related opportunities were identified as establishing a favourable legal and compliance policy framework. This should inhibit social entrepreneurial participation through stakeholder collaboration and partnership, providing freely accessible IT infrastructure and resources for the disadvantaged communities. This will allow them to integrate into the knowledge economy, therefore, expanding the social network of stakeholders for social enterprises.

7.3.3 RQ3 Conclusion

The research findings conclude that leveraging ITDCs can influence SE business models in various ways. ITDCs can enhance stakeholder reach through improved stakeholder interactions and engagement, the business intelligence and advanced data analytics capabilities through IT enablement heightens the continuous real-time scanning and learning in a volatile and changing environment, allows for quick and informed business decision-making, effective resource allocation, improved productivity and efficiency, organisational agility, visibility to stakeholders and performance monitoring and evaluation. IT-enabled sensing and seizing capabilities enable seamless IT-enabled business transformation required to create new products and services and expand geographically.

7.3.4 Main RQ Conclusion

ITDCs have a positive influence on SE business models. Through the IT-enabled sensing, seizing, and transformation of organisational capabilities, social enterprises become responsive and relevant to their customers and beneficiaries. This, therefore, improves organisational performance, gaining a competitive advantage for long-term survival and growth. Expanding social influence and strengthening the social mission, while avoiding potential mission drift were observed from the findings. Increased exposure to cyber-attacks was revealed as a significant adverse risk of ITDCs. The study supported existing literature in ITDCs and their contribution to SE business models. Inadequate knowledge in the literature exists about various factors of the strategic business orientation of social enterprises at typology level, demographic dividend, the legal policy framework, appointment of a CIO, publicly available IT infrastructure and resources, digital maturity and the COVID-19 global health crisis influence. This involves

the ITDCs contribution towards business model decisions and business relevance in the SE context. From previous studies, a lack of information exists about the ITDCs' influence on social influence. The aim of the study was achieved by reviewing the aforementioned research questions.

7.4 Research Contribution

The study contributed theoretically and practically.

7.4.1 Theoretical

The study extends from the previous studies on ITDCs and SE business models. Provided the research in SE, a single integrated, coherent framework of DCs in SE is lacking (Vézina, Selma, and Malo, 2019; Ince and Hahn, 2020). The contextual and environmental factors influencing the propensity of various IT capabilities to create business value have still been misconstrued (Felipe, Leidner, Roldán, & Leal-Rodríguez, 2019). The study holds multiple theoretical contributions towards developing a cohesive framework of ITDCs as lower-order capabilities and by what means they contribute towards SE business models. The conceptual framework in Figure 5 illustrates the study's theoretical contributions.

7.4.2 Practical

The study contributed to social enterprises understanding how they can leverage ITDCs to improve organisational performance, cultivate social influence, and improve business relevance for their long-term sustainability and development. The devastating influence of the COVID-19 pandemic caused an extensive global crisis, leaving the social, health, and global economic state in disarray (Bacq & Lumpkin, 2021). Societies are more vulnerable than ever. In such unique cases, depending on social entrepreneurial activities to counteract economies while addressing urgent social needs, becomes a priority. Contingent on the strategic orientation of SE business models, fit-for-purpose ITDCs portfolios can create and capture value.

7.5 Research Implications

7.4.3 The Implications for Senior Management and Social Entrepreneurs

The study revealed that leveraging ITDCs in SE business models can enhance the extension of the stakeholder network and stakeholder intimacy. This will benefit social

influence while reinforcing their social mission to avoid a potential drift. The study revealed that IT-enabled sensing and seizing capabilities enable effortless IT-enabled business transformation. This is required to create new products and services while expanding geographically. Social enterprises, therefore, become relevant to their customers and beneficiaries, gaining a competitive advantage for their long-term survival and growth.

The business intelligence and advanced data analytics capabilities through IT enablement heighten the continuous real-time scanning and learning in a volatile and changing environment. It allows for quick and informed business decision-making, effective resource allocation, improved productivity and efficiency, organisational agility, visibility to stakeholders, and performance monitoring and evaluation. Decision-makers at social enterprise and social entrepreneurs should, therefore, consider a detailed IT approach supporting business strategy. They should consider adequate IT investment for implementing ITDCs in the SE business models. The study also revealed that exposure to cyber-attacks increase with the progression of IT enablement. The implication for senior management and social entrepreneurs is to develop information security resilience to guard the credibility of their social enterprises.

7.4.4 The Implications for IT and Telecommunications Industry Participants

The study suggests implications for the telecommunications and IT industry giants to cooperate and provide affordable and easily accessible IT infrastructure and resources to disadvantaged social groups. This policy would promote collective action and scope for sharing IT infrastructure and resources. This would deliver social change through cross-industry collaboration, co-opetition, and partnerships. The sharing IT infrastructure was observed as an inclusive approach for the disadvantaged social groups in the knowledge economy, therefore, aiding SE participation from the public.

7.4.5 The Implications for Policymakers

It is recommended that policymakers acknowledge SE's importance as part of the third economy sector (Saebi, Foss, & Linder, 2018). A favourable policy should be considered, leveraging the demographic dividend. This can reduce the institutional entry hindrances into new and specific markets perpetuated by the culture of corruption and monopoly by big industry participants. This will minimise social exclusion and stimulate social entrepreneurial activities at the local community level.

7.6 Recommendations for Future Research

The research aimed to better understand ITDCs and their contribution towards SE business models. Novel insights emerged from the data. Future studies can focus on the emergent insights noted. Provided that ITDCs research in SE is still emerging, this research effort could stimulate further exploration of ITDCs influence in SE business model in a broader context, other than the South African context, owing to additional moderators. These include market dynamics, industry orientation, strategic business orientation, institutional factors, and technology intensity of the business environment. This will add an improved understanding of ITDCs as lower-level capabilities in SE business models in a cohesive framework and how the moderating factors affect their propensity of ITDCs to improve organisational performance.

7.7 Research Limitations

The research was in ITDCs contribution to SE business models, excluding business model innovation and dynamic capabilities. The sample was more representative of the South African context and may not represent other contextual environments. Limited trustworthiness of knowledge capital remains a possibility despite the participants presenting vast knowledge and experience in SE across multiple industries. The cross-sectional study was conducted over a fixed period; therefore, further insights could emerge if a more extended assessment period is allowed, with larger sample size. The findings are based on individual perspectives and may not be generalised.

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APPENDICES

APPENDIX 1: INTERVIEW QUESTIONS

Semi-Structured Open-Ended Interview Questions

Duration: 60 minutes

Research Topic: The contribution of IT-enabled dynamic capabilities towards social entrepreneurship business models

Theme	Interview Questions
About the Interviewee and the Organisation	- Please briefly describe your organisation and explain your role in the organisation? - How long have you worked at the organisation? - Please share your background and experience in your involvement with social enterprises? - What is your social and/or environment mission? - How long has the organisation been in operation?
IT-Enabled Dynamic Capabilities (ITDCs)	1) Please describe whether and how you conduct market assessments and identify competitor intelligence using IT and digital capabilities? Examples are dashboards, mobile applications, online surveys, chatbots etc. in your organisation? What challenges and opportunities have you experienced from the exercise? 2) Tell me about an experience where your organisation was able to quickly take advantage of opportunities in the market to deliver services or products using IT capabilities you already have? 3) Can you think of any instances where your organisation was able to quickly change business processes and resource allocation in an agile manner to improve efficiency and productivity using IT capabilities? An example can be moving from manual to automated business processes allowing you to conduct business faster. Was this change in response to disruptive and unforeseen situations? 4) Do you believe social enterprises require IT and digital capabilities to perform competitively in disruptive and volatile market environments, for example COVID-19 global crisis where there is a lot of uncertainty? Please elaborate further if you have other examples. 5) How can using IT in your organisation improve your relationship with stakeholders in your network? An example can be using social media platforms. Does it increase your chances of extending your current network of stakeholders? Please elaborate.

Theme	Interview Questions
IT-Enabled Dynamic Capabilities (ITDCs)	6) What is your understanding of the IT infrastructure, for example computers, other IT equipment, IT network connectivity etc. and also IT resources, for example, IT trained support team, IT budget etc., that must improve the frequent use of IT in your organisation to achieve its social mandate? Please provide more examples, if any. 7) Which products and services in your organisation rely the most on the IT infrastructure and resources already mentioned before?
SE Business Models	8) Do you believe IT and digital capabilities can assist to create new products and services in future markets for your organisation to remain relevant? Please elaborate? 9) According to you, what are the biggest challenges and opportunities in IT with social enterprises in developing economies, such as the South African economy? 10) Do you believe IT positively contributes to the strengthening of the social or environmental mission in your organisation? Please elaborate your answer in detail. 11) Do you believe IT can contribute to the long-term survival and sustainability of your organisation? If so, please explain how? 12) In your view, do you see IT and digital enablement having a positive contribution towards agility and positive performance of the social enterprises? Please explain your answer. 13) From your vast experience in the social entrepreneurship field, which management practices are inclined to improve using IT to advance your organisation? For example, the management team can learn to approve decisions online instead of completing a manual form etc. Please provide more examples, if any.

Source: Researcher's own compilation

APPENDIX 2: INVITATION EMAIL

Subject Line: PARTICIPATION IN GIBS RESEARCH STUDY

Good Day [Participant],

Thank you for allowing this time to participate in my research. It is greatly appreciated.

I am conducting research on 'The contribution of IT enabled dynamic capabilities towards social entrepreneurship business models. The research will be conducted in a form of semi-structured interviews expected to last 60 minutes, and will help us understand, how do IT-enabled dynamic capabilities contribute towards social entrepreneurship business models? **Your participation is voluntary, and you can withdraw at any time without penalty.**

Any information in respect of any data gathered, captured or analysed in respect of the research work will be kept confidential. I simply intend to capture your thoughts and perspectives based on your knowledge and experience in social enterprises.

I have attached the informed consent letter for the interview (to be signed and returned before the interview). Looking forward to our discussion, keep well and safe in the meantime.

Thanks and Regards

[Researcher]

[Researcher contact details]

APPENDIX 3: INTERVIEW PROTOCOL

STEPS	SECTIONS
Step 1	**Research Project Name:** *The Contribution of IT Enabled Capabilities in Social Entrepreneurship* **Date:** **Time:** **Location:** Microsoft Teams **Interviewer:** Thandi Ntsane **Interviewee:** [Participant ID]

Step 2	*Opening and Welcome*
	  a. Greetings and welcoming of the participants.
	  b. Thanking participants for allowing their valuable time to participate in the research.
	  c. Confirm with the participant if the signed informed interview consent letter was received in order. Alternatively provide the first few minutes (10 minutes maximum) for the participant to sign the letter for the approval and acknowledge receipt.

Step 3	*Introduction and Background*
	  a. Provide background of the participant and motivation behind the chosen research topic.
	  b. Highlight the research aim and research topic to the participant.
	  c. Explain the structure of the interview and what to expect.
	  d. Despite the informed interview consent letter already signed by the participant at the time of the scheduled interview, the researcher still asked for participant permission to continue with recording the interview.
	  e. Commencement of interview recording. All interviewees were preferred keep the video on or off during the interview.
	  f. Several contextual questions about the interviewee's background, role, knowledge and experience.
	  g. Several contextual questions about the interviewee's organisation and to state their social mission.

Step 4	*Interview Questions* a. Used the interview guide to go through the interview questions. Used examples for clarity and follow-up questions for further exploration where needed.

Step 5	*Conclusion*
	  a. Extend gratitude to the participant for the interview.
	  b. Open for questions from the interviewee.
	  c. The researcher to ask the interviewee about their experience of the interview.

Step 6	*Request for further referrals*
Step 7	*Officially, close the interview.* Terminate the recording.

Step 8	*Interview feedback*
	  a. Extend gratitude to the interviewee for the interview.
	  b. The researcher to ask the participant about their experience of the interview.

Source: Researcher's own compilation

APPENDIX 4: INFORMED CONSENT FORM FOR INTERVIEWS

Note: This standard informed consent letter to be used in qualitative interviews, must be separate from interview guide, must be signed before the interview commences. The signed form must be stored separately from the data collected

I am conducting research on [*insert the topic of your research*]. Our interview is expected to last [*insert actual time for interview*], and will help us understand [*insert your main research question*]. Your participation is voluntary and you can withdraw at any time without penalty. By signing this letter, you are indicating that you have given permission for:

- The interview to be recorded;
- The recording to be transcribed by a third-party transcriber, who will be subject to a standard non-disclosure agreement;
- Verbatim quotations from the interview may be used in the report, provided they are not identified with your name or that of your organisation;
- The data to be used as part of a report that will be publicly available once the examination process has been completed; and
- All data to be reported and stored without identifiers.

If you have any concerns, please contact my supervisor or me. Our details are provided below.

Researcher name   Research Supervisor name
Email   Email
Phone   Phone

Signature of participant: _____
Date: _____

Signature of researcher: _____
Date: _____

APPENDIX 5: ETHICAL CLEARANCE

Gordon Institute of Business Science
University of Pretoria

Ethical Clearance

Approved

Dear Researcher

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

You are therefore allowed to continue collecting your data.

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

Ethical Clearance Form

Kind Regards

This email has been sent from an unmonitored email account. If you have any comments or concerns, please contact the GIBS Research Admin team.

Figure 6

Ethical Clearance Approval

APPENDIX 6: LIST OF CODES USED

No	List of Codes
1	Barrier to Market Entry: Exclusion of vulnerable and marginalised socail groups in rural locations
2	Barrier to Market Entry: Monopoly and Corruption
3	Benefit: COVID-19 Pandemic accelerated digital transform from years to months of execution
4	Benefit: Improved access to resources aided by cross industry collaboration
5	Benefit: IT enables performance monitoring and evaluation of the social impact
6	Benefit: Repeatable digital solutions allow for business model scalability
7	Business Orientation : Hybrid (Face-to-face and digital)
8	Challenge Manual process intervention prone to errors
9	Challenge: Digital divide between rural and urban areas
10	Challenge: Failure to enforce governance processes
11	Challenge: High Network Connectivity Costs
12	Challenge: High Risk of Social Mission Drift
13	Challenge: Inadequate Cybersecurity therefore increasing exposure to cyber attacks
14	Challenge: IT Skills and competency shortage
15	Challenge: Lack of industry information standards
16	Challenge: Limitation of finance resources
17	Challenge: Misalignement between job market demans and skills training
18	Challenge: Negative stigma that SE business models are not market competitive.
19	Challenge: NPO mindset, not a proactive mindset
20	Challenge: Poor Digital literacy
21	Challenge: Poor Digital Maturity & Readiness to respond to disruptions
22	Challenge: Proper capitalization for adequate resources required to be competitive
23	Challenge: Too much Reliance on IT Consultants for critical services
24	Challenge: Unfavourable Legal and Regularory Framework
25	Challenge: Unreliable power supply - loadshedding
26	Change Management & Training
27	Created new service during Covid 19 lockdown via digital platform
28	Cyber Attack Impact - Negatively affected online credibility
29	Data security
30	Demographic Advantage - Growing reliance on young people to use technology
31	Digital Literacy Level : People in industry still prefer face to face vs. e-learning
32	Digital Strategy builds resilience in the system
33	Digital Transformation Strategy aligned with Business Strategy
34	Economies of Scale challenge: Small size of organisation
35	Enables communicate across multiple stakeholders in organisation
36	Future Plans: Digital marketing to achieve market penetration
37	Improved Resource capacity through automation
38	Improved social impact
39	Improved stakeholder engagement and participation through IT
40	Internal capability - Reliance on Social Media Platform for Corporate Clients Engagement
41	Internal IT capability - Customer engagement and Surveys conducted through an internal IT platform
42	IT Budget - High cost of experienced IT resources
43	IT budget spend increased due to Covid 19 response plan for survival
44	IT Financial Resources: Small budget allocated for Information Security
45	IT Infrastructure- Cloud-based
46	IT Infrastructure Investment: To Improve Cybersecurity
47	IT infrastructure: Integrated IT and Digital platform
48	IT Infrastructure: Laptops and Computers

No	List of Codes
49	IT Infrastructure: Mobile applications
50	IT Infrastructure: Modular and Scalable Cloud Hosting Platform
51	IT Infrastructure: Network connectivity
52	IT Infrastructure: Software Licensing
53	IT regarded as Core : Fully Fledged and full-suite inhouse porduct design and technology team
54	IT regarded as Non-Core - Third party providing IT capability
55	IT Resources: IT budget is the majority cost as a porduct based digital business
56	IT Resources: Development, maintenance support and customer support happens internally
57	IT Resources: End-users to assist in developing fit-for-purpose IT solutions that work.
58	Length of service: Longer than 5 years
59	Management Practice - Appoint a Chief technology Officer
60	Management Practice : Resolve the disconnect at exec level between IT strategy, financial viability and sustainability to achieve social mission
61	Management Practice: management value and practice of looking for repeatable and scalable digital solutions
62	Management practice: Utilize IT to catalyze business strategy
63	Management Practice: Adopt a flat structure that promotes collaboration vs. Hierachy
64	Management practice: Building an entrepreneurial culture and strategy
65	Management practice: Cannot have business strategy without IT Strategy
66	Management practice: Constant business iteration and adjustment using IT
67	Management Practice: Cultivate innvovation culture
68	Management Practice: digital quality framework
69	Management practice: Executives to Champion Change Management
70	Management practice: Invest in performance measurement tools
71	Management Practice: Invest in digital capability that solves problems and create value
72	Management practice: mapping to a digital literacy and a digital maturity
73	Management Practices - Build inhouse IT capability and rely less on consultants
74	Management Practices- Integrate IT strategy into overall business strategy and planning
75	Management Practices -Integrate systems
76	Market Dynamics: Digital disruption in Education
77	Multinational organisation
78	New Service Created: Consulting
79	New ways of working with technology
80	Opportunity - Reposition brand and improve relevance
81	Opportunity : Social media strategy to raise awareness maximises network audience
82	Opportunity : Systems intergration and process automation
83	Opportunity: Adoption of corporate practises as a future practice
84	Opportunity: Aggregate social impact through new products and service
85	Opportunity: Automation of Business Processes
86	Opportunity: Build technology platforms customizable for specific contextual groups or settings
87	Opportunity: Content generation and management for business continuity
88	Opportunity: Develop long-term technology and product roadmap targeting multitude of stakeholders problems
89	Opportunity: Hackathons to stimulate IT innovation to solve social problems
90	Opportunity: Improve data collection & meaningful insights crucial to business relevance going forward
91	Opportunity: Improvement in demonstrating the return on investment to funders, donors and social investors
92	Opportunity: Leverage emerging technology create products and services
93	Opportunity: Maximise demographic dividend
94	Opportunity: Need advanced digital technology to facilitate digital transformation from traditional business models
95	Opportunity: New and Strategic partnerships & collaboration

No	List of Codes
96	Opportunity: Pivot from b2c to b2b type model
97	Opportunity: Pivot to alternative business to supplement revenue
98	Opportunity: Use IT subscription model where affordability is a challenge
99	Outcome: 24/7 Accessibility of Digital Platform
100	Outcome: Access to consistent real time data analytics, business intelligence and metrics
101	Outcome: Centralised Shared services
102	Outcome: Digital Transformation dispels investment in Brick and Motar infrastructure
103	Outcome: Improved Customer acquisition and Retention
104	Outcome: Improved effeciency and productivity
105	Outcome: IT assists in the granularity of data collection and reporting
106	Outcome: IT enables effortless geographical expansion
107	Outcome: IT enables more credibility and legitimacy of the organisation
108	Outcome: IT improve data integrity and reliabilty of data collected
109	Outcome: Pivot to on-line training
110	Outcome: Standardised, Integrated and Automated business processes
111	Outcome: Strategic decision making
112	Outcome: Transparency and visibilty in reporting improves stakeholder relationships
113	Outcome: Use reliable data to make strategic decisions
114	Products and Services: Training
115	Products: On line education platform
116	Role in organisation: Executive Level
117	Scalability : Scalable IT solutions to reach more stakeholders
118	SE Dilemma: Owing infrastructure & resources vs. Subscription based services
119	SE Typology: Business and Digital Orientation - Primary Business Model is Digital
120	Sentiment : IT positively contributes towards customer service excellence
121	Sentiment: Positive - Social Enterprises require IT/ Digital Capabilities to perform competitively in disruptive and volatile markets
122	Sentiment: Positive - Yes, IT and digital enablement has a positive contribution towards agility and positive performance in SEs
123	Sentiment: Positive - Yes, IT creates new products and services
124	Sentiment: Positive - Yes, to long term survival and sustainability through IT
125	Sentiment: Positive -Yes, IT positively contributes positively to the social mission
126	Social Enterprises operate in a knowledge economy
127	Small and emergent organisation
128	Social Impact Monitoring and Evaluation
129	Stakeholder Reach: Wider audience reach and growth in client base in difference geographical areas
130	The future business models of social enterprises
131	Type of Social Enterprise: For-Profit-Organisation
132	Type of Social Enterprise: Not-For-Profit Organisation
133	Well Defined Social Mission
134	Years in operation greater than 5 years
135	Years in operation less than 5 years

APPENDIX 7: IT ENABLEMENT CHALLENGES AND OPPORTUNITIES IN SOCIAL ENTERPRISES

Table 7

IT Enablement Challenges and Opportunities in Social Enterprises

Participant ID	Organisation ID	Challenges	Opportunities in IT and digital Enablement
Participant #1	Org#1	Being stuck in survival mode and less focus on growth. Lack of proactive mindset. NPOs appear to be order takers from donors. Face-to-face business. Low market penetration. STEM (Science, Technology, Engineering, and Maths) skills deficit. Unreliable power supply (load shedding)	Adoption of corporate practices in NPOs to run efficiently. Brand repositioning using IT and digital and stronger appeal to younger clients.
Participant #2	Org#2	Funding resource constraints Poor education in technology. Poor network connectivity infrastructure. Poor adoption of technology. Overtraining in skills that are not employable. Ineffective information management.	Social Media strategy to maximise access to the stakeholder network and exploit the audience. Automated business processes and integrated systems Advanced Business Analytics capabilities for performance monitoring and evaluation.
Participant #3	Org#3	Funding resource constraints Barrier to entry of new markets.	Investment in e-Learning Management Solution Strategic partnership to reduce barrier to entry into specific markets.
Participant #4	Org#4	Lack of innovation. Poor efficiencies. Heavy reliance on IT consultants.	Improvement in digital adoption rate.
Participant #5	Org#5	Poor network connectivity infrastructure.	Budget optimisation based on resource constraints – Buying vs. Renting service or products.
Participant #6	Org#6	Proper capitalisation for resource capacity.	Demographic Advantage - Growing reliance on young people to use technology Attraction and retention of young professional talent.

Participant ID	Organisation ID	Challenges	Opportunities in IT and digital Enablement
			Build technology platforms customisable for specific contextual groups or settings Need advanced digital technology strategies to facilitate digital transformation from traditional SE business models.
Participant #7	Org#7	Regulatory requirements constraining the optimal and effective exploitation of IT and digital capabilities. High cost of data and network connectivity. Unreliable power supply (load shedding).	Pivoting to online services.
Participant #8	Org#8	Lack of buy-in from rural stakeholders to adopt technology. Low digital literacy and digital training. Most technology hubs that support social enterprises are outsourced, therefore, limiting strategic IT decisions and planning. High cost of data. Restrictive legislative policy making that inhibits the effective leveraging of IT to solve social problems. Corruption and monopolies in the market that inhibits young entrepreneurs in IT and digital to rise and solve social problems.	Opportunity to build mobile applications Maximise demographic dividend by establishing policies the youth to access and leverage technology to solve social problems.
Participant #9	Org#9	Poor network connectivity infrastructure. High cost of data. Low digital literacy.	Embrace co-opetition through strategic partnerships. Integrated data platforms.
Participant #10	Org#10	Poor network connectivity infrastructure especially in rural areas. Hiring competing talent with large and well established organisations.	Promote a 'Mobile First' culture.

Participant ID	Organisation ID	Challenges	Opportunities in IT and digital Enablement
Participant #11	Org#11	Barrier to entry for people with disabilities Lack of readiness and culture mindset to receive services online – owing to change management and training challenges. Data accessibility and network connectivity limitation for the youth.	Improve information access through data-free websites for disadvantaged youth. Establish network connectivity hotspots in strategic locations for youth to access data for free.