**Gordon Institute
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The role of ICT in social enterprise value creation in South Africa

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Abstract

This research aimed to establish the types of and the way in which ICTs are used by social entrepreneurs in South Africa to achieve their social value proposition. Social entrepreneurs are seen to have an important role to play in helping address socio-economic problems, such as poverty alleviation and job creation. However, they face numerous challenges, notably a lack of resources. ICTs are seen as a tool that organisations can use to become more resource-efficient.

The research was conducted using qualitative research methodology, which can offer more descriptive data and assist with building an understanding of the topic. As no set definition for social entrepreneurship exists, there is a lack of data for quantitative analysis. This study found that social entrepreneurs in South Africa use a wide range of ICTs to manage human and financial resources, identify opportunities to grow and improve their organisations, comply with legal and regulatory requirements, and achieve their social value propositions. However, room exists for more intensive adoption of existing technologies by social enterprises, as well as implementing emerging ICTs such as artificial intelligence.

Keywords

Social entrepreneurship

Social Value Proposition

ICT

Declaration

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

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Chapter 1: Introduction to Research Problem

1.1   Introduction

A recent study by the World Bank on poverty and inequality in South Africa shows that poverty remains high for an upper middle-income country, and that inequality remains among the highest in the world (Sulla & Zikhali, 2018). Despite significant investments by the government since 1994 to address poverty and increase the social wage, through spending on education, health, social security grants, public transport and housing, among others, inequality has worsened since 1994 (Sulla & Zikhali, 2018). According to the International Monetary Fund (IMF), the highest 10% of the population receive 51.3% of total income, compared with the lowest 20% of the population earning a mere 2.5% (IMF, 2018).

Due to low economic growth in recent years, the country has not been able to generate sufficient jobs and poverty has worsened, with 55% of the country's population living below the national upper-bound poverty line of R922 per person per month in 2015 prices (Sulla & Zikhali, 2018). The IMF estimates that 5% of the population is undernourished, based on 2015 data (IMF, 2018). Also of concern is that growing government spending has led to a doubling of public debt over the past ten years, leaving limited room for fiscal policy to stimulate growth (IMF, 2018).

According to Sulla and Zikhali (2018), high unemployment is still one of the main challenges for South Africa, should the country want to reach its goal of eliminating poverty by 2030, as stated in the National Development Plan (NDP). The unemployment rate was 27.2% in the second quarter of 2018, significantly higher than the 6% targeted for 2030 in the NDP (Statistics South Africa, 2018; National Planning Commission, 2012). When discouraged job-seekers are included in the statistics, the unemployment rate in the fourth quarter of 2017 was 37.2% (Statistics South Africa, 2018).

The South African economy is also unlikely to grow at a rate higher than 2% in the medium term (IMF, 2018), which is significantly below the sustained annual growth of 5.4% required by the NDP to reach its unemployment and poverty targets by 2030 (National Planning Commission, 2012). The South African government does not have the capacity to fully address these challenges on its own, and business – both traditional for-profit organisations, as well as social enterprises – have a role to play (Littlewood &

Holt, 2015). Urban (2015, p. 271) argues that social entrepreneurship has an "unequivocal application" in South Africa, as traditional government initiatives cannot address "the entire social deficit".

In a broader context, governments, which face resources constraints, and traditional businesses, which are driven by a profit motive, often fail to implement sustainable change in areas where economic returns are low, even if social needs are high (Santos, 2009). Traditional political and economic solutions "are no longer good enough to guarantee a minimal quality of life to a rising number of people", thereby driving the need for social entrepreneurship (Frączkiewicz-Wronka & Wronka-Pośpiech, 2014, p. 33).

1.2 Research purpose

This research paper builds on the notion that social entrepreneurship is one tool to address societal challenges such as unemployment and poverty alleviation (Kostetska & Berezyak, 2014; Frączkiewicz-Wronka & Wronka-Pośpiech, 2014).

Various definitions exist for social entrepreneurship. Dees (1998) describes a social entrepreneur as an entrepreneur who "combines the passion of a social mission with an image of a business-like discipline, innovation and determination" (p. 1). Social entrepreneurship can include social purpose business ventures, such as non-profits; for-profit social ventures; and hybrid organisations that mix both not-for-profit and profit elements (Dees, 1998). Rajendhiran and Silambarasan (2012, p. 188) describe a social entrepreneur as someone who "identifies practical solutions to social problems by combining innovation, resourcefulness and opportunity".

Martin and Osberg (2007, p. 35) describe the following three components of social entrepreneurship: "(1) identifying a stable but inherently unjust equilibrium that causes the exclusion, marginalisation, or suffering of a segment of humanity that lacks the financial means or political clout to achieve any transformative benefit on its own; (2) identifying an opportunity in this unjust equilibrium, developing a social value proposition, and bringing to bear inspiration, creativity, direct action, courage, and fortitude, thereby challenging the stable state's hegemony, and (3) forging a new, stable equilibrium that releases trapped potential or alleviates the suffering of the targeted group, and through imitation and the creation of a stable ecosystem around the new equilibrium ensuring a better future for the targeted group and even society at large".

Santos (2009) argues for a much narrower definition of social entrepreneurship. He explains that "what distinguishes social entrepreneurship from commercial entrepreneurship is a predominant focus on value creation as opposed to a predominant focus on value appropriation" (p. 13). According to Santos (2009), neither governments nor for-profit business will systematically engage in areas with a high potential for value creation but little potential for value appropriation.

Neck, Brush and Allen (2009, p.15) propose four specific types of entrepreneurial ventures, plus a hybrid form (see Figure 1 below):
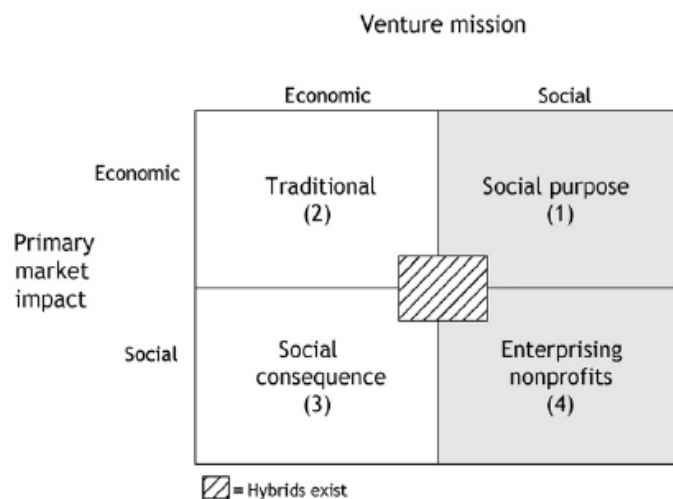
Figure 1: Venture typology (Source: Neck et al., 2009, p. 15)

Social purpose ventures (Figure 1, Quadrant 1) are for-profit ventures aimed at solving a specific social problem. The primary market impact is seen as economic.

Traditional ventures (Figure 1, Quadrant 2) are primarily focused on an economic mission and economic impact, with financial performance as its key metric.

Social consequence ventures (Figure 1, Quadrant 3) are profit-driven, but many of its activities have social outcomes. However, these social outcomes are not the reason for the firm's existence. Corporate social responsibility activities would fall into this quadrant.

Enterprising non-profits (Figure 1, Quadrant 4) earn an income through their activities and focus on growth and sustainability, but do not have a profit motive. (Neck et al., 2009, p15-16)

Hybrid ventures display a combination of the characteristics mentioned above. For the purposes of this study, the focus will be on social purpose ventures, enterprising non-profits and hybrid ventures.

1.3   Research problem

Social enterprises can have many positive impacts on society in addition to creating jobs. According to Kostetska and Berezyak (2014), these benefits include finding new ways to offer social services; allowing for the more efficient use of public resources; encouraging community members to get involved in voluntary work; and reducing the burden on government, particularly at a local level, to solve social problems (p. 573). There is growing interest in South Africa, in line with global trends, in social entrepreneurship as a mechanism to address "complex, 'wicked' sustainable development problems" (Littlewood & Holt, 2015, p. 526).

However, social enterprises face some distinctive challenges, one of which is the challenge to value social improvements (Dees, 1998). According to Dees and Anderson (2003), social benefits are "often intangible, hard to quantify, difficult to attribute to a specific organisation, best evaluated in the future, and open to dispute" (p. 7). This makes it difficult for social entrepreneurs to make optimal managerial decisions, produce evidence of social impact and to decide how much to invest in a social enterprise (Dees & Anderson, 2003).

Many economists argue that companies with a drive for profits will push businesses with a social purpose, but with economic inefficiencies out of the market (Dees & Anderson, 2003). Social ventures, therefore, must find innovative ways to remain competitive, without losing their social purpose (Neck et al., 2009).

The use of information and communication technologies (ICT) has a demonstrable positive impact on business productivity and competitiveness (Ghobakhloo, Sabouri, Hong & Zulkifli, 2011). Various definitions for ICT exist. Ghobakhloo et al. (2011) describe it as information systems, computer hardware and software, the internet and communication technologies. Malmö University in Sweden describes ICT as a "general term for a diverse set of technologies which enable users to create, assess, disseminate, store, manage, and communicate information in a digital format. ICT include computer hardware and software applications, encompassing: mobile phones, computers, network

hardware, internet, telecommunications systems and so on, as well as the various related services and applications" (Malmö University, 2011). Interlinked with this is social media, which is defined as a set of internet-based applications where people can participate, share their perspectives and experiences, and pool resources (Malmö University, 2011).

The effective use of ICT is a "powerful tool for empowering people and delivering change, by increasing the effectiveness of the efforts of staff, volunteers, other stakeholders, delivering better quality services and making better use of scarce resources through more efficient working methods" (Frączkiewicz-Wronka & Wronka-Pośpiech, 2014, p. 39). It also allows access to valuable information, business opportunities, educational programmes and mentorship opportunities (Warnecke, 2017).

Martin and Osberg (2015) identified technology as one way for social entrepreneurs to effect change. This can be achieved in three ways: (1) By replacing a key technology with a lower-cost option; (2) By creating a new enabling technology; and (3) By finding new applications for an existing enabling technology. Frączkiewicz-Wronka & Wronka-Pośpiech (2014) identified a number of benefits of the use of ICT in social enterprises, including improving access to resources, including financial, skills and communication resources; measuring performance; the creation of networks; creating and/or improving access to markets; and creating new access channels for beneficiaries.

1.4   Research objectives

The purpose of this exploratory research is to investigate the role of ICT in social enterprise value creation in South Africa. The need for this research is two-fold.

Phillips, Lee, James, Ghobadian and O'Regan (2015, p. 431) argue that there has been a considerable increase in the interest in social entrepreneurship in recent years, "because of the perceived weaknesses and failure of the dominant for-profit enterprise model". However, from an academic perspective, much of the existing literature focuses on the US and Europe, and there is a "need to bring in more disparate voices and knowledge to develop richer, more inclusive understandings in the field" (Littlewood & Holt, 2015, p. 527).

Various studies show that the environment matters in which a social enterprise operates, highlighting the need for more studies on social entrepreneurship outside the developed world (Littlewood & Holt, 2015; Rivera-Santos, Holt, Littlewood & Kolk, 2015; Karanda & Toledano, 2012). Studies on Africa can bring new insights to the literature on social entrepreneurship, particularly around challenges that are prevalent in the context of the continent, such as poverty (Rivera-Santos et al., 2015). Urban (2015) highlights that, given the role the socio-economic and cultural environment play in shaping African social enterprises, they may not only be different from the implicit view of social enterprises that dominate existing literature, but may also vary significantly across African contexts.

In a study on social entrepreneurship in South Africa, Karanda and Toledano (2012) find that local context plays a vital role in characterising the operations of social enterprises, highlighting the need for more localised research. " ... we have accepted that the social entrepreneurs, their missions, businesses and results are not simply "objects" that possess a fixed or static business idea for solving social problems, but their initiatives and motivations come from the interactions they maintain with other members of the community" (Karanda & Toledano, 2012, p. 209).

South Africa-focused research on social entrepreneurship has been limited, despite the growing academic interest in the topic (Littlewood & Holt, 2015). The research that has been done remains "quite nascent and fragmented", and has primarily focused on the broader environment for social entrepreneurs in South Africa (Littlewood & Holt, 2015, p. 526).

From a business perspective, ICTs can play an important role to improve the activities and financial performance of a social enterprise (Frączkiewicz-Wronka & Wronka-Pośpiech, 2014). The authors have identified the need for more research on the contribution of ICT to the success of social enterprises, given the impact an improved use of ICTs can have on the economic results of these organisations (Frączkiewicz-Wronka & Wronka-Pośpiech, 2014).

This research aims to explore the types of ICT used by social enterprises to achieve their value proposition and investigate how ICT creates social and economic value in social enterprises.

Chapter 2: Literature Review

2.1   Introduction

The main research thrusts identified in Chapter 1 were refined to identify the areas on which to focus the literature review. As discussed, the research paper built on the notion that social entrepreneurship is one tool to address societal challenges such as unemployment and poverty alleviation (Kostetska & Berezyak, 2014; Frączkiewicz-Wronka & Wronka-Pośpiech, 2014). Social entrepreneurship remained broadly defined, with no uniformly accepted definition in the academic literature (Dees, 1998; Rajendhiran & Silambarasan, 2012; Martin & Osberg, 2007; Santos, 2009). Mention was also made of the various types of ventures that social entrepreneurs can use to create value (Neck et al., 2009).

However, many challenges specific to social enterprises were highlighted, such as the difficulty in valuing social improvements (Dees, 1998; Dees & Anderson, 2003; Neck et al., 2009). The use of ICTs was highlighted as one tool with a demonstrable positive impact on business productivity and competitiveness, the ability to empower people and deliver change, and to provide access to opportunities (Ghabakhloo et al., 2011; Frączkiewicz-Wronka & Wronka-Pośpiech, 2014; Martin & Osberg (2015).

The purpose of this exploratory research is to investigate the role of ICT in social enterprise value creation in South Africa. This literature review is subdivided into the following focus areas:

- Social entrepreneurship
    - Defining social entrepreneurs
    - Types of social enterprises
    - Challenges facing social enterprises
- ICTs
    - Types of ICTs
    - Benefits and challenges of adopting ICTs
- Value creation in social enterprises

2.2   Social entrepreneurship

2.2.1   Defining social entrepreneurs

In his seminal work on the topic, Dees (1998) used Joseph Schumpeter's definition of entrepreneurs – people who move the economy forward by serving new markets or creating new ways of doing things – as the basis for his description of social entrepreneurs. For social entrepreneurs, the mission is to create social change, as opposed to traditional entrepreneurs who have wealth creation as their primary aim (Dees, 1998).

Dees (1998) described social entrepreneurs as using five ways to fulfil their role as change agents in the economy:

- By setting a mission to create and sustain social value;
- By recognising and continuously pursuing new opportunities that would serve that mission;
- By continually innovating, adapting and learning;
- By acting boldly despite limited resources; and
- By exhibiting a heightened sense of accountability (Dees, 1998; Dees, 2001).

The review of the literature brought other definitions too. Warner, Lieberman & Roussos (2016) described social entrepreneurship as a "pro-poor economic development strategy that promotes the common good" (p. 80). The authors argued that social entrepreneurship could provide a way out of poverty through the creative use of business strategy, technology innovation and a deep understanding of customer need, thereby providing an alternative to for example private charity and government aid. Social entrepreneurs were described as people who "look upon social problems and reimagine them as business opportunities" (Warner et al., 2016, p. 81).

In contrast to a traditional entrepreneur, which uses financial metrics to measure success, social entrepreneurs pursue both social and financial sustainability goals (Warner et al., 2016). Mair, Battilana and Cardenas (2012) described social entrepreneurs as people who provide goods or services to achieve social objectives to bring about social change.

2.2.2 Types of social ventures

In Chapter 1, four specific types of entrepreneurial ventures, plus a hybrid form, as identified by Neck et al. (2009), were discussed. This research focused on three of the five identified types, namely social purpose ventures, which are for-profit ventures aimed at solving a specific social problem, with the primary market impact seen as economic; enterprising non-profits, which are ventures that earn an income through their activities and focus on growth and sustainability, but which do not have a profit motive; and hybrid ventures, which have a profit and social purpose, and which measure their primary impact in economic and social terms (Neck et al., 2009).

While the typology above was based on the organisation's primary mission, other measures have also been developed to classify social entrepreneurial ventures. Ismail, Sohel and Ayuniza (2012) identified the technology social venture (TSV), which they defined as social ventures that use innovative technology-based solutions to solve social problems in a financially sustainable way. Mair et al. (2012), in a study of 200 social enterprise organisations around the world, classified organisations based on the four possible forms of capital that can be leveraged. These forms of capital were identified as social capital, economic capital, human capital and political capital.

Their four broad classifications identified the following areas for social entrepreneurial organisations, which have an impact on the way the enterprises are organised and managed:

- Cluster 1, leveraging political capital: Those enterprises addressing legal and rights issues, which require social entrepreneurs to build and leverage political capital to bring about social change.
- Cluster 2, leveraging human capital: Ventures that leverage educating activities, or human capital, to increase people's knowledge and skills to bring about change.
- Cluster 3, leveraging economic capital: Social enterprises that are focused on leveraging economic capital – often offering microloans or other material resources – to address economic issues such as poverty, poor working conditions and unemployment.
- Cluster 4, leveraging social capital: Where the enterprise leverage networks of relationships, or social capital, to mobilise power and resources. (Mair et al., 2012).

Mair et al. (2012) argued that it is essential to study the different organisational approaches adopted by social entrepreneurs to develop a richer understanding of the field and decision-making by social entrepreneurs.

The research also identified that the legal structure of a social entrepreneurial venture has an impact on the way the business is organised and managed, and how performance is measured (Dees & Anderson, 2003; Steinman, 2010; Claeyé, 2017). Dees & Anderson (2003) highlighted the advantages and disadvantages of registering as a for-profit and non-profit institution. Typically, a not-for-profit, or non-profit, structure imposes constraints on raising capital, and the earning and distributing of profit. On the other hand, they offer some advantages, such as access to philanthropic donations and volunteers. For-profit ventures have no limitations on the earning and distribution of profit and may open up capital markets. They may also be more successful in promoting efficiency and innovation, adapting to changing demand and attracting skilled employees (Dees & Anderson, 2003).

Austin, Stevenson and Wei-Skillern (2006) argued that the central driver for social entrepreneurship was "the social problem being addressed, and the particular organisational form a social enterprise takes should be a decision based on which format would most effectively mobilise the resources needed to address that problem" (p. 2).

South Africa has no clear and coherent legal framework in place for social entrepreneurs, meaning these enterprises are governed by numerous existing policies, regulations and initiatives. Due to regulatory uncertainty around funding, social impact investors may also be scared away from the sector in South Africa (Claeyé, 2017). A number of legal structures, with different legal and regulatory requirements, exist for social entrepreneurs, including for-profit and not-for-profit legal structures. According to Claeyé (2017), these broadly include:

- Not-for-profit ventures
  - They typically rely on donor funding, may generate income but cannot distribute profits
  - No private ownership
  - Legal structures include voluntary associations, trusts and non-profit companies

- For-profit ventures
    - Can have private ownership and distribute profit
    - Legal structures include companies, cooperatives and sole proprietorships

- Hybrid structures
    - A combination of the various models, where the for-profit leg of the venture generate income that is reinvested in the not-for-profit venture to fulfil social objectives
    - This adds to the administrative workload and cost of compliance (Claeyé, 2017)

In a recent study, Hanley et al. (2015, as quoted in Claeyé, 2017) found that South Africa's social entrepreneurship environment is primarily constituted by for-profit organisations, which represented 49% of organisations in the sample. Non-profit organisations accounted for 35% and hybrid organisations for 14%, with the remaining 2% unidentified (Hanley et al., 2015 as quoted in Claeyé, 2017).

Ultimately, the choice of legal form would depend on a variety of factors, including the size and complexity of the organisation, the demands placed by potential funders, the tax implications and financial requirements (Steinman, 2010).

Regardless of the legal structure chosen, Dees and Anderson (2003) provided clear guidelines for social entrepreneurs to run their enterprises. These include:
- Set a clear mission that is communicated effectively to prospective investors, employees and customers;
- Craft an integrated and compelling venture model;
- Measure performance and continuously test assumptions;
- Invest time and energy in the team;
- Anticipate resistance and develop a strategy for dealing with it;
- Develop a brand reputation for quality and performance; and
- Recognise the limits of what can be done by a for-profit venture, and use non-profit partners or affiliates to provide complementary services (Dees & Anderson, 2003).

2.2.3 Challenges faced by social entrepreneurs

To be successful, social entrepreneurs have to use scarce resources efficiently and leverage limited resources "by drawing in partners and collaborating with others" (Dees, 1998, p. 5). Thornton, Lohrke and Gonas (2015) cautioned that social entrepreneurs need to attract inputs – capital and labour – at below market rates in order to be sustainable.

A study of 100 social entrepreneurs in the Philippines identified many challenges faced by social entrepreneurs in that country's Salem region (Rajendhiran & Silambarasan, 2012). These challenges were: getting funding; earning a profit; getting support from family and friends; getting support from business people; attracting skilled employees; sustaining employees; promoting awareness; getting experts' assistance; maintaining product quality; competition from others; developing business solutions; acquiring technologies; maximizing social returns; and improving the quality of life (Rajendhiran & Silambarasan, 2012, p.189).

Wronka (2013) highlights the increasing need for social enterprises to be innovative to ensure their efficiency and effectiveness. Organisations should identify their critical success factors, and find ways to measure their impact (Wronka, 2013). Using data from 300 respondents representing different social ventures in the Silesia province in Poland, Wronka (2013) identified ten key critical success factors for social enterprises. These included strong leadership; motivation and commitment of employed people; an enabling legal/regulatory environment; attractiveness and clarity of innovative concept; management expertise; essential personal qualities for front-line service delivery; effective collaboration with public sector; social capital; local community involvement; and keeping and distributing accurate financial records (Wronka, 2013, p. 600).

2.3 Information and communication technologies (ICTs)

2.3.1 Defining ICTs

One way to address these challenges is through the effective use of technology, notably ICT. ICT is defined as the "physical infrastructure and applications like mobile phones, landlines, computers, and the internet", and can provide access to important intangible resources such as knowledge and access to networks (Warnecke, 2017, p. 306).

The definition used by Osorio-Gallego, Londoño-Metaute and López-Zapata (2016) focused on internet-based ICTs and included the hardware, software and networks used by organisations to access and use the internet. ICTs were also defined as the technologies used by organisations and people to process their information and for communication purposes (Zhang, Aikman & Sun, 2008, as quoted in Osorio-Gallego et al., 2016).

Malmö University in Sweden described ICT as a "general term for a diverse set of technologies which enable users to create, assess, disseminate, store, manage, and communicate information in a digital format. ICT include computer hardware and software applications, encompassing: mobile phones, computers, network hardware, internet, telecommunications systems and so on, as well as the various related services and applications" (Malmö University, 2011).

Gopalkrishnan (2013) described technology as a "crucial resource" for social entrepreneurs as it can "transform an idea into an operational endeavour" (p. 66). In addition to the more "traditional" aspects of ICT – computers, mobile phones, the internet – Gopalkrishnan (2013) described a number of other technology products and services that are available and can transform social enterprises. These included:

- Cloud computing
  - o Instead of investing in its data processing, storage and communications infrastructure, social entrepreneurs can access cloud computing services – effectively shared infrastructure accessible through the internet – at lower costs. The main risk is potential security breaches.
- Infrastructure as a Service (IaaS)
  - o Consumers can procure capacity and network services to create their own unique system.
- Platform as a Service (PaaS)
  - o This is a form of cloud computing services that provide a platform for customers to run applications.
- Software as a Service (SaaS)
  - o Applications, for example financial reporting software, are leased per use, or at monthly or annual subscription rates.
- Crowdsourcing

- These platforms can be used to get information, ideas and thoughts from a group of people. Similarly, the "crowd" can be used to raise funding for specific projects.
- Micro-work organisations
  - This technology can be used to get people to contribute, volunteer or work for the organisation.

The Mamö University (2011) also highlighted the importance of social media, which is interlinked with ICTs and is defined as a set of internet-based applications where people can participate, share their perspectives and experiences, and pool resources.

Leonardi, Huysman & Steinfield (2013) found social media have been used in primarily two ways by organisations: for communication with external parties, such as customers, vendors and the broader public; and for internal communication and social interaction among staff and management within the organisation. Used as an external communications tool, social media can be a powerful way to assist with branding, marketing and customer relationship management. Used internally, social media can be applied to interact with new employees, to share and manage knowledge, and to assist employees in building relationships and social capital (Leonardi et al., 2013).

2.3.2 Benefits and challenges of adopting ICTs

Warnecke (2017, p. 306) highlighted that technology plays an essential role in economic development processes, "shaping the flow of goods, services, capital, and people, as well as the way resources, are combined to 'do' and to 'make'". This has an impact on production processes as well as the viability of various enterprises and industries (Warnecke, 2017).

Frączkiewicz-Wronka and Wronka-Pośpiech (2014) provided numerous examples of how ICTs can be used by social enterprises to overcome some of their challenges and achieve their goals. One of the key, ongoing challenges that most social enterprises face, is accessing new resources, including financial support and human resources, often on a voluntary basis (Frączkiewicz-Wronka & Wronka-Pośpiech, 2014). Technology has enabled many innovations in this regard, including the emergence of crowdfunding platforms, which gather donations from the general public to fund specific ventures, and

e-volunteering platforms, which link social enterprises with free mentoring, research and communication services (Frączkiewicz-Wronka & Wronka-Pośpiech, 2014).

Urban and George (2018) highlighted that measuring the extent of social and economic value creation remained a challenge for for-profit social entrepreneurs and their investors. Thornton et al. (2015) said they have "considerable difficulty" (p. 165) demonstrating their social value to stakeholders. Similar to other enterprises, these social entrepreneurs pursued growth through increased revenue, reducing costs and achieving economies of scale. While the financial targets may be easily measurable, the broader social impact was harder to measure (Dees, 1998; Urban & George, 2015). Challenges included a lack of publicly available data for comparison purposes, especially in African countries, and data collection abilities in the enterprise (Urban & George, 2018). However, to access resources in an increasingly competitive environment, build credibility, improve performance and prove sustainability, both social and economic value should be measured (Urban & George, 2018).

Technology can also be used by social entrepreneurs to lower organisational costs, improve efficiency and to grow (Gopalkrishnan, 2013), to make them more effective, scalable and sustainable, and to help promote transparency (Frączkiewicz-Wronka & Wronka-Pośpiech, 2014).

However, numerous challenges have been identified that limit the adoption of ICTs by social enterprises. Rahman and Smith (2014) identified cost, the limited awareness of open-source software, limited grant funding for technological investments, and a lack of access to reliable, timely data to improve decision-making as some of these hurdles.

Trainor, Andzulis, Rapp and Angihotri (2013) found in their study of 308 organisations across the USA that organisations cannot rely on technology alone to gain a competitive advantage. The study's main focus was on the use of social media technology to manage relationships with customers. It found that investment in these technologies could help to meet customer demands better, and could provide firms with significant customer relationship benefits. However, the authors found that these technologies must be used as a tool to develop further management capabilities and provide information that should be applied in order to exploit the potential benefits brought by the technologies (Trainor et al., 2013).

With limited academic literature on the use of ICTs in social enterprises specifically, the review was broadened to look at ICT adoption in a broader category of organisations. A study of ICT adoption in 474 small- and medium-sized enterprises (SMEs) in Colombia analysed ten factors that drive ICT adoption, using Rogers' (1995) diffusion of innovation (DOI) model to explain technological adoption in organisations as its base (Osorio-Gallego et al., 2016). According to Rogers' (1995) model, users were influenced by five main factors when deciding to adopt new technology:

- Relative advantage – the degree to which the technology was perceived as being an improvement on its predecessor;
- Compatibility – the degree to which the technology was consistent with existing values, past experiences and needs;
- Complexity – how difficult it was to understand and use new technology;
- Trialability – to what extent the new technology could be experimented with and tested; and
- Observability – how easy it was to see the results of the new technology (Rogers, 1995 as quoted in Osorio-Gallego et al., 2016, p 673).

Osorio-Gallego et al. (2016) used the DOI model as its base to statistically test a new model for ICT adoption that was based on ten factors: new business opportunities, effective client communication, business cost reduction, government incentives, ICT suitability for the business, ICT security and the cost-benefit balance of ICT adoption.

The authors found that an increase in new business opportunities is a crucial driver of ICT adoption in Colombian SMEs. The key factors that hampered ICT adoption were the lack of reliability on ICT security, as well as concerns that investing in ICTs would not yield the expected benefits (Osorio-Gallego et al, 2016).

Benefits of ICT adoption in SMEs included reaching new markets, improving business processes, cutting costs, building business knowledge, accessing information and market knowledge, attracting investors and creating new products and services (Osorio-Gallego et al., 2016, p 676).

With rising internet penetration rates and declining costs of broadband technology globally, SMEs can use ICTs to reach a larger potential domestic and global market (Osorio-Gallego, 2016). While limited research has focused on ICTs in the social

enterprise context, increased ICT adoption should similarly be able to allow for access to a larger pool of potential resources, such as donors and volunteers.

A study of ICT investment in value-added growth in the Swedish non-farm business sector by Edquist and Henrekson (2017) found a significant positive relationship between ICT investment and productivity and value-add in businesses. When ICT investment was divided into hardware and software investments, only software was significantly associated with value-add. An explanation offered for this is that all industries invest in hardware, "but only the ones that successfully invest in and implement software enjoy positive effects from ICT" (Edquist & Henrekson, 2017, p. 18).

In a fast-changing global environment, enterprises had to continually adapt its strategies in order to succeed. Barba-Sánchez, Calderón-Milán and Atienza-Sahuquillo (2018), in a study of 871 SMEs in Spain, argued that ICTs can be a source of competitive advantage for organisations, allowing enterprises to differentiate their products or services, lower costs, facilitate training, enable cooperation with external parties, adopt new and improved organisational practices, help coordinate and manage operations, improve decision-making, and improve internal and external communications.

Barba-Sánchez et al. (2018) found a significant positive relationship between the intensity of ICT use and corporate performance generally, as well as on specific measures such as the differentiation of products and services; lowering costs, identifying new business opportunities, and improving productivity and income. This was proven to be especially statistically significant in very competitive environments. To achieve this, management involvement in ICT adoption was required, and staff should be trained to use the technologies, as well as understand its impact on personal productivity and the performance of the organisation (Barba-Sánchez et al., 2018). The authors warned, however, that the rapid and continuous evolution of technology poses a challenge to organisations (Barba-Sánchez et al., 2018).

ICTs could also play a role in the creation of networks, creating access to markets, and creating new access channels to beneficiaries (Frączkiewicz-Wronka & Wronka-Pośpiech, 2014). However, the authors cautioned that technology should not be seen as offering a solution to every problem, but that it instead was a set of tools that provided new possibilities (Frączkiewicz-Wronka & Wronka-Pośpiech, 2014).

2.4 Value creation in social enterprises

Dees (1998) identified another critical challenge for the social entrepreneur – the difficulty of measuring social value creation. "How much social value is created by reducing pollution in a given stream, by saving the spotted owl, or by providing companionship to the elderly? The calculations are not only hard, but also contentious. Even when improvements can be measured, it is often difficult to attribute them to a specific intervention" (Dees, 1998, p. 4).

Neck et al. (2009) also highlighted the need for social enterprises to measure their performance beyond financial profit. Social ventures "need to identify their own non-financial metrics of success based on mission, industry and ideal impact" (Neck et al., 2009, p. 18). For the social enterprise to be sustainable, the measured metrics also need to be positively correlated with traditional financial measures (Neck et al., 2009). Kickul and Lyons (2015) also highlighted the increased pressure social enterprises are facing to measure and monetise social impact.

ICTs can also play an essential role in measuring and reporting on performance (Frączkiewicz-Wronka & Wronka-Pośpiech, 2014). To build trust, transparency and honesty about how social enterprises invest funds are required (Frączkiewicz-Wronka & Wronka-Pośpiech, 2014, p. 36). ICTs offer an economical and effective tool for "offering credible information to various stakeholders such as beneficiaries, clients, suppliers, employees, donors, and society in general" (Frączkiewicz-Wronka & Wronka-Pośpiech, 2014, p. 36).

Various models have been applied to social entrepreneurial ventures to explain and improve business processes to build competitiveness and create value. Dees and Anderson (2003, p. 3), for example, used Michael Porter's (1985) value chain concept as a tool to analyse the potential sources of competitive advantage for a for-profit social enterprise. The value chain concept, as illustrated in Figure 2, focused on procurement, employment, product or service, production, and marketing to target customers as the key activities through which businesses could create value (Dees & Anderson, 2003). Using this simplified model could also help identify the activities through which an enterprise could create, and measure, social value (Dees & Anderson, 2003).

Procuring Supplies → Employing Workers → Designing the Product/Service → Producing the Product/Service → Marketing to Target Customers
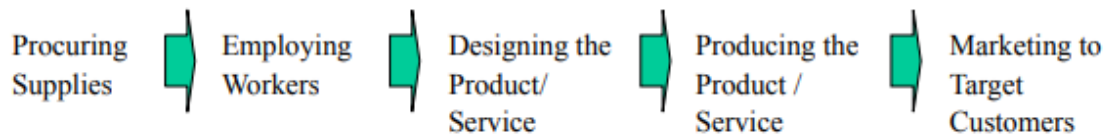
Figure 2: The simplified social value chain (Source: Dees & Anderson, 2003)

The adapted Porter value chain model above could be used to demonstrate how social value could be created through specific business activities. Procurement spending could be used to serve social purposes, for example through buying from disadvantaged suppliers. The social enterprise's hiring policy could be written to only employ disadvantaged individuals or rural women. The business's product or service could be designed in a way that was, for example, more environmentally sustainable. The product or service could be manufactured or delivered in more sustainably; and lastly, a business decision could be made to target a specific disadvantaged community with the product or service. One example was opting to provide business assistance and microloans as start-up capital for business or agricultural ventures in poor, rural communities (Dees & Anderson, 2003).

Littlewood and Holt (2015) adapted the highly cited work of Gartner (1985), which described a framework for new venture creation, to investigate the influence of environment on social entrepreneurship in South Africa. Gartner (1985, as quoted in Littlewood & Holt, 2015) identified four interrelated elements of importance in new venture creation: "the individual(s) who start the venture; the organisation they create; the processes underpinning the new venture's foundation and development; and the surrounding environment" (p. 528). Littlewood and Holt (2015) adopted Gartner's model to focus on three of his identified relationships as illustrated in Figure 3: between the environment and the process of social entrepreneurship; between the environment and the social enterprise; and between the environment and the social entrepreneur (p. 528).
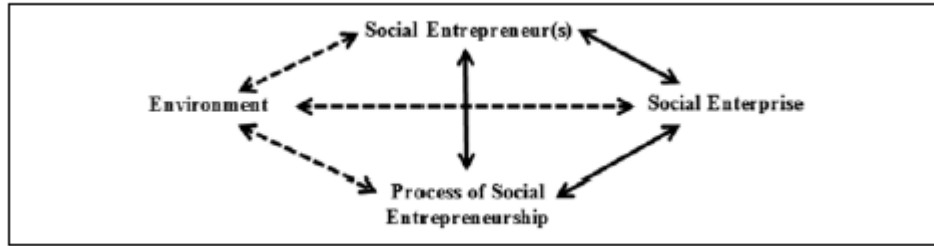
Figure 3: Gartner's framework adapted by Littlewood and Holt (2015)

As highlighted in Chapter 1, various studies have shown that the environment matters in which a social enterprise operates (Littlewood & Holt, 2015; Rivera-Santos et al., 2015; Karanda & Toledano, 2012; Urban, 2015). Littlewood and Holt (2015) for example highlighted the impact of specific legislation around broad-based black economic empowerment (B-BBEE) on social entrepreneurs in South Africa. While B-BBEE created an additional regulatory burden on organisations, it also offered significant opportunities for social entrepreneurs, as it forced businesses and corporates to spend a percentage of resources on corporate social responsibility and enterprise development functions (Littlewood & Holt, 2015).

Using data from the 2009 Global Entrepreneurship Monitor study, Puumalainen, Sjögrén, Syrjä and Barraket (2015) found that institutional and cultural contexts have an impact on social entrepreneurship. According to Puumalainen et al. (2015), social entrepreneurship opportunities were currently more likely to be discovered and exploited in developed countries, where "individuals seek ways to satisfy higher-order needs through the social mission" (p. 284). Entrepreneurial activity in less developed countries was driven more by satisfying basic individual needs, such as generating an income, even though the demand for social entrepreneurship may be higher in these countries (Puumalainen et al., 2015). Higher levels of economic and social development were found to drive higher levels of social entrepreneurial activity, while social entrepreneurs were also likely to be more prevalent in societies where there was a low power distance, in other words where people strived to "equalize the distribution of power and demand justification for inequalities of power" (Puumalainen et al., 2015, p. 284).

Phillips et al. (2015) highlighted that the success of social entrepreneurs and their innovations were a result of the network in which the entrepreneur operates. These networks could include partnerships with professional bodies, commercial organisations, research centres and government agencies (Phillips et al., 2015).

Building on the analytical framework by Sahlman (1996), which captured four key elements that were critical components for commercial entrepreneurship, Austin et al. (2006) developed a framework that can be used to develop a social-value proposition. The four key elements identified by Sahlman (1996) in a commercial entrepreneurship model, as quoted by Austin et al. (2006), were the people, the context, the deal, and the opportunity (PCDO), as shown in Figure 4:

- People were defined as those "who actively participate in the venture or who bring resources to the venture" (Austin et al., 2006, p. 5). Thorgren and Omorede (2015) highlighted to what extent the success of the social enterprise depended on the leader, finding that building trust and close relationships with stakeholders were essential to achieving the organisation's intended mission.
- Context was defined as "those elements outside the control of the entrepreneur that will influence success or failure", and included factors such as the macro-economy, tax and regulatory framework, and technological advances (Austin et al., 2006, p. 5).
- Deal referred to "who in a venture gives what, who gets what, and when those deliveries and receipts will take place" (Austin et al., 2006, p. 5).
- Opportunity was defined as "any activity requiring the investment of scarce resources in hopes of a future return (Sahlman, 1996, p. 140 as quoted in Austin et al., 2006, p. 5).
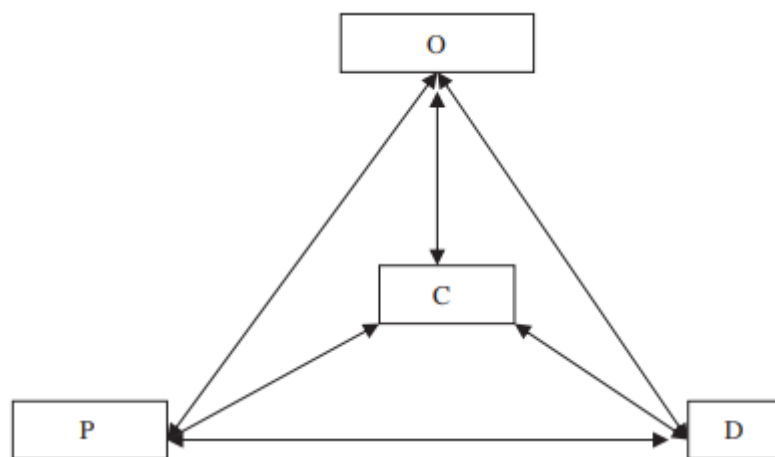
Figure 4: PCDO Framework (Source: Sahlman, 1996)

The adapted framework by Austin et al. (2006), as illustrated in Figure 5 below, would be relied upon as the theoretical framework for this research.
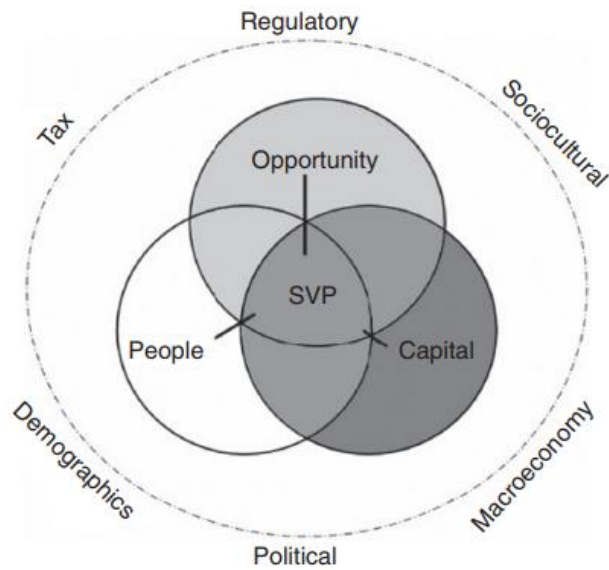
Figure 5: Social entrepreneurship framework (Source: Austin et al., 2006)

The model highlighted the importance of placing the social value proposition (SVP) at the centre of the enterprise's activities, as the social entrepreneur could easily get distracted from its core mission over time as he/she gets caught up in organisational processes, such as the mobilisation of resources (Austin et al., 2006). It was also vital to achieve alignment between the organisation's internal processes and the external environment (Austin et al., 2006). Their research found that there was a distinct difference between social and commercial entrepreneurs in how economic and human resources were mobilised, justifying the distinction between these two crucial resources in the framework (Austin et al., 2006).

The use of technology made businesses more effective, and in most industries, more jobs were created than destroyed through the use of technology (Chang & Hong, 2013). Social entrepreneurs have the opportunity to use technology to lower organisational costs, improve efficiency and to grow (Gopalkrishnan, 2013).

2.5   Conclusion

Various studies have demonstrated the critical role that social entrepreneurs play in creating social value and improving societal outcomes (Dees, 1998; Urban, 2018). Wronka (2013) argued that social entrepreneurship had a particularly vital role to play in transition economies that were characterised by low GDP per capita and high unemployment. As demonstrated in Chapter 1, South Africa would fall firmly in this category.

Numerous studies highlighted the specific challenges faced by social entrepreneurs (Dees, 1998; Dees & Anderson, 2003) and the role ICTs could play to address and overcome some of these hurdles (Frączkiewicz-Wronka & Wronka-Pośpiech, 2014; Osorio-Gallego et al., 2016). However, limited research on the use of ICTs globally, and none in South Africa, by social entrepreneurs to create value could be found.

In addition, various studies highlighted that the current knowledge of social enterprises in South Africa, and Africa more broadly, remain very limited (Claeyé, 2017; Littlewood & Holt, 2015). Various studies highlighted the important role that local context played in characterising the operations of social enterprises (Karanda & Toledano, 2012), with Puumalainen et al. (2015) finding in their study of Global Entrepreneurship Monitor data of 49 countries that culture, socio-economic development and governance institutions have an impact on social entrepreneurship in different countries. As one size doesn't fit all, more country-specific research was required to identify specific challenges that may be faced by social ventures in pursuit of their missions.

In order to address some of the shortcomings identified in the current literature, this study will use the model by Austin et al. (2006) as the basis for questions on the role of ICT in social enterprise value creation in South Africa, with a specific focus on the use of ICT in each of the key factors at play in the creation of a social value proposition.

Chapter 3: Research questions

The purpose of this exploratory research is to investigate the role of ICT in social enterprise value creation in South Africa. Based on the social entrepreneurship framework in Figure 5 (Austin et al., 2006), four key elements need to be considered when pursuing the social value proposition of a social enterprise. The research aims to explore what types of ICT are used in each of these elements and the role ICT plays in creating value. The research questions that this study seeks to answer are shown below:

Research question 1: What types of ICT are used in social enterprises?

    1.1 What types of ICT are used to exploit opportunities?

    1.2 What types of ICT are used to manage people resources?

    1.3 What types of ICT are used to access capital and manage finances?

    1.4 What types of ICT are used to manage context?

    1.5 What types of ICT are used to achieve the social value proposition?

Research question 2: How are ICTs used to create social and economic value in social enterprises?

    2.1 How are ICTs used to exploit opportunities?

    2.2 How are ICTs used to manage people resources?

    2.3 How are ICTs used to manage capital and financial resources?

    2.4 How are ICTs used to manage the context?

    2.5 How are ICTs used to achieve the social value proposition?

Chapter 4: Research methodology

4.1 Research design

Literature and research on social entrepreneurship in South Africa remain relatively sparse (Littlewood & Holt, 2015). The purpose of this study is to explore the role that technology (specifically ICT) plays in the value creation of social enterprises in South Africa.

Saunders and Lewis (2012) defined exploratory research as "research that aims to seek new insights, ask new questions and to assess topics in a new light" (p. 110). The research for this study is therefore exploratory. Exploratory research allows for flexibility as it starts with a broad focus and then narrows down as the study progresses (Saunders, Lewis & Thornhill, 2009). Exploratory research could provide results that need to be taken further with detailed studies in later research to provide more reliable answers (Saunders & Lewis, 2012).

Exploratory research starts with a wide scope and narrows down and become more focused as the research progresses. An interpretive research design will be used as the aim is to establish common themes from the data collected in the interviews and to find some meaning in it (Saunders & Lewis, 2012).

The research will follow a mono method by conducting semi-structured interviews and applying qualitative analysis procedures to the data (Saunders et al., 2009). Theory will be developed from analysing the data that was collected from the interviews; therefore an inductive approach will be used (Saunders & Lewis, 2012). A case study strategy will be followed as the research will aim to investigate the role that ICT plays in social enterprise business models to create social and economic value (Saunders & Lewis, 2012).

Southern and Tilley (2000) stress the complexity of the relationship between small firms and ICT usage and that quantitative measures will not be sufficient to understand the relationship. The same applies to the exploration of the role of ICT in social enterprises, and therefore a qualitative research methodology is best suited for this study.

As per Saunders et al. (2009), qualitative research is used to understand the reason why things are done in a certain way and allows the researcher to probe deeper into the answers of the interviewee. Creswell and Poth (2016, p. 96) explain that qualitative

research is used when an issue needs to be explored, and a complex and detailed understanding of the matter is required. The necessary depth of understanding can only be accomplished when the researcher talks directly to the person being studied, hence the choice by the researcher to conduct face-to-face interviews (Creswell & Poth, 2016).

Cross-sectional research will be used due to time constraints to complete the study. This means that data will be collected at a specific point in time as opposed to gathering data over a period (Saunders & Lewis, 2012).

The approach will be to have semi-structured interviews with active social entrepreneurs to investigate if common themes or new insights within the context of the research scope emerge. Due to limited time to conduct the research, only social enterprises in Gauteng will be interviewed. The types of enterprises that fall within the scope of the research are all social purpose ventures, enterprising non-profits and hybrid ventures (see Figure 1) that make use of ICT and have been operational for more than a year. The minimum operational time period is needed so that the social entrepreneur can give insights and experience on what the role of ICT is in the social enterprise's value creation.

4.2   Population

Saunders and Lewis (2012) defined a population as a "complete set of group members" (p. 132). The population that are being investigated for the purposes of this study are all registered social enterprises that make use of ICT. These social enterprises can include both social purpose ventures, enterprising non-profits and hybrid ventures as defined in Figure 1.

Due to the multiple definitions of social entrepreneurship, as discussed in the literature review, as well as the fact that not all social entrepreneurs identify themselves as such, it is not easy to accurately define South Africa's social entrepreneurship population. A Global Entrepreneurship Monitor (GEM) special report on social entrepreneurship (Terjesen, Lepoutre, Justo & Bosma, 2009) shows that South Africa's social entrepreneurship activity is 1.8%, which is also the average for all efficiency-driven economies that were part of the sample. This is measured as the percentage of the working-age individuals in the economy that either has an operational social enterprise or are in the process of starting one (Terjesen et al., 2009).

4.3   Unit of analysis

Grünbaum (2007) describes the unit of analysis as the individual, group or organisation that the research is focusing on (p. 84). In this case, the unit of analysis is the social enterprise. The researcher will limit the sample to social enterprises in Gauteng due to the limited time available to complete the research as well as the researcher's preference of having face-to-face interviews.

The types of enterprises that fall within the scope of the study are social purpose ventures, enterprising non-profits and hybrid ventures as defined by Neck at al. (2009) and illustrated in Figure 1. The enterprise needs to be operational for more than a year and needs to make use of ICT in at least one of the five areas described in Austin et al.'s (2006) theoretical framework (Figure 5). The reason for the minimum operational time requirement is so that the social entrepreneur can have some experience of and insights into the role that ICT plays in the value creation of the enterprise.

4.4   Sampling

A sample is "the selection of specific data sources from which data are collected to address the research objectives" (Gentles, Charles, Ploeg & McKibbon, 2015, p. 1775). Since social entrepreneurship has many different definitions and there is no list of all businesses that identify as social enterprises in South Africa, it is not possible to determine the entire population and therefore there is no sampling frame. In these cases, non-probability sampling techniques can be used (Saunders & Lewis, 2012).

Convenience and purposive sampling will be used to select entrepreneurs to interview. Convenience sampling is used when the researcher interviews those individuals that are easiest to access (Saunders et al., 2009). The researcher will focus on social entrepreneurs in Gauteng due to limited time to complete the research and the need for face-to-face interviews.

Purposive sampling is used when the researcher uses self-judgement to select sample members based on specific criteria to meet the research objectives (Saunders & Lewis, 2012). In this case, the researcher will focus on social purpose ventures, enterprising non-profits and hybrid ventures that have been operational for more than a year and

makes use of ICT in at least one of the key areas described in the theoretical framework in Figure 5 (Austin et al., 2006).

Snowball sampling will also be allowed which refers to cases when respondents refer other social entrepreneurs that meet the necessary criteria to be part of the study, but were not part of the initial sample (Saunders & Lewis, 2012).

The target number of interviews is 10, depending on time constraints as well as whether or not theoretical saturation is reached. According to Dworkin (2012, p. 1319), saturation is defined as "the point at which the data collection process no longer offers any new or relevant data".

Initially, the researcher intended to engage with institutions that have information of social entrepreneurs in South Africa, for example the GEM, Ashoka and the Network of Social Entrepreneurs at the Gordon Institute of Business Science (GIBS). Feedback from GIBS was that the institution is not allowed to share the required information as it is protected by the Protection of Private Information Act (POPIA) of South Africa. GIBS gave the researcher permission to address the social entrepreneurship class to explain what the research is about and ask for volunteers to participate in the interviews.

In 2016 there was a book published called "The Disruptors: Social Entrepreneurs Reinventing Business and Society" (Modise, 2016). The book tells the stories of some of the social entrepreneurs in South Africa. The researcher attempted to make contact with some of these social entrepreneurs to ask if they would be willing to participate in a one-on-one interview.

Snowball sampling was used by asking any social entrepreneur being interviewed for references to other social entrepreneurs in their network that meet the necessary criteria for the research.

4.5   Data collection method

Qualitative research was conducted by making use of semi-structured one-on-one interviews. Semi-structured interviews are used when the researcher has a list of themes and questions to discuss that are not necessarily the same for each interview (Saunders et al., 2009). The themes were based on Austin et al.'s (2006) theoretical framework in Figure 5.

Semi-structured interviews allow the flexibility that is needed for the specific research since the social entrepreneurs that were interviewed were not operating in the same industry, had unique social missions, were subjected to different regulations and policies, have different sized enterprises and make use of ICT differently. Appendix A contains the details of the interview schedule. All interviews were digitally recorded and handwritten notes were taken.

4.6   Data gathering process

Saunders et al. (2009) highlight the importance of proper preparation before engaging in one-on-one interviews. The researcher needed to be knowledgeable on the topic and relevant information was supplied to the interviewee before the interview.

The interview schedule in Appendix A served as a guide for the researcher on how to conduct the interview. Semi-structured interviews were done and it was digitally recorded and transcribed afterwards by the researcher. Handwritten notes were taken during the interview in case the technology that was used to record the interview malfunctioned. Interviews were done face-to-face and were conducted by the researcher herself.

With the consent of the respondent, each interview was digitally recorded and transcribed by the researcher afterwards.

The interviews started with the researcher reading through the consent form (Appendix B) and getting permission from the interviewee to digitally record the interview. Once consent was given, the interview started with an introduction and description of the research. This was followed by a background question as described in Appendix A before the main questions were discussed. Appendix A shows the main questions that are based on the theoretical framework in Figure 5 as well as probing questions in case the participant gave short answers that would not result in usable data. The duration of the interview was limited to one hour.

4.7   Analysis approach

Saunders et al. (2009, p.534) divides the analysis process into three parts: data reduction, data display and drawing conclusions. During the reduction phase, the goal is

to condense the information through coding and categorising it. A summary of the data can then be displayed in some visual format (e.g. tables or networks). The data displays then help to identify relationships and patterns or themes in the data that conclusions can be drawn from.

Creswell and Poth (2016) describe the data analysis process as a "data analysis spiral" (p. 330). Figure 6 is a visual illustration of the spiral. The researcher starts with data from the digital recordings or handwritten notes which is converted to data on a database or spreadsheet. Memos or short phrases are used to identify key concepts from the data. Codes or shorthand labels are assigned to the memos and combined into five or six themes that are used to write a narrative in the end (Creswell & Poth, 2016, p. 338).
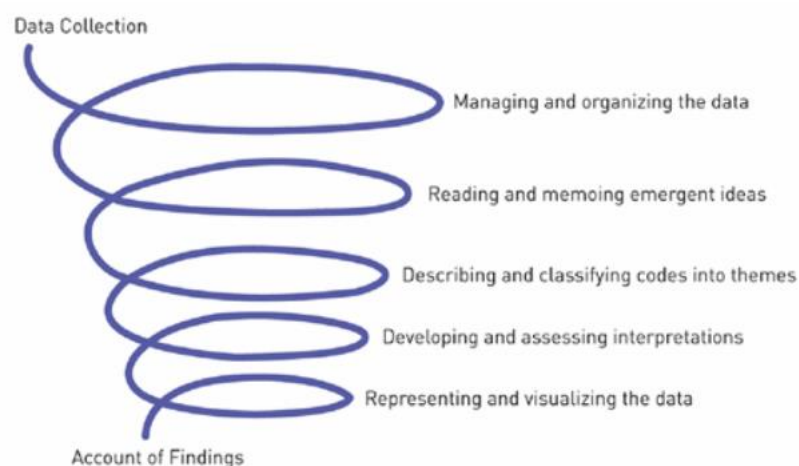
Figure 6: The data analysis spiral (Source: Creswell and Posh, 2016, p. 332)

The coding process is a crucial step in qualitative research and helps the researcher to make sense of the data collected during the interview (Creswell and Posh, 2016). During this process, some of the codes might be discarded if it is found to not be relevant or valuable in the context of the research. Creswell and Posh (2016) recommend less than 30 code categories which are then combined into five to six themes. Coding is a form of reduction. It is necessary to reduce the data in order to simplify it and find the more significant meaning in it in the interpretation phase of analysis.

In qualitative research, the interpretation phase is achieved through the organisation of themes and from there understanding a broader meaning of the data or "lessons learned" (Creswell & Posh, 2016, p. 345). Interpretation can be based on hunches, insights or

intuition and requires both creative and analytical skills (Creswell & Posh, 2016). The researcher needs to link the interpretation of the data to existing literature.

The last step is to represent the findings in some visual form (text, table or figure) (Creswell & Posh, 2016).

4.8   Limitations

Due to limited time to complete the research project, only a limited number of social entrepreneurs were interviewed. This could mean that not enough data were collected to reach data saturation. Given the small sample size, the findings might have low generalisability especially since social entrepreneurship is very diverse regarding the types of enterprises, the sectors they operate in, the type and size of the enterprise, etc.

The sample was geographically limited to Gauteng. Gauteng is the economic hub of South Africa, and therefore the findings might not apply to other geographical areas in South Africa. The research was done in an urban environment, and further research should be done to determine if rural areas result in the same conclusions.

There are many different definitions of social entrepreneurship (Dees, 1998; Dees & Anderson, 2003; Neck et al., 2009). This makes it difficult to identify the social entrepreneur population in South Africa clearly, and the lack of a comprehensive database of all social entrepreneurs in South Africa makes selecting a representative sample difficult.

Chapter 5: Results

5.1   Introduction

Chapter 5 presents the results of the research that was conducted using the methodology described in Chapter 4. A qualitative research methodology was followed for this exploratory research. Semi-structured interviews were conducted with eight social enterprises in the Gauteng area. The interview questions are presented in Appendix A and the key findings from the data collected from the interviews are presented in this chapter.

Table 1 shows a summary of the social enterprises that were interviewed. The type of enterprise is based on the venture typology in Figure 1 (Neck et al., 2009). Social enterprise (SE) 4 and SE 7 were founded as non-profit organisations and only became hybrid ventures in 2018. The "capital leveraged" column is based on Mair et al.'s (2012) classification of social enterprises regarding the four forms of capital that can be leveraged as explained in Chapter 2.

Table 1: Summary of the social enterprises interviewed

Social enterprise (SE)	Venture typology	Years in existence	Area of operation	Capital leveraged	Main revenue from
SE 1	Social purpose (Tech company)	2 years	Education	Human	Schools and parents
SE 2	Social purpose (Tech company)	4 years	Volunteering	Social	Schools and parents
SE 3	Social purpose (Tech company)	3 years	Volunteering	Social	Big corporates
SE 4	Hybrid venture (Tech company)	2 years	Legal advice	Political	Anyone seeking legal advice
SE 5	Hybrid venture	19 years	Arts and culture	Human	Concerts
SE 6	Hybrid venture	7 years	Recycling	Economic	Second-hand clothes
SE 7	Hybrid venture	5 years	Personal hygiene	Social	Retail
SE 8	Hybrid venture	6 years	Community upliftment and tourism	Social	Tourists

From the summary in Table 1, it can be seen that five out of the eight social enterprises interviewed were hybrid ventures and the other three social purpose ventures. Half of the enterprises identified as technology companies. All eight enterprises have been in existence for more than two years, but SE 4 and SE 7 only introduced their revenue models in 2018. Previously they were non-profit organisations.

5.2   Research question 1

What types of ICT are used in social enterprises?

Research question one aims to identify the types of ICT used by social enterprises in the key areas identified in the Social Entrepreneurship Framework in Figure 5 (Austin et al., 2006).

Table 2 shows a summary of the types of ICT that were mentioned during the interviews in each of the key areas of the Social Entrepreneurship Framework. The count in the table resembles the number of social enterprises that make use of the ICT type in the respective areas.

Table 2: Types of ICT used by social enterprises

ICT type	Key elements of the Social Entrepreneurship Framework					
	Capital	Context	Opportunity	People	SVP	**Total**
Business cloud services - SaaS	6	3		1		10
Social media	1			3	5	9
Business cloud services - PaaS	3		3		3	9
Electronic payment solutions	8		1			9
Online compliance services		8				8
Free software	1		2	1	3	7
Data storage	2	1		1	2	6
Hardware		1	2		2	5
Google search engine				1	4	5
Microsoft Excel	2	1		1		4
Email	2				2	4
Basic mobile phone use			1		2	3
e-learning					2	2
Crowdfunding			1			1
Instant messaging					1	1

For the purpose of this research, the definition of the ICT types are shown below:

The most frequently used ICT type is business cloud services (SaaS). This includes could-based software like Sage Pastel, Xero, SMEasy and Asana which are financial and project management tools.

Social media is used by all the social enterprises that were interviewed. These social media platforms include Facebook, Twitter, Instagram, blogs and TripAdvisor.

Two of the social enterprises offer business cloud PaaS services to clients. They are both volunteering platforms that connect clients to relevant volunteering causes. Two other social enterprises make use of PaaS services from other companies. The one is an enterprise that relies on tourism and make use of Airbnb Experience, the other enterprise offers affordable legal advice and make use of a chatbot that runs on a third party platform and responds to legal questions through the use of AI.

All eight enterprises make use of some form of electronic payment solution. These include online payments (e.g. electronic fund transfers through bank websites and making use of vendors like Payfast, Paypal to pay on websites) using portable payment solutions with card readers from, e.g. Yoko, mobile money transfers and bank debit orders.

Online services that assist in managing regulatory compliance is also used by all eight of the interviewees. Online services available is used to submit tax returns via SARS e-filing, register as a Public Benefit Organisation (PBO) on the SARS website, make payments to the Compensation Commission on the website, make use of the Companies and Intellectual Property Commission eServices, register non-profits online and submit annual reports on the Department of Social Development website.

Free software includes WhatsApp and open source software like Sketchup and Android software that enables biometric identification.

Hardware includes various types of hardware that some of the enterprises use or plan to use in the near future. These include a legal kiosk that is similar to the old payphones, personal computers, barcode scanners, electronic scales, a Point of Sale station and electronic tablets.

Basic mobile phone use includes the use of mobile internet, video calling and mobile applications.

Crowdfunding includes Backabuddy and MySchool.

Instant messaging refers to online chats (excluding WhatsApp).

5.2.1 Opportunity

Research question 1.1: What types of ICT are used to exploit opportunities?

Opportunity refers to the organisation's desired future state. The aim is to identify what types of ICT the social enterprises use to identify and exploit future opportunities to satisfy social and economic needs in the future.

Table 3 shows that five out of the eight interviewees identified ICTs used to achieve future goals.

Table 3: Types of ICT used to achieve future goals

Types of ICT	SE 2	SE 3	SE 4	SE 5	SE 6	**Total**
Business cloud services - PaaS	1	1	1			3
Free software			1		1	2
Hardware			1		1	2
Google search engine		1				1
Basic mobile phone use					1	1
Crowdfunding				1		1
Electronic payment solutions					1	1

Three out of the five social enterprises make use of cloud services and all three these companies identify themselves as technology companies. Their business models are built on some form of a web-based platform which will be used to achieve both economic and social goals. The roles that these ICTs play to exploit future opportunity will be discussed in the next section.

5.2.2 People

Research question 1.2: What types of ICT are used to manage people resources?

The People element of the framework refers to how the enterprise employ, manage and retain employees or volunteers. Table 4 shows the types of ICT that are used by social enterprises to manage their human resources.

Table 4: Types of ICT used to manage human resources

Types of ICT	SE 1	SE 2	SE 3	SE 4	SE 7	**Total**
Social media	1		1	1		3
Business cloud services - SaaS	1					1
Free software					1	1
Data storage		1				1
Excel			1			1

Five out of the eight interviewees confirmed that the enterprise makes use of ICT to manage human resources. Three out of the eight respondents make use of social media to recruit new talent or expand their network. These social media platforms include LinkedIn, Facebook and personal blogs.

5.2.3 Capital

Research question 1.3: What types of ICT are used to access and manage finances?

Capital refers to how the social enterprise access capital and manage their financial resources. Table 5 shows a breakdown of the types of ICT that each social enterprise users to manage their financial resources.

Table 5: Types of ICT used to manage capital

Types of ICT	SE 1	SE 2	SE 3	SE 4	SE 5	SE 6	SE 7	SE 8	**Total**
Electronic payment solutions	1	1	1	1	1	1	1	1	8
Business cloud services - SaaS	1		1	1		1	1	1	6
Business cloud services - PaaS		1	1	1					3
Excel		1			1				2
Data storage		1	1						2
Email					1	1			2
Social media							1		1
Free software						1			1

All eight interviewees confirmed that they do make use of electronic payment solutions. Six out of the eight social enterprises make use of some form of cloud-based software for financial management. These include vendors like Sage Pastel, Xero and SMEasy. The other three enterprises make use of Excel for this purpose. The other two do financial management in Excel.

Three of the enterprises make use of some form of cloud-based platform as part of their revenue models.

5.2.4 Context
Research question 1.4: What types of ICT are used to manage context?

There are different external factors, outside of the control of management, that impacts on an organisation. These include the macro-economy, tax and regulatory compliance as well as the socio-political environment. Depending on the area in which the social enterprise operates there might be specific regulatory requirements that it needs to comply with. All eight of the interviewees confirmed that they make use of ICT to manage these external factors. The responses from the interviewees are shown in Table 6.

Table 6: Types of ICT used to manage external factors

Types of ICT	SE 1	SE 2	SE 3	SE 4	SE 5	SE 6	SE 7	SE 8	Total
Online compliance services	1	1	1	1	1	1	1	1	**8**
Business cloud services - SaaS	1					1		1	**3**
Data storage						1			**1**
Hardware						1			**1**
Excel		1							**1**

Online services are used to submit tax returns via SARS e-filing, register as a Public Benefit Organisation (PBO) on the SARS website, make payments to the Compensation Commission on the website, make use of the Companies and Intellectual Property Commission eServices, register non-profits online and submit annual reports on the Department of Social Development website.

The cloud services used to manage external factors include accounting software from Sage Pastel and Xero as well as project management software called Asana and will be explained in more detail in the Research Question Two section.

5.2.5 Social value proposition
Research question 1.5: What types of ICT are used to achieve the social value proposition?

The social value proposition of a social enterprise is the most important element and central focus of the enterprise. The aim is to understand what types of ICT social enterprises use to identify a social need, achieve the social mission and measure social impact. All eight of the interviewees indicated that they do make use of ICT to achieve their social mission and a summary is shown in Table 7.

Table 7: Types of ICT used to achieve social value proposition

Types of ICT	SE 1	SE 2	SE 3	SE 4	SE 5	SE 6	SE 7	SE 8	Total
Social media				1	1	1	1	1	5
Google search engine	1		1	1	1				4
Free software	1			1		1			3
Business cloud services - PaaS	1	1	1						3
Data storage		1	1						2
Basic mobile phone use	1					1			2
Hardware					1	1			2
e-learning				1			1		2
Email		1			1				2
Instant messaging	1								1

Five out of the eight enterprises make use of social media to help fulfil their social value proposition. This includes Facebook, Twitter, Instagram and TripAdvisor.

Out of all the elements in the Social Entrepreneurship Framework (Austin et al., 2006), the interviewees mentioned the most types of ICTs used to achieve the Social Value Proposition. The role that these ICTs play will be discussed in the next section.

5.3 Research question 2

How are ICTs used to created social and economic value in social enterprises?

Research question two aims to explore how the ICTs identified in research question one are used in the social enterprise to create social and economic value.

The qualitative data analysis approach that was used is explained in Chapter 4. The interviews were transcribed and the relevant data was captured in a spreadsheet. Codes were assigned to the data and common themes were identified from the codes.

The codes for that were assigned to the responses from research question two will be discussed in this section and quotes from the interviews will be displayed. The analysis of the findings and the common themes that emerge will be discussed in the next chapter.

Table 8 shows a summary of the role that ICT plays in each of the key areas of the Social Entrepreneurship Framework. The count in the table represents the number of social enterprises that identified the respective role of ICT for in creating value.

Table 8: The role of ICT in creating social and economic value

Code – ICT role	Key elements of the Social Entrepreneurship Framework					Total
	Context	Opportunity	Capital	SVP	People	
Accessibility		2	3	5		**10**
Financial management	1	1	8			**10**
Efficiency	1	1	4	2	2	**10**
Increase capital		1	8			**9**
Legal compliance	8					**8**
Marketing				7		**7**
Education / Skills development				5		**5**
Personalisation		1	2	1		**4**
Scalability		3	1			**4**
Communication			1	1	1	**3**
Building network		1		1	1	**3**
Recruitment				1	2	**3**
Measure value creation				3		**3**
Performance management					3	**3**
Convenience		1	1	1		**3**
Collaboration				2		**2**
Data-driven decision making				2		**2**
Privacy and security		1		1		**2**
Internal auditing		1				**1**
Total	**10**	**13**	**28**	**32**	**9**	

From Table 8 it can be seen that ICT is most commonly used to assist with financial management, accessibility and to improve efficiency. In the Social Entrepreneurship Framework it is mostly used in the social value proposition area. The detailed results will be presented in the rest of this chapter.

5.3.1 Opportunity

Research question 2.1: How are ICTs used to exploit opportunities?

Five out of the eight interviewees believe that ICT has a role to play in the social enterprise achieving future goals. The breakdown of the roles of ICT to achieve future goals are shown in Table 9.

Table 9: The role of ICT in achieving future goals

ICT role	SE 2	SE 3	SE 4	SE 5	SE 6	Total
Scalability	1	1	1			**3**
Accessibility			1		1	**2**
Convenience					1	**1**
Personalisation			1			**1**
Internal auditing					1	**1**
Efficiency					1	**1**
Privacy and security					1	**1**
Building network		1				**1**
Increase capital				1		**1**
Financial management					1	**1**

Three of the social enterprises are relying on ICT to scale the business. All three of these enterprises identifies themselves as technology companies and make use of some sort of online platform to offer services.

SE 2 make use of a web-based platform that puts schools and students in touch with charitable causes and allow them to register and track community hours. Their web platform is their sole source of revenue and their way of achieving their social mission. The more users they have, the more revenue and the bigger their social impact. They

see their web platform as crucial to reaching their future goals as can be seen from this transcript extract:

> SP 2: *"We've had quite a challenge with our website and had now gotten to a point where it's completely stable and able to perform the functions we wanted to perform, now we can scale. So if it weren't for the stability of our website we wouldn't be able to take additional users."*

The web-based platform is a PaaS and classified as a business cloud solution in Table 3.

SE 3 has a very similar business model to SE 2, but the main clients are big corporates instead of schools and students. SE 3 assists corporates in managing staff volunteering and putting them in touch with relevant causes. To achieve this they make use of two types of ICT: 1) doing research via the Google search engine to identify potential clients and 2) adding the clients to their web platform. The role of the Google search engine, in this case, is to help the social enterprise build their client network (Table 9). These roles are confirmed by the extract from the transcript:

> SP 3: *"So our plan is to get more clients. We are constantly pitching to new clients. We do research on which companies need help with employee volunteering programmes and add them to our web platform. The web platform allows us to scale."*

SE 4's social mission is to make legal advice accessible to everyone. The enterprise wants to make use of a Chatbot, accessible through a cloud-based software as a service (SaaS), that can respond to clients in their natural language through the use of Artificial intelligence (AI). This will take away language as a barrier and allow the enterprise to scale into Africa. It also personalises the service for the client (see "personalisation" in Table 9). In this case, the ICT makes the personalised service scalable and assessable. These roles are confirmed by this extract from the transcript:

> *"…it's important that people can communicate in the language of their choice. It's important for me that the bot can pick up slang, it can tell the difference between slang in Alex and slang in Diepsloot. You might not hear them saying the same thing, but they're literally asking the same question. But the guys who built the demo for me, who I'm hoping will also do the full version, their license, their product catches any language. So that also helps me in terms of scaling into*

Africa. So it will pick up Shona, it'll pick up Swahili, it'll pick up all these languages."

SE 4 also wants to make use of WhatsApp as a platform which will make it accessible to everyone who uses a smartphone. For those who do not own smartphones the plan is to put up "legal kiosks" in identified areas where potential clients will be able to access the services. This is confirmed by this extract from the transcript:

> SE 4: *"Then the other idea that I have for people who do not have access to smartphones is to have legal kiosks. I got the inspiration from looking at those old Telkom card phones. That's exactly what it is. It's that with a screen. You can watch the videos on there. For privacy, you have something similar to the handle of the phone because you don't want people knowing what you're listening to."*

WhatsApp is classified as "instant messaging" and the "legal kiosk" as "hardware" in Table 3.

SE 5 requires a new building to fulfil their future plans and need to raise funds for it. They are planning on making use of crowdfunding through BackaBuddy and MySchool. The ICT type is captured as "crowdfunding in Table 3.

> SE5: *"We need a building for the academy and will soon be raising funds for that. We might use something like BackaBuddy or any of the crowdfunding platforms. We're also exploring the possibility of making use of MySchool cards and we're waiting for feedback from that."*

SE 6 employs many disabled people who find it difficult to perform certain basic tasks, e.g. signing a register. The use of an integrated biometric identification system can assist with overcoming this obstacle. Free software on certain smartphones gives the company the ability to do this at almost no cost.

> SE 6: *"The real benefit from technology implementation would be when we have improved the entire process and when it enables us to include more people with disabilities. They'll be able to sign in with their fingerprints or use their eye and it can tell us what hours they're working and also in which sections."*

The use of ICT gives disabled people access to employment. In Table 3 the type of ICT is "free software".

SE 6 also plans to have mobile apps developed for schools to track the progress of their volunteering projects. The role of ICT, in this case, is offering convenience to the schools who are the biggest contributors of second-hand clothes.

> SE 6: *"If we digitise the process then student leaders will ultimately have an app. Digital data capturing will give live data by scanning bags which means the student leaders can get live updates. They don't need to sit and wait for weeks while we give the data, they can see the data as its happening. They can see which classes are doing well and which ones are not participating."*

The mobile app is classified as "basic mobile phone use" in terms of the ICT type in Table 3.

SE 6 is planning a complete digital transformation in the enterprise that, amongst other things, connect an electronic scale and barcode scanner to an internal system. This will allow for digital data capturing and will make internal auditing much simpler.

> SE 6: *"when I start doing our coding system it will be live so we can even see situations happening when it happens and react to it and not waste a lot of time going back doing internal auditing."*

The scanner and electronic scale are classified as hardware in Table 3. The digitalisation will also make the enterprise more efficient by replacing manual data capturing with the electronic scale and bar code system:

> SE 6: *"If we add a barcode to the slip that you can scan and all our scales are electronically interfaced then it can automatically update the system with the weight and where it's from."*

SE 6 plans to make use of more secure servers in the future to ensure data security:

> SE 6: *"…we have a company that sits with our IT staff and they must make sure that our data is secure and safe. When we have the new building, we'll put in servers that are more secure and compliant especially on the data that we have and then the reporting that we would do."*

The servers are also classified as "hardware" in Table 3.

SE 6 is aiming to move towards a cashless environment shortly and will be making use of electronic payment solutions. This will assist them with their financial management.

> SE 6: *"We do still move cash. But as of the end of this month, we will be fully electronic. We do EFT and we will have card readers now as well. There's also a*

whole lot of more technology coming out with phones, e.g. Iris recognition with Samsung. All of these things will be available."

5.3.2 People

Research question 2.2: How are ICTs used to manage people resources?

The role of ICT to employ, manage and retain employees and volunteers are summarised in Table 10.

Table 10: The role of ICT in managing human resources

Role of ICT	SE 1	SE 2	SE 3	SE 4	SE 7	Total
Performance management	1	1	1			**3**
Recruitment	1		1			**2**
Efficiency	1	1				**2**
Communication				1		**1**
Building network					1	**1**

Three of the SE's make use of ICT to manage staff performance. SE 1 makes use of a cloud-based project management tool (SaaS) that can be used to track tasks and performance. It also improves the efficiency of their operations. The tool can give recognition and allocate rewards for good work:

> SE 1: *"We also use a Project Management App called Asana which keeps track of everyone tasks, timelines and shows availability and schedule. We use ICT mainly for efficiency. We use ASANA where employees get badges and rewards as well as money."*

SE 2 use reports that can be accessed from their database to track staff performance:

> SE 2: *"…we are able to pull reports from our back-end. It tells us exactly the turnaround time for verifying hours. We have a turnaround period of three to five days. So a staff member is tasked with ensuring that hours done within that time period is verified. We are able to actually see the length of time it takes to verify those hours."*

SE 3 make use of Excel to capture and track performance targets:

SE 3: *"In terms of managing performance, we have very strict performance targets. We have very firm goals that are very structured. They're amazing. We track it on Excel."*

SE 1 and 3 make use of social media to recruit new talent:

SE 1: *"I met the cameraman because he posted on Facebook that he needed work."*

SE 3: *"For new talent, we don't like to go through agencies. We do post online. We post on Andy's blog; we post on our blog. We are very firm believers in our network… We all put on our Facebook pages, we put on social media and we get somebody that we kind of know will fit in."*

SE 2 uses their database and automatically runs reports and email a list of all the volunteering hours that was done during the week to the non-profit organisations. This is a much more efficient and less time-consuming way of verifying the hours than the traditional way which required letters to be sent to the organisations that they then need to sign and return.

"*Every single organisation where children have volunteered will receive a list of all the children that have volunteered every week. And the benefit of that is that traditionally we had to write 20 letters and email them which takes a long time, whereas now we email a list and they literally go through the list and just tick or decline or edit on the website. They get an email and then they log on and then they just tick, tick, tick and what it also does is it prompts the next action. So obviously the next action is to put more volunteering opportunities."*

SE 7 communicates with part-time factory workers via WhatsApp to notify them of new orders.

"I communicate with the factory workers via WhatsApp."

SE 4 used LinkedIn to build her network and gave the enterprise access to a valuable skill:

"I found the lady who did the bot for me on LinkedIn... I didn't know this woman from a bar of soap… she called me into her office and then we had a chat and she built the bot. So I'm realising things are possible. It's really amazing."

Collaboration and social networks

In every interview, the interviewees mentioned at least one example of the value of collaboration and social networks to social enterprise.

SE 1 gets the software that is used for educational purposes from an online community where they share open source software.

> *"The programs we do use are all open source and part of a community where you can find information online."*

SE 2 gets volunteers from their personal network.

> *"Quite a few of the activators are counsellors and then we work extensively with Dlala Nje which is an NGO at Ponte. Quite a lot of the people that work for them also sort of work for us because it's not in any way conflicting. We also get volunteers through word of mouth. E.g. for Mandela Day I think we had about 40 staff activators and most of them were just friends of friends that we train up and just obviously check in terms of working with children."*

SE 3 only employ people from their personal network.

> SE 3: *"If you don't have the heart to do what we do then you don't fit in. So we'd rather use the network of our current staff. We all put on our Facebook pages, we put on social media and we get somebody that we kind of know will fit in. Our culture is very important. When we need a new recruit, our team leader will select a few candidates and the entire team will interview that person. If we don't all unanimously agree, then that person does not get the job."*

SE 4 believe that social entrepreneurs need to work together to be successful.

> SE 4: *"As social entrepreneurs you have to function like a tribe and you have to understand that you're part of a tribe because you can't do it all alone and there are other people out there who have more connections than you do and who know things and because we're all social entrepreneurs everyone's willing to help everyone. I don't know if it's only unique to social entrepreneurs because what drives us is that we're actually trying to change the world and we're crazy enough to think that we can and I think that we're all willing to help each other move to the next level or move to the next step if it means that the world will become a better place."*

SE 5 get most of their business from their existing network of corporate clients.

> SE 5: *"A lot of our bookings are done through corporate entities to tell them about the company. We have a network and now it's just a matter of touching base once a year, having a quick coffee with previous partners of clients and just remind them of what we're up to."*

SE 6 get professional services for free from one of their clients.

> SE 6: *"SAGE Pastel is one of our customers. So they've opened it to us and offer training for free. They offer us all the applications across the value chain… The non-profit pays nothing. SAGE gives them for free."*

SE 7 get sponsorship from a partnership with another non-profit organisation.

> SE 7: *"… we picked up a nice sponsor because I went and built a house with Habitat for Humanity. So it's very much based on your network."*

SE 8 explained that they only employ people from the local community or people that they know well.

> SE 8: *"We recruit through our network e.g. our accountant is from good friends of ours who run a bar in Melville. We've never gone through a formal recruitment process to find people. We access the talent ourselves."*
>
> SE 8: *"We look at the community for people to do tours because the tour becomes richer when you use locals."*

5.3.3 Capital

Research question 2.3: How are ICTs used to manage capital and financial resources?

All eight interviewees confirmed that the enterprise makes use of ICT to manage and access capital.

Table 11: The role of ICT in managing finances

Role of ICT	SE 1	SE 2	SE 3	SE 4	SE 5	SE 6	SE 7	SE 8	Total
Financial management	1	1	1	1	1	1	1	1	8
Increase capital	1	1	1	1	1	1	1	1	8
Efficiency	1	1	1			1			4
Accessibility				1		1		1	3
Personalisation	1		1						2
Communication					1				1
Convenience			1						1
Scalability				1					1

Concerning accessing and managing capital, the most common role of ICT is to do financial management e.g. book-keeping, financial projections and making payments and transfers. The types of ICT used for this is cloud-based accounting software (SaaS) and Excel.

SE 1 and 3 makes use of Xero to manage finances. SE 1 also believes that Xero improves efficiency and that the use of AI personalises the service to the social enterprise's needs:

> SE1: *"There's a program called Xero which uses AI to identify trends within your spend or income. So this kind of technology is used to find the most efficient way of running a company."*

> SE 3: *"We use a system called Xero. It works similar to Sage, but much better. It's nice for tracking expenses, it has nice reports that's user-friendly compared to Pastel."*

SE 6, 7 and 8 make use of SAGE Pastel for financial management purposes. SE 6 and eight both mentioned that it is very accessible to small businesses because it's so affordable:

> SE 6: *"SAGE Pastel is one of our customers. So they've opened it to us and offer training for free. They offer us all the applications across the value chain. I mean, we pay R200 a month each per license. The non-profit pays nothing. SAGE gives them for free."*

> SE 7: *"We have an external bookkeeper who does our books every month and I think he works on Pastel. We've got big reporting systems and we have to file our annual reports and our financials and all that sort of stuff."*

SE 4 made use of SMEasy and highlighted its ease of use which makes financial management services accessible even to those who do not have accounting or bookkeeping knowledge:

SE 4: *"…this platform called SMEasy that's a business and accounting management system. So it's basically a very simple accounting platform for entrepreneurs. You interact with the platform as if you were interacting with another human being, but then in the background, it does all the calculations and all the books."*

Some of the smaller enterprises have simpler financial management requirements and manages it on Excel.

SE 2: *"We don't use a payroll system as we don't have enough people. The accountant uses Excel in terms of forecasts etc."*

SE 5: *"Our CEO manages the books and mostly make use of Excel for book-keeping and financial forecasts."*

ICT also plays a role in increasing capital for all eight social enterprises that were interviewed. SE 1 sells electronic sets via their website:

SE 1: *"We do sell our products via the website."*

SE 2 make use of their database to create reports for schools:

SE 2: *"The schools pay for the reporting. We do very proactive reporting. It obviously takes a huge amount of the administration work away from the school."*

SE 3 sell the use of their PaaS to big corporates. Similar to SE 2 they also run reports from their database and share it with their corporate customers as part of their service:

SE 3: "*They pay a monthly retainer. We give them the platform and connect them to the causes. Here's the site, get your employees to log in and do good."*

"We send Vodacom constant reports on what their employees are doing."

SE 4 has an agreement to share content on a mobile company's video on demand platform (cloud-based Platform as a Service). When users watch the video, a portion of

the revenue paid to the mobile company goes to SE 4. This offers scalability to SE 4 who immediately has access to the mobile company's customer base.

> *"In terms of generating revenue, I'm in a revenue share agreement with the mobile company where I share my video content."*

SE 5 sell tickets for their shows as their main revenue stream. These tickets are sold on their website or can be bought with card payments at the door. Email communication with their partners also assists them in selling tickets. The company also has a trust and donations are mostly done via electronic funds transfer.

> SE 5: "*We tour our work. A lot of that is done via email communication where we update our partners when we travel. Emails do play quite a big component in us selling.*"

> "*We do sell tickets online and we recently started embedding a ticket portal on our website.*"

> "*At the door, we also want to be able to accept card payments as we are using into a cashless society. We are acquiring a portable payment system through Yoko.*"

> "*Donations are mostly done via EFT to the trust account.*"

SE 6 sells second-hand clothes to micro businesses and orders are placed on WhatsApp and payments are done electronically.

> SE 6: "*All our orders are done via WhatsApp and email and almost all payments are electronic.*"

Up until now SE 7 has relied on donations to fund their operations but are now moving into retail in order to have a constant revenue stream. Donations are mostly done via EFT, paid on their website or through debit orders.

> SE 7: "*We have individual donors, we have events and we have corporate sponsors. They can do donations via the website, debit order or EFT.*"

SE 8 rely on tourists to book tours to gain revenue.

> "*We would be nowhere without a website that enables people to book experiences online... People buy tickets from the website and TripAdvisor as well as an Airbnb experience.*"

The interviewees also believe that ICT helps to improve efficiency. SE 2 and 3 reduces the administrative burden of managing volunteering by offering their clients online platforms to manage volunteering more efficiently.

> SE 2: "*So we thought well children should be able to log them (community hours) online. In the past, you would find that the longest time was actually the mom or the au pair or the child phoning organisations and asking if they can come volunteer. So what we do is we take all of this away. So we present to the children volunteering opportunities.*"

> SE 3: "*…worked out the revenue plan where what we do is we have this platform, this website, this service of selected causes who put up needs… So what we do is this product we have we offer to certain clients and they pay us a monthly retainer to use this product for their employee volunteering program.*"

SE 6 explains that before ICT it was a very tedious job to manage their finances, but the online accounting service helped them to do it much more efficiently:

> "*We just went over to SAGE Pastel… So that's changed everything because before our books were done very offline type of stuff where we did data capturing off our bank statements. But now it's integrated... it will feed from the bank statement, so it automatically allocates.*"

ICT enables SE 3 to offer corporate clients a personalised service through their PaaS offering.

> SE 3: "*So, e.g. Vodacom is one of our clients and we take the Forgood website and we white label it; we call it Vodacomforgood, we put it behind a login for Vodacom employees only. They can then volunteer, they can donate goods and we can then track exactly what they do.*"

SE 3 also offer their clients convenience through the personalised support that they offer:

> SE 3: "*we give them a lot of support, we have a whole team that only works with the clients, they've got 3-4 clients each and make sure they're happy with the site, if they want specific causes, if they like a specific orphanage, we'll approach that orphanage, we'll get them on the site, we make sure all the causes have the right needs like WSP have a project called "Spade in the ground" where they want causes to ask for a project like a borehole system or a filtration system or*

solar panels and they come and they put that in. So we make sure the causes now go and say listen, this is what we need, all the details are there, so we work with them constantly to make sure they use the platform in the best way."

5.3.4 Context

Research question 2.4: How are ICTs used to manage the context?

ICT has a role to play in all the enterprises that were interviewed regarding managing external factors. Table 12 shows a summary of the responses.

Table 12: The role of ICT in managing external factors

Role of ICT	SE 1	SE 2	SE 3	SE 4	SE 5	SE 6	SE 7	SE 8	**Total**
Legal compliance	1	1	1	1	1	1	1	1	**8**
Efficiency						1			**1**
Financial management						1			**1**

ICT is mostly used for managing compliance with various regulatory requirements. The social entrepreneurs make use of various institutions' online compliance services to, e.g. submit reports, make payments, submit tax returns and ensure compliance.

Seven out of the eight interviewees mentioned that they make use of SARS e-filing to do tax returns.

> SE 1: *"Tax is managed by an outsourced accounting firm. They do make use of E-filing."*

> SE 2: *"We do use SARS e-filing."*

> SE 3: *"Our financial manager ensures that we are tax compliant and makes use of SARS e-filing."*

> SE 5: *"We make use of SARS e-filing."*

> SE 6: *"She uses SARS e-filing as well as SAGE Pastel."*

> SE 7: *"Our accountant does our tax returns via SARS e-filing."*

> SE 8: *"Our bookkeeping is outsourced and they make use of SAGE Pastel and SARS e-filing for bookkeeping and tax compliance."*

SE 1 operates in education and has to, e.g. be registered on the National Register for Sex Offenders (NRSO) and ensure their classrooms are health and safety compliant. To keep track of the requirements, they manage it on an online project management application (SaaS) called Asana.

> SE 1: *"On Asana you have different projects. So if you take this classroom, for example, there's a list of tasks to do with regards to the equipment, health and safety, etc. This specifies all the people I have to phone to come do the checks etc. This is on top of the list of tasks I have to do to assemble the classroom. The Kenyan authorities are even worse."*

SE 3 and 4 make use of third-party websites to register, make payments, update information and to submit applications and reports wherever legally required to do so.

> SE 3: *"We use the Compensation Commission's website to update our Compensation Commission payments."*

> SE 3: *"We use the company's CIPC system where we put in all our returns and update all our company details etc."*

> SE 4: *"The governance part is sorted because I have all my registration docs and DSD (Department of Social Development) application, I just have to do my PBO application and all of that. So the governance I can handle because I understand it... I do all the compliance with DSD, with CIPC I've mentioned all the returns I've filed and I can do it all online. Technology has made life easier and if you're willing to figure out how to do it, you can do it."*

SE 6 has to pay value-added tax (VAT) and is implementing a point of sale (POS) that is integrated with their cloud-based accounting software to assist with the management of this. This is an efficient way of managing the requirement and ensuring compliance.

> *"Now that we're doing VAT we have to implement a full point of sale so that when we do our VAT recons the end of October, we need to be ready. So that's why we have full focus on the SAGE application and point of sale because we don't want to have issues. We've implemented VAT on the first of September and we need to be fully compliant by the end of October."*

Complexity and limited resources

Most of the interviewees expressed difficulty navigating the external landscape either due to complexity or due to limited resources. Some also felt that small businesses are over-regulated and that staying compliant puts a significant administrative burden on the business. Some mentioned that they do not have enough resources to manage it.

> SE 1: *"Tax is managed by an outsourced accounting firm. Because I'm working in education I have to be registered on the sex offenders list as well as SACE (South African Council of Educators) and then things we have to be prepared for is first aid, fire, electrical work have to be done by a certified electrician, 3D printers have to be compliant, etc. There are companies that do, e.g. the sex offender check. They come to you and do your fingerprints, take photos, your ID number, etc. and give you a certificate if you're not on the sex offender's list. This is valid for a year. Health and safety officers do the checks to make sure it's a safe learning environment. They also do regular checks."*

> SE 6: *"The two companies are done completely separate. It's painful."*

> SE 7: *"Other than that, we don't have really any regulation. We really don't need more. We already have to comply with 35 different acts as a small business, you know, can you just like not make it 40? I mean just in terms of the NGO sector, e.g. for the PBO, I've got to register all my section 18A certificates (for donations) and that takes a day of my month. Our bookkeeper does all the pay as you earn UIF, all that sort of stuff. I have to do the petty cash and that kind of stuff for him and that takes a day out of my life. I have to file annual reports with social development that takes a month. Then you've got to file all your board members all the board resolutions. So by the time we have filed everything to be compliant it's taken a whole lot of our time. We actually need an administrator. We need to pay one person just to administrate. If you're a small NGO like we are, I can't afford to pay somebody. It's quite difficult to remain compliant."*

SE 7 wanted to get their product SABS approved but found it too expensive.

> SE 7: *"Our pads were SABS tested for absorbency levels. I always thought they were SABS approved. The SABS said no, we just had them tested, to get it approved will cost an extra R20,000. So I said, okay, well then we'll just have them tested. I suspect that when I go into retail, it's going to be a different ballgame."*

SE 7 was also unable to make use of some of the online services to assist with managing compliance due to not having the passwords and not being able to change it.

> *"So in terms of managing compliance online. Our founder passed away and with that we lost all the passwords to all the systems. And you cannot get Social Development to reset the password because they send the one time pin to the deceased's phone that no longer exists. So succession planning and password recording is a very important part of a business. It's taken us over a year to sort out passwords. In fact, LinkedIn, we can't sort out and Social Development we can't sort out. So in this case, technology is not helping at all."*

SE 8 admitted that there is uncertainty around what is required to be compliant. A lack of resources was again highlighted as one of the reasons why it is difficult to manage compliance and they felt that there was a lack of support from the government for social enterprises.

> SE 8: *"It is quite a big administrative burden to keep your finances and compliances up to date especially when you have two entities and on top of it the nature of the two businesses are completely different which adds to the complexity. I would say the administrative part is a weakness for us. I would much rather spend my time focused on things that would grow the business than to worry about the admin part of it."*

> SE 8: *"This has actually been a bit of a pain because the South African government doesn't support endeavours like this and I wish it did because I think the more of them that came up, the better kind of world we would live in. This has been a huge frustration for us."*

> SE 8: *"Our building has to be health and safety compliant. We have a fire extinguisher and first aid kit, but other than that we haven't really looked into what is needed to be compliant. We are very low on resources. Ideally, you would want a person looking after health and safety. I'm sure that government is lenient towards small businesses when it comes to this as they know that small businesses struggle before they become mature and look after things properly."*

Due to the complexities surrounding regulation and compliances, some of the social enterprises outsource this to third parties or approach them for advice or training.

SE 2: *"What's very important especially because we train our facilitators to go on camps with the children is that we have to have a good knowledge of the child protection act of POPI which is the protection of personal information. They've all been through extensive "courageous coaching" and it's done by a child protection and child's rights advocate. Our facilitators know exactly what the rules are around that."*

SE 3: *"We also have to be compliant with our client's requirements, e.g. BEE status. Whenever we need an expert, we would bring in an expert."*

SE 5: *"In terms of health and safety we recently took on a differently abled trainee. This forced us to really re-iterate safety precautions around the building. We did a whole training program through a third party company."*

5.3.5 Social value proposition

Research question 2.5: How are ICTs used to achieve the social value proposition?

Of all the elements in the theoretical framework in Figure 5, ICT is mostly used in the social value proposition. Table 13 summarises the responses regarding the role that ICT plays in the social value proposition of these enterprises.

Table 13: The role of ICT in achieving the social value proposition

Role of ICT	SE 1	SE 2	SE 3	SE 4	SE 5	SE 6	SE 7	SE 8	Total
Marketing		1	1	1	1	1	1	1	7
Education / Skills development	1	1		1	1		1		5
Accessibility	1	1	1	1		1			5
Measure value creation	1	1	1						3
Efficiency	1	1							2
Data-driven decision making	1	1							2
Collaboration	1			1					2
Communication			1						1
Building network	1								1
Personalisation		1							1
Convenience		1							1
Privacy and security				1					1
Recruitment					1				1

ICT is used by seven of the social enterprises for some form of marketing or brand awareness.

> SE 2: *"Every single week the children and their parents receive an email newsletter called "Ready, steady, volunteer" and what it does is keep volunteering top of mind."*

> SE 3: *"Then the users go onto the website, they find us via Google or via our ads and they go onto the site and they click connect…"*

> SE 4: *"And then on a bigger scale, on a bigger marketing scale, I'm going to do the usual Facebook, Twitter, and just trying to get the word out there. Whatever's free that I can use. That's what I'm going to use."*

> SE 5: *"We also do communicate about our programs on our social media platforms. Facebook is our biggest platform because we can put quite a lot of content. On the go we use Twitter and then for some of the professional photographs we use Instagram."*

> SE 6: *"So that video you saw everyone loves, because that video is both for left and right brain people - everyone gets it. So they use that video as their marketing video and then they do their own social media and we leave it to them, but they tag us and the kids are smart at this and they're using Instagram and everything."*

> SE 7: *"So we've got very active Facebook pages. I understand that we need to move more towards Instagram because this current generation, when I say like our Facebook page, they look at me as if I've crawled out from under a rock. So, you know, Facebook seems to already be outdated."*

> SE 8: *"The market that came here and booked tours were predominantly foreign (90%). What that meant is that journalists also came from other countries and what that meant was that we became a bigger brand internationally before we became recognised in our own country. This was mainly made possible through TripAdvisor and the media."*

Social media is the most frequently used type of ICT for marketing purposes.

Five of the social enterprises make use of ICT for education or skills development.

SE 1 make use of an online curriculum (cloud-based PaaS) to help students learn and progress at a speed they are comfortable with. The online curriculum provides a very efficient way of tracking progress and is a form of data-driven decision making.

> SE 1: *"To track progress, the kids do self-assessments and group evaluations online or with pen and paper. So the learners can get a self-evaluating form for the product they've developed, or they do it online as they go through it by completing quizzes. So they progress from basic electronics, intermediate electronics, and advanced electronics. They earn these badges and by the time they've completed the whole electronics course they get a badge and a file and then they can go print the badge that says I'm a GO electronics professional, etc. So each learner progress at his/her own pace."*

Doing volunteering forms part of the school curriculum and SE 2 helps the children to manage and complete this.

> SE 2: *"All hours are then verified properly and the child's able to build a social CV so when they started grade 8 to when they finished grade 12, they can log the hours every year and then see exactly how many hours they've done. It's a website portal."*

SE 4 created animated videos with legal advice to give clients the necessary skills to manage legal issues without hiring a lawyer. In collaboration with one of the mobile phone companies, these videos are also available on their video on demand platform.

> SE 4: *"I want to empower people to go forward without needing a lawyer. I want you to know that you can claim UIF on your own you must know that you can go to CCMA on your own and then I want to map out the process for you so that you have that comfort of knowing this is how things must go."*

SE 5 make use of online training for their dancers:

> SE 5: *"In terms of training, the dancers learn the repertoire from the internet. They have to do their research and there are computers available to the dancers that all have the company's repertoire."*

SE 7 make use of online videos to educate people about menstrual health:

> SE 7: *"Besides manufacturing, we educate. So we do a whole lot of menstrual health education. So we'll have an online course… we'll be able to train people in Pofadder and wherever."*

Five out of the eight interviewees highlighted that ICT add to their social value proposition because it improves accessibility in various areas. Free software is one of the types of ICT used by some of the enterprises for this purpose. SE 1 use open source software for educational purposes:

> SE 1: *"The tech we do use is all open source and part of a community where you can find information online."*

SE 2 and 3 make volunteering very accessible and convenient through their web-based platforms and also give them great variety so that they can do something they're interested in. Offering services that volunteers are interested in based on previous feedback is a form of personalisation. The volunteering platform also serves as a communication platform between the client and the charitable cause.

> SE 2: *"…it also gives them a huge variety of things that they wouldn't have thought of and our whole aim is that children will, with volunteering being very accessible and with them being able to volunteer according to what they like, that it will become a way of life rather than just ticking a box for the curriculum. So we look beyond the curriculum."*

> SE 3: *"So any people that want to help by volunteering time or donating goods or sharing their skills we connect those people to the causes that we have on our website and with causes we mean charities, NGOs, trusts. Any organisation that works as an NGO to help beneficiaries of some kind."*

SE 4 make use of WhatsApp to offer legal advice to clients. WhatsApp makes it very assessable and also gives the client privacy.

> SE 4: *"…I chose WhatsApp because it's accessible and its private so it means that you can literally have access to the law while you're sitting in your room privately."*

SE 6 make use of WhatsApp to manage orders from customers which make the service very accessible for micro business owners as everyone with a smartphone can use it.

> SE 6: *"So you're going to find that the obvious things like everyone using WhatsApp means everybody can order and all that is not even us implementing that, it exists."*

SE 6 also make use of affordable hardware to give disabled people access to employment:

> SE 6: *"They just pull out their tablet and they carry on working. Any person with a disability can use it because it's easy to use. I can get more than 60 % to join jobs that they can do right now. So that's where technology is going to be." "This is not technology that's rocket science anymore. This software is almost like freeware now and even these tablets it's not iPads, its tablets I can get for under a R1 000."*

ICT also plays a role in how feedback is received and value is measured.

SE 1 makes use of online chats and ratings and comments on the digital lesson plan to improve their service offerings. They also use collaboration with the teachers to improve the lesson plan.

> SE 1: *"Every two weeks we do an online chat with the teachers to check how they're doing. Lesson plans are digital and they are able to comment. They're able to chat to each other about the lesson plans e.g. saying this lesson was fun, but it didn't work because I had to produce 15 name tags with the 3D printers in x amount of time and there were too many kids and it didn't work. Then they can talk about it and find some solution."*

SE 2 and 3 keep track of all the volunteering that was done through their platforms (PaaS) and can do reporting on the perceived social value delivered.

> SE 2: *"We have a database with all the information. So just to give you an idea, in the last four years our volunteers did 195 000 volunteering hours – that's 22 years of volunteering in four years and that's to the benefit of 1,500 organisations."*

SE 3 also make use of rating system that allows volunteers and charitable organisations to rate each other.

> SE 3: *"We also have a rating system similar to Uber. You get an Uber, the Uber driver rates you, you rate him/her. We ask causes to rate the users because we need to know that the volunteers are good quality. In the same way, the people who work at Discovery… they rate the causes to say this was a great experience etc. All of this is tracked and saved a database. We can send a report to our clients that say of the x number of employees they've done so many causes and*

this is their ratings. Companies can use this to e.g. incentivise employees by awarding employees whose done great work and have wonderful ratings…"

Two of the interviewees believe that ICT plays a role in the enterprise being more efficient regarding delivering on its social value proposition. SE 1 has an online curriculum that makes it easy to track progress and allows students to progress at their own pace. The volunteering platform that SE 2 offers replace an old paper-based system and makes the process more efficient.

SE 2: *"What we found is that the traditional system of keeping track of volunteering hours was a card. It was a paper card or just a piece of paper in a file and the child will go along to the organisation and the organisation would sign the piece of paper or whatever it would be, The biggest problems with that was that the kids would lose them or the dog would eat them, or they would have never done them and the second problem that we found was that the children weren't often honest. So they were just downloading letter heads off the internet and writing their own community service letters. So we thought well children should be able to log them online."*

SE 1 has a unique classroom design that encourages students to collaborate. The classroom furniture is sold as part of the service offering and the furniture is custom build in South Africa. The social entrepreneur built his network of suppliers through doing research on using the Google search engine.

SE 1: *"As you look around you this classroom is very different from what you find in a normal classroom where the learner sits in rows vs this trapezoidal table where they can collaborate. All the furniture are custom manufactured in South Africa. You can write on the tables. I build this network of suppliers simply by googling and asking if they're willing to supply me for x number of schools."*

SE 5 recruits dancers with disadvantaged backgrounds and make use of social media to connect with the talent.

SE 5: *"A lot of the people that we engage with come through to us on our social media pages. So they'll inquire and we'll take the conversation via email and*

they'll get invited to the next audition phase. Our recruiting process for the trainees sits on our social media platforms."

5.4   Conclusion of results

In section 4.7 the data analysis approach for this study is explained. The interview data was condensed into 19 codes and the findings were presented in previous sections of Chapter 5. From the codes, seven themes emerged and are presented in Table 14.

Table 14: Themes that emerged out of the data codes

Code	Theme
Accessibility	Customer centricity
Convenience	
Measure value creation	
Education / Skills development	Education/ Skills development
Communication	Improve operations
Efficiency	
Privacy and security	
Data-driven decision making	
Personalisation	Manage resources
Financial management	
Performance management	
Recruitment	
Legal compliance	Regulatory
Internal auditing	
Building network	Social capital
Collaboration	
Marketing	
Scalability	Sustainability
Increase capital	

These themes give a high-level view of the role that ICT plays in the different elements of the social entrepreneurship framework. Table 15 shows the number of social enterprises that identified ICT as playing a role in each of the different elements of the social enterprise framework.

Table 15: The role of ICT in the social entrepreneurship framework

Row Labels	Capital	Context	Opportunity	People	SVP	**Total**
Manage resources	1		3	1	11	**16**
Improve operations	6	3	1	2	2	**14**
Sustainability	5	1	2	2	2	**12**
Customer centricity	4	1	4		2	**11**
Social capital	4	2		1	3	**10**
Regulatory	3	2		1	3	**9**
Education / Skills development	2	1	1		1	**5**
Total	**25**	**10**	**11**	**7**	**24**	

From the results, it can be concluded that ICT is mostly used to manage resources and improve operations in social enterprises. Secondly, it helps ensure sustainability and allows the enterprise to be customer-centric. It is also used to increase social capital and to navigate the regulatory landscape. Lastly ICT is used for education and skills development. Concerning the social entrepreneurship framework, ICT is mostly used to access and manage capital and to help the enterprise deliver on their social value proposition.

Chapter 6: Discussion of Results

6.1 Introduction

In this chapter, the results represented in Chapter 5 are interrogated in conjunction with the theoretical background that was discussed in Chapter 2's literature review.

This exploratory research aims to investigate the role of ICT in social enterprise value creation in South Africa. The study focused on two main areas: the types of ICT used by social enterprises to achieve their value proposition, and to investigate how ICTs are used to create social and economic value in social enterprises.

An expectation from the study is that social enterprises will use various types of ICT, depending on the type of organisation and the type of value-creating activities they engage with, to achieve and measure their social value proposition.

6.2 Description of the data environment and sample

The data in Chapter 5 was gathered from social entrepreneurs who are active in Gauteng. The unit of analysis was the social enterprise.

As there is no set definition of social entrepreneurs and because no comprehensive database of social entrepreneurs in South Africa exists (Urban & George, 2015), it was not possible to determine the entire population. Non-probability sampling techniques were therefore used (Saunders & Lewis, 2012).

The enterprises studied were identified according to convenience sampling methods. Purposive sampling was also used, with the researcher using self-judgment to select sample members based on specific criteria to meet the research objectives (Saunders & Lewis, 2012). In this case, the focus was on social purpose ventures, enterprising non-profits and hybrid ventures that have been operational for more than a year and make use of ICT in at least one of the key areas described in Austin et al.'s (2006) theoretical framework.

Snowball sampling techniques were also used by asking the social entrepreneurs interviewed for references to other social entrepreneurs in their networks that met the

requirements stated above. Due to the limited time to conduct the research, only social enterprises in Gauteng were included.

6.3   Results: Research question 1
What types of ICT are used in social enterprises?

This research question aimed to identify the types of ICTs used by social entrepreneurs in South Africa in value creation activities in their organisations. The interview questions used for question one were derived from the literature review and the social entrepreneurship framework developed by Austin et al. (2006). The framework identified four key elements – opportunity, people, capital and context (external environment) – that should be aligned and optimised to pursue the organisation's social value proposition successfully.

A number of studies identified ICTs as a tool for social enterprises to address their challenges, cut costs and become more efficient, manage limited resources, and grow and achieve sustainability (Gopalkrishnan, 2013; Frączkiewicz-Wronka & Wronka-Pośpiech, 2014; Osorio-Gallego et al., 2016; Barba-Sanchez et al., 2018; Edquist & Henrekson, 2017).

In addition to the more "traditional" aspects of ICT – computers, mobile phones and the internet – Gopalkrishnan (2013) identified a number of other technology products and services that are available and can transform social enterprises. These are discussed in greater detail in Chapter 2 and include cloud computing, Infrastructure as a Service (IaaS), Platform as a Service (PaaS), Software as a Service (SaaS), crowdsourcing and micro-work organisations.

Social media was also identified as being interlinked with ICT (Mamö University, 2011), and can be used to manage internal relationships with staff and external relationships with customers (Trainor et al., 2013).

As discussed in Chapter 5, the research found that a wide range of ICT types are being used by social enterprises across the value-adding activities of the organisation, including SaaS, social media, PaaS, electronic payment solutions, online compliance services, free software, data storage services, e-learning platforms, email and instant messaging services. One plans to use crowdfunding platforms in the future in an attempt to access resources.

The analysis of the first research question will provide a summary of the types of ICT used by the interviewees in the four key elements identified by Austin et al. (2006). The findings will be discussed in more depth on the second research question.

6.3.1 Opportunities

Research question 1.1: What types of ICT are used to exploit opportunities?

In the context of the framework used in this research, opportunity was defined as "any activity requiring the investment of scarce resources in hopes of a future return" (Sahlman, 1996, p. 140 as quoted in Austin et al., 2006, p. 5). The use of ICTs were highlighted in the literature review as a tool to provide access to opportunities, including access to new markets and customers, providing services and/or products at lower costs, improving efficiencies and building scale (Ghabakhloo et al., 2011; Frączkiewicz-Wronka & Wronka-Pośpiech, 2014; Martin & Osberg, 2015; Gopalkrishnan, 2013).

These functions were largely confirmed by this research, with five out of the eight interviewees using ICT to achieve future goals. Different types of ICTs were used by the five respondents, notably business cloud services, also known as Platform as a Service (PaaS). Gopalkrishnan (2013) described cloud services as shared technology infrastructure that is accessible through the internet, available at a lower cost than the social enterprise investing in the infrastructure.

Three out of the eight social enterprises interviewed are technology-based businesses and therefore would qualify as a technology social venture (Ismail et al., 2012). Their business models are entirely built on some form of web-based platform that is used to achieve their social value proposition.

6.3.2 People

Research question 1.2: What types of ICT are used to manage people resources?

In the context of the framework used in this research, people were defined as individuals "who actively participate in the venture or who bring resources to the venture" (Sahlman,

1996, p. 140 as quoted in Austin et al., 2006, p. 5). This would include staff and volunteers.

Dees and Anderson (2003) highlighted that the legal structure chosen by a social enterprise might have an impact on its ability to access human resources. The argument was made that non-profit organisations may find it easier to find volunteers, while for-profit ventures may find it easier to attract skilled permanent staff (Dees & Anderson, 2003).

Two of the eight interviewees provide e-volunteering platforms as their primary business operation, linking volunteers from schools or corporates with projects that require assistance. However, none of the social entrepreneurs interviewed use e-volunteering platforms to access volunteers for their own enterprises.

Interestingly, three of the eight organisations use social media, notably LinkedIn, Facebook and personal blogs, as a recruiting tool or to expand their network. One respondent only recruits in their direct community and/or employ people they know well.

6.3.3 Capital
Research question 1.3: What types of ICT are used to access capital and manage finances?

Dees (1998) highlighted the need for social entrepreneurs to use scarce resources efficiently and attract funding and human resources at below-market rates to be sustainable. Austin et al. (2006) found that there is a distinct difference between social and commercial entrepreneurs in how economic and human resources are mobilised, justifying the distinction between these two crucial resources in the framework.

All eight interviewees confirmed that they make use of ICT for financial management purposes, with electronic payment solutions and business cloud services, in this case, cloud-based accounting software, dominating the technologies used. None of the interviewees currently use crowdsourcing platforms to help mobilise resources, indicating a potential opportunity for future exploitation. It may also be that crowdfunding platforms are not as developed or well-known yet in South Africa as they may be in the developed world.

6.3.4 Context
Research question 1.4: What types of ICT are used to manage context?

Context is defined as "those elements outside the control of the entrepreneur that will influence success or failure" (Sahlman, 1996, p. 140 as quoted in Austin et al., 2006, p. 5). External factors that may impact on the organisation include the macroeconomic environment, tax and regulatory environment, as well as the socio-political environment.

All eight interviewees confirmed that they use online compliance services to manage these external factors, particularly for tax and regulatory compliance. These online platforms include the South African Revenue Service's tax e-filing system, the eServices platform provided by the Companies and Intellectual Property Commission for legal compliance, such as submitting financial reports, and the department of social development to register non-profit organisations and submit annual reports. Three of the eight interviewees also use business cloud services, mainly accounting software, for tax compliance purposes, and web-based project management software Asana.

6.3.5 Social value proposition
Research question 1.5: What types of ICT are used to achieve the social value proposition?

The social value proposition of the enterprise is seen as the central focus of the enterprise; its reason for existence. This research aimed to understand what types of ICT social enterprises use to identify social need, achieve the social mission and measure social impact.

Austin et al. (2006) placed the social value proposition at the centre of the framework on which this research is based. Setting the social value proposition at the centre of the enterprise's activities is crucial as the entrepreneur can easily get distracted from its core mission over time as he/she gets caught up in organisational processes, such as the mobilisation of resources, Austin et al. (2006) explained.

In addition, it is also essential to achieve alignment between the organisation's internal processes and the external environment (Austin et al., 2006).

All eight of the interviewees indicated that they do make use of ICT to achieve their social mission. Dominant ICTs are social media, Google, business cloud services and internet-based instant messaging platform WhatsApp.

6.4 Research question 2

How are ICTs used to create social and economic value in social enterprises?

This research question explored the role of ICTs in creating social and economic value in social enterprises in South Africa. The interview questions used in question two were also derived from the literature review and the social entrepreneurship framework developed by Austin et al. (2006). As discussed in Section 6.3, the framework identified four key elements – opportunity, people, capital and context (external environment) – that should be aligned and optimised to pursue the organisation's social value proposition successfully.

Various studies have highlighted the ability of ICTs to have a demonstrable positive impact on business productivity and competitiveness, the ability to empower people and deliver change, and to provide access to opportunities (Ghabakhloo et al., 2011; Frączkiewicz-Wronka & Wronka-Pośpiech, 2014; Martin & Osberg (2015). It can create access to new markets, attract investments, and can be used to develop new products and services (Osorio-Gallego et al., 2016). A study of ICT investment in the Swedish non-farm business sector also found a significant positive relationship between ICT investment and productivity and value-add in business (Edquist & Henrekson, 2017).

However, many challenges have been identified that limit the adoption of ICTs by social entrepreneurs. These include cost, the limited awareness of open-source software, and a lack of access to reliable, timely data to improve decision-making (Rahman & Smit, 2014).

Warnecke (2017, p. 306) highlighted that technology plays a vital role in economic development processes, "shaping the flow of goods, services, capital, and people, as well as the way resources are combined to 'do' and 'make'". In this question, the interviewees explain how they use technology to 'do' the various value-adding activities they undertake in pursuit of the social value proposition.

6.4.1 Opportunities

Research question 2.1: How are ICTs used to exploit opportunities?

In the context of the framework used in this research, opportunity was defined as "any activity requiring the investment of scarce resources in hopes of a future return" (Sahlman, 1996, p. 140 as quoted in Austin et al., 2006, p. 5). The use of ICTs were highlighted in the literature review as a tool to provide access to opportunities, including access to new markets and customers, providing services and/or products at lower costs, improving efficiencies and building scale (Ghabakhloo et al., 2011; Frączkiewicz-Wronka & Wronka-Pośpiech, 2014; Martin & Osberg, 2015; Gopalkrishnan, 2013).

This has been confirmed by the results detailed in Chapter 5, where the interviewees identified numerous ways in which ICTs are used to exploit opportunities and achieve future goals. The three technology social ventures, which have built their businesses on web-based platforms, rely on ICT to scale the business. Others use ICT to improve accessibility to their customers and make their service offering more convenient. ICTs are also used to personalise services, enhance the efficiency of the organisation by digitising systems, access new markets, build the organisation's external network, and ensure privacy.

Barba-Sánchez et al. (2018), in a study of 871 SMEs in Spain, found a significant positive relationship between the intensity of ICT use and corporate performance generally, as well as on specific measures such as the differentiation of products and services, lowering costs, identifying new business opportunities, and improving productivity and income.

Most of the interviewees planned to increase their usage of ICT to exploit future opportunities. One interviewee intends to use a chatbot, accessible through cloud-based SaaS, to respond to clients in their home language. This will take away language as a barrier and open up new markets for the enterprise. Similarly, the use of an instant messaging platform like WhatsApp is seen as one way to improve the accessibility of the advisory service to anyone with a smartphone.

Technology is also being used to improve accessibility for disabled employees who may find it difficult to perform basic tasks which are then enabled through a biometric identification system, available at very low cost. Another interviewee has highlighted the planned future use of crowdfunding platforms to raise capital for a new building that is required to expand operations.

6.4.2 People

Research question 2.2: How are ICTs used to manage people resources?

In the context of the framework used in this research, people were defined as individuals "who actively participate in the venture or who bring resources to the venture" (Sahlman, 1996, p. 140 as quoted in Austin et al., 2006, p. 5). This would include staff and volunteers.

Frączkiewicz-Wronka and Wronka-Pośpiech (2014) identified access to resources, including human resources, as one of the key and ongoing challenges faced by social entrepreneurs.

Other human resources challenges were also highlighted – Rajendhiran & Silambarasan (2012) identified attracting skilled people and sustaining employees as two of the 14 critical challenges faced by social entrepreneurs surveyed in the Philippines. Wronka (2013) found in a study of 100 social enterprises in Poland that the motivation and commitment of employed people is one of the ten critical success factors for social entrepreneurs.

The social enterprises interviewed use ICT for performance management, recruitment, to improve efficiency, communication with employees and to build networks.

While Leonardi et al. (2013) found that social media can be a powerful people management tool, offering ways to interact with new employees, to share and manage knowledge, and to assist employees in building relationships and social capital, only three of the eight enterprises uses social media for recruitment purposes. No other human resources functions are performed via social media.

The emergence of e-volunteering platforms, which link social enterprises with free mentoring, research and communication services, was highlighted as one type of ICT that could benefit social entrepreneurs (Frączkiewicz-Wronka & Wronka-Pośpiech, 2014.) However, none of the interviewees uses e-volunteering platforms to access human resources, relying to a large extent on personal networks to get access to volunteers.

6.4.3 Capital

Research question 2.3: How are ICTs used to manage capital and financial resources?

Dees (1998) highlighted the need for social entrepreneurs to use scarce resources efficiently and attract funding and human resources at below-market rates to be sustainable.

A study of 100 social entrepreneurs in the Philippines highlighted accessing funding and earning a profit as two of the critical challenges facing social enterprises in that country. Wronka (2013) identified the keeping and distributing of accurate financial records as one of the ten critical success factors for social enterprises. Frączkiewicz-Wronka and Wronka-Pośpiech (2014) also highlighted the use of ICTs to improve transparency and the emergence of crowdfunding platforms to help mobilise financial resources for social entrepreneurs.

The interviewees most commonly used ICT to do financial management, for example bookkeeping, financial projections and making electronic payments and transfers. They also use ICT as a tool to improve their access to capital (or revenue, for example through offering product sales via a website), to improve accessibility, communication and convenience, and to improve personalisation and scalability. However, none highlighted the use of ICT to enhance transparency for funders or investors.

The specific types of ICTs used for financial management are largely chosen because of its affordability, which is seen as one of the essential factors driving ICT adoption (Rahman & Smith, 2014).

6.4.4 Context

Research question 2.4: How are ICTs used to manage the context?

Context is defined as "those elements outside the control of the entrepreneur that will influence success or failure" (Sahlman, 1996, p. 140 as quoted in Austin et al., 2006, p. 5). External factors that may impact on the organisation include the macroeconomic environment, tax and regulatory environment, as well as the socio-political environment.

Various studies have highlighted that the environment matters in which a social enterprise operates (Littlewood & Holt, 2015; Rivera-Santos et al., 2015; Karanda & Toledano, 2012; Urban, 2015). Puumalainen et al. (2015) also found that institutional and cultural contexts have an impact on social entrepreneurship. Higher levels of economic and social development were found to drive higher levels of social entrepreneurial activity, while social entrepreneurs are also likely to be more prevalent in societies where there is a low power distance, in other words where people strive to "equalize the distribution of power and demand justification for inequalities of power" (Puumalainen et al., 2015, p. 284).

The legal structure of a social entrepreneurial venture has an impact on the way the business is organised and managed, how performance is measured and its tax and regulatory requirements (Dees & Anderson, 2003; Steinman, 2010; Claeyé, 2017). This structure also has an impact on regulatory and tax compliance, interaction with funders, etc.

This research found that ICTs are mostly used for managing compliance with various regulatory requirements. The interviewees mainly made use of the multiple institutions' online compliance services to for example submit tax returns, file annual reports and make payments. ICTs are also used to improve the efficiency of the compliance process, as well as for financial management purposes.

Most of the interviewees expressed difficulty navigating the external landscape, either due to complexity or due to limited resources. Some highlighted that the environment is overregulated, placing a significant administrative burden on the business.

6.4.5 Social value proposition
Research question 2.5: How are ICTs used to achieve the social value proposition?

The social value proposition of the enterprise is seen as the central focus of the enterprise; its reason for existence. However, measuring the value created by a social enterprise remains a significant challenge (Dees, 1998, Urban & George, 2018). In contrast to a traditional entrepreneur, which uses financial metrics to measure success, social entrepreneurs pursue both social and financial sustainability goals (Warner et al., 2016).

As Dees (1998, p. 4) explained it: "How much value is created by reducing pollution in a given stream, by saving the spotted owl, or by providing companionship to the elderly? The calculations are not only hard, but also contentious. Even when improvements can be measured, it is often difficult to attribute them to a specific intervention."

Neck et al. (2009) also highlighted the need for social entrepreneurs to measure their performance beyond financial profit. Kickul and Lyons (2015) explained that there is increasing pressure on social entrepreneurs to measure and monetise social impact. This is especially true for organisations who want to access resources in an increasingly competitive environment, build credibility, improve performance and prove sustainability (Urban & George, 2018).

Frączkiewicz-Wronka and Wronka-Pośpiech (2014) found that ICTs can play an essential role in measuring and reporting on performance. To build trust, transparency and honesty about how social enterprises invest funds are required. ICTs offer an economical and effective tool for providing credible information to stakeholders, including beneficiaries, employees, donors, suppliers and clients (Frączkiewicz-Wronka and Wronka-Pośpiech (2014).

This is borne out by this research. Of all the elements described in Austin et al.'s (2006) framework, ICT is mostly used in achieving and measuring the social value proposition. ICTs are used in numerous ways: marketing, education and skills development, improving accessibility, measuring value creation, improving efficiency, enabling data-driven decision-making, allowing for collaboration, improving communication, building networks, allowing for personalisation of services, convenience, privacy and security, and recruitment.

Social media is most often used for marketing purposes. One underexplored area is using social media for customer relationship management too. Trainor et al. (2013) found in their study on organisations in the US that social media can help to manage relationships with customers, help better meet customer demands, and provide firms with significant customer relationships.

In summary, the data analysis showed ICTs are mostly used to manage resources and improve operations in social enterprises. Secondly, it helps to ensure sustainability and allows the enterprise to be more customer-centric. It is also used to increase social capital and navigate the regulatory landscape. Lastly, ICT is used for education and skills development.

This is in line with the literature, which has found that ICTs have a demonstrable positive impact on business productivity and competitiveness, the ability to empower people and deliver change, and to provide access to opportunities (Ghabakhloo et al., 2011; Frączkiewicz-Wronka & Wronka-Pośpiech, 2014; Martin & Osberg (2015).

6.5   Summary

The data analysis and results presented key findings and themes linked to the research questions and literature review. The discussion covers the use of technology in various value-creating areas of the organisations interviewed. These findings are presented in light of the literature available and the observations of the researcher.

While the research findings show that social entrepreneurs in South Africa use ICTs to improve and grow their organisations in many ways, Trainor et al.'s (2013) warning should be kept in mind that ICTs should not be seen as the magic bullet that will automatically provide organisations with a competitive advantage.

Frączkiewicz-Wronka and Wronka-Pośpiech (2014) also cautioned that technology should not be seen as offering a solution to every problem, but that it rather is a set of tools that offer new possibilities. Another challenge is the rapid and continuous evolution of technology, according to Barba-Sánchez et al. (2018).

Chapter 7: Conclusion

7.1   Introduction

The purpose of this research was to explore the types of ICT used by social enterprises in South Africa to achieve their value proposition, and to investigate how ICT creates social and economic value in social enterprises.

The main findings of the research were presented and analysed in Chapters 5 and 6. This chapter provides highlights from these findings, makes recommendations to social entrepreneurs.

 Recommendations made are based on the findings of this research report. The limitations of the research are highlighted to the reader, and recommendations for future research are made.

7.2   Main findings

This study focused on two main areas: the types of ICT used by social enterprises in South Africa to achieve their value proposition, and to investigate how ICT is used to create social and economic value in social enterprises.

7.2.1 Types of ICTs used in pursuit of the social value proposition

As discussed in Chapter 5 and 6, the research found that a wide range of ICTs is being used by social enterprises across the value-adding activities of the organisation, including SaaS, social media, PaaS, electronic payment solutions, online compliance services, data storage services, e-learning platforms, email and instant messaging services. The value-adding activities were identified as the management of people and financial resources, identifying opportunities, and managing the context, all to achieve the social value proposition (Austin et al., 2006).

Other types of ICTs, notably relatively new developments in the South African context such as crowdfunding platforms and chatbots that are powered by artificial intelligence,

are not yet used but are being considered by a minority of the enterprises interviewed. This highlights one of the challenges faced by social enterprises – the rapid and continuous evolution of technology, as underlined by Barba-Sánchez et al. (2018).

Three of the eight social ventures interviewed are technology-based businesses and therefore would qualify as a technology social venture (Ismail et al., 2012). Their business models are entirely built on some form of web-based platform, illustrating how technology is enabling products and services to be designed and delivered in an entirely new and differentiated way (Osorio-Gallego et al., 2016; Barba-Sánchez et al., 2018).

7.2.2 How ICTs are used in pursuit of the social value proposition

This research question explored the role of ICTs in creating social and economic value in social enterprises in South Africa. The four key value-creating elements discussed above – people and capital management, opportunity identification and exploitation, and management of the external environment – should all be aligned with the organisation's social value proposition (Austin et al., 2006).

Various studies have highlighted the ability of ICTs to have a demonstrable positive impact on business productivity and competitiveness, the ability to empower people and deliver change, providing access to new markets, attract investments, and to develop new products and services (Ghabakhloo et al., 2011; Martin & Osberg, 2015; Osorio-Gellego et al., 2016; Frączkiewicz-Wronka & Wronka-Pośpiech, 2014).

This research showed that ICTs are used in numerous ways by South African social enterprises, including for marketing, education and skills development, improving accessibility and efficiency, enabling data-driven decision-making, allowing for collaboration, improving communication, building networks, allowing for the personalisation of services, convenience, privacy and security, recruitment, and measuring value creation.

It also highlighted how room exists for ICTs to use to a greater extent to create value. One example is using social media, which is currently used primarily for marketing purposes, as a customer relationship management tool. Trainor et al. (2013) found in their study on organisations in the US that social media can help to manage relationships with customers, help better meet customer demands, and provide firms with significant customer relationships.

Another area that could be exploited further by South African social entrepreneurs is the use of social media to manage employees and other people resources, such as volunteers. Leonardi et al. (2013) found that social media can be a powerful people management tool, offering ways to interact with new employees, to share and manage knowledge, and to assist employees in building relationships and social capital.

E-volunteering platforms were also highlighted as one way to provide social entrepreneurs with free human resources (Frączkiewicz-Wronka & Wronka-Pośpiech, 2014). While two of the eight social enterprises interviewed for this study built their business models on providing an e-volunteering platform, none of the enterprises uses e-volunteering platforms to access human resources to assist with their own ventures, highlighting another potential area for future exploitation.

Another key finding is the way in which ICTs are used to navigate the external environment. Various studies highlighted that the environment matters in which a social enterprise operates (Littlewood & Holt, 2015; Rivera-Santos et al., 2015; Karanda & Toledano, 2012; Urban, 2015). Most of the interviewees expressed difficulty navigating the external landscape, either due to complexity or due to limited resources. Some of the interviewees also highlighted that the South African environment is overregulated, placing a significant administrative burden on the business.

The use of ICTs in the South African context remains focused on tax and regulatory compliance, according to the findings of this study. Other external factors that are highlighted by the literature that may have an impact on the operations of a social enterprise include the macroeconomic and socio-political environment – elements that haven't been highlighted by any of the interviewees in this study.

While the research findings show that social entrepreneurs in South Africa use ICTs to improve and grow their businesses in numerous ways, Trainor et al.'s (2013) warning should be kept in mind that ICTs should not be seen as the magic bullet that will automatically provide organisations with a competitive advantage.

7.3   Recommendations for social entrepreneurship stakeholders

It is clear that the South African government does not have the capacity to address the country's socio-economic challenges on its own, and therefore both traditional for-profit organisations, as well as social enterprises, have a role to play (Littlewood & Holt, 2015;

Urban, 2015). Traditional political and economic solutions "are no longer good enough to guarantee a minimal quality of life to a rising number of people", thereby driving the need for social entrepreneurship (Frączkiewicz-Wronka & Wronka-Pośpiech, 2014, p. 33).

All possible measures should therefore be taken to assist social entrepreneurs in achieving their social value proposition. As discussed in Section 7.4, there is limited knowledge of the challenges faced by social entrepreneurs in the South African context, which supportive networks should be put in place to help assure sustainability, and the factors limiting the adoption of ICTs to address some of these challenges faced by social entrepreneurs in the country.

One of the major challenges in the South African context is the lack of a clear and coherent legal framework for social entrepreneurs. Due to the resultant regulatory uncertainty around funding, social impact investors may be scared away from the sector in South Africa (Claeyé, 2017). Many social entrepreneurs in South Africa operate both non-profit and for-profit ventures to bypass some of the restrictions posed by both types of enterprises, adding to the administrative burden and costs of compliance.

Addressing the high regulatory and administrative burden, as well as the regulatory uncertainty faced by social entrepreneurs and their funders, were highlighted by interviewees as one way in which government can alleviate the challenges faced by these types of enterprises. Some of the social ventures also stressed their uncertainty over whether they comply with all the required rules and regulations, again underscoring the need to cut red tape.

7.4   Limitations of the research

As no official database or comprehensive database for social enterprises in South Africa exists (Urban & George, 2018), the country's social entrepreneurship population cannot be accurately defined. This means it was also not possible to determine a sampling frame.

Convenience, purposive and snowball sampling techniques were used to select entrepreneurs to interview. Convenience sampling is used when the researcher interviews those individuals that are easiest to access, while purposive sampling is used when the researcher uses self-judgement to select sample members based on specific

criteria to meet the research objectives (Saunders & Lewis, 2012). Snowball sampling takes place when respondents refer other social entrepreneurs that meet the necessary criteria to be part of the study, but were not part of the initial sample (Saunders & Lewis, 2012).

As highlighted in Chapter 4, the lack of an accurate population definition and limitations related to the sampling techniques used mean that the sample should not be seen as representative of all social entrepreneurs in South Africa. The small sample size, due to the time constraints involved, could also mean that not enough data was collected to reach data saturation.

The sample was geographically limited to urban areas in Gauteng, which is the wealthiest province in South Africa and the country's economic hub. Therefore the findings may also not apply to other geographical regions in South Africa.

The findings may, therefore, have low generalisability, particularly when it is also taken into account that social entrepreneurs operate very diverse organisations in many different sectors.

7.5   Suggestions for future research

Numerous areas have been highlighted for future research. These include:

- There is a need for more systematic research on social entrepreneurship in South Africa, particularly around the organisational forms that social entrepreneurs prefer and why (Claeyé, 2017). Mair et al. (2012) also recommended more work on the variety of models used by social entrepreneurs, when they combine non-profit and for-profit models, and under which conditions these models are successful in bringing about social change (p. 364).
- The survival rate of social ventures should be studied to identify the reasons behind failure and whether institutional changes can play a role to improve the sustainability of social enterprises (Claeyé, 2017).
- Various authors have highlighted the challenges around measuring the social impact of these enterprises (Dees, 1998; Claeyé, 2017; Urban & George, 2018; Neck et al., 2009). More research is required to determine the potential of social entrepreneurship in addressing broader socio-economic challenges in South Africa in particular, but also in developing countries more broadly.

- Phillips et al. (2015) highlighted the importance of networks – including partnerships with for example professional bodies, corporates, government agencies and research agencies – for social entrepreneurs to be successful. However, there has not been sufficient work done to make recommendations to governments on how to influence, support and facilitate the appropriate networks (Phillips et al., 2015).
- Puumalainen et al. (2015) found that the research on social entrepreneurship to date has primarily focused on case study research, meaning there is limited work on generalisable studies or studies that account for contextual differences across countries.

South Africa-specific research areas that could add value include:

- Rahman & Smith (2014) identified numerous factors preventing ICT adoption by social enterprises. Which factors are limiting ICT adoption by social entrepreneurs in South Africa;
- To what extent does the lack of a specific regulatory framework for social entrepreneurs hamper or encourage social entrepreneurs in South Africa; and
- How can technology be used to create more effective networks for social entrepreneurs in South Africa's rural and urban areas?

References

Austin, J., Stevenson, H., & Wei-Skillern, J. (2006). Social and commercial entrepreneurship: same, different, or both?. *Entrepreneurship theory and practice*, *30*(1), 1-22.

Barba-Sánchez, V., Calderón-Milán, M. J., & Atienza-Sahuquillo, C. (2018). A study of the value of ICT in improving corporate performance: a corporate competitiveness view. *Technological and Economic Development of Economy*, *24*(4), 1388-1407.

Chang, Y., & Hong, J. H. (2013). Does Technology Create Jobs?. SERI Quarterly, 6(3), 44.

Claeyé, F. (2017). A typology of social entrepreneuring models in South Africa. *Social Enterprise Journal*, *13*(4), 427-442.

Creswell, J. W. & Poth, C. N. (2016). Qualitative Inquiry and Research Design. Thousand Oaks: SAGE Publications.

Dees, J. G. (1998). The meaning of social entrepreneurship. Graduate School of Business, Stanford University.

Dees, J. G. (2001). The meaning of social entrepreneurship. Center for the Advancement of Social Entrepreneurship, Duke University's Fuqua School of Business.

Dees, J. G., & Anderson, B. B. (2003). For-profit social ventures. *International Journal of Entrepreneurship Education*, *2*(1), 1-26.

Dworkin, S. L. (2012). Sample size policy for qualitative studies using in-depth interviews.

Edquist, H., & Henrekson, M. (2017). Swedish lessons: How important are ICT and R&D to economic growth?. *Structural Change and Economic Dynamics*, *42*, 1-12.

Frączkiewicz-Wronka, A., & Wronka-Pośpiech, M. (2014). The use of ICT for achieving the objectives of the business model: social enterprise perspective. *Polish Journal of Management Studies*, *10*(2), 33-42.

Gentles, S. J., Charles, C., Ploeg, J., & McKibbon, K. (2015). Sampling in qualitative research: Insights from an overview of the methods literature. *The Qualitative Report*, *20*(11), 1772-1789.

Ghobakhloo, M., Sabouri, M. S., Hong, T. S., & Zulkifli, N. (2011). Information technology adoption in small and medium-sized enterprises; an appraisal of two decades literature. *interdisciplinary Journal of Research in Business*, *1*(7), 53-80.

Gopalkrishnan, S. S. (2013). A new resource for social entrepreneurs: Technology. *American Journal of Management*, *13*(1), 66.

Grünbaum, N. N. (2007). Identification of ambiguity in the case study research typology: what is a unit of analysis?. *Qualitative Market Research: an international journal*, *10*(1), 78-97.

IMF (2018). South Africa: 2018 Article IV Consultation-Press Release; Staff Report; and Statement by the Executive Director for South Africa. Retrieved on 27 October, 2018 from https://www.imf.org/en/Publications/CR/Issues/2018/07/30/South-Africa-2018-Article-IV-Consultation-Press-Release-Staff-Report-and-Statement-by-the-46132

Ismail, K., Sohel, M. H., & Ayuniza, U. N. (2012). Technology social venture: A new genréof social entrepreneurship?. *Procedia-Social and Behavioral Sciences*, *40*, 429-434.

Karanda, C., & Toledano, N. (2012). Social entrepreneurship in South Africa: a different narrative for a different context. *Social Enterprise Journal*, *8*(3), 201-215.

Kickul, J., & Lyons, T. S. (2015). Financing social enterprises. *Entrepreneurship Research Journal*, *5*(2), 83-85.

Kostetska, I., & Berezyak, I. (2014). Social entrepreneurship as an innovative solution mechanism of social problems of society. *Management Theory and Studies for Rural Business and Infrastructure Development*, *36*(3), 569-577.

Leonardi, P. M., Huysman, M., & Steinfield, C. (2013). Enterprise social media: Definition, history, and prospects for the study of social technologies in organizations. *Journal of Computer-Mediated Communication*, *19*(1), 1-19.

Littlewood, D., & Holt, D. (2015). Social entrepreneurship in South Africa: Exploring the influence of environment. *Business & Society*, 0007650315613293.

Mair, J., Battilana, J., & Cardenas, J. (2012). Organizing for society: A typology of social entrepreneuring models. *Journal of business ethics*, *111*(3), 353-373.

Modise, T. (2016). The Disruptors–Social Entrepreneurs reinventing business and society.

Malmö University (2011). ICT and Social Media: Definitional Issues and the Relationship. Retrieved on 4 November, 2018 from http://wpmu.mah.se/nmict11group1/2011/10/30/2-ict-and-social-media-definitional-issues-and-the-relationship/

Martin, R.L. & Osberg, S. (2007). Social entrepreneurship: The case for definition. Stanford Social Innovation Review, Spring, 29-39

Martin, R. L., & Osberg, S. R. (2015). Two keys to sustainable social enterprise. *Harvard Business Review*, *93*(5), 86-+.

McLellan, E., MacQueen, K. M., & Neidig, J. L. (2003). Beyond the qualitative interview: Data preparation and transcription. *Field methods*, *15*(1), 63-84.

National Planning Commission (2012). National Development Plan 2030 – Our Future. Retrieved on 6 May, 2018 from https://nationalplanningcommission.wordpress.com/the-national-development-plan/

Neck, H., Brush, C., & Allen, E. (2009). The landscape of social entrepreneurship. *Business horizons*, *52*(1), 13-19.

Osorio-Gallego, C. A., Londoño-Metaute, J. H., & López-Zapata, E. (2016). Analysis of factors that influence the ICT adoption by SMEs in Colombia. *Intangible Capital*, *12*(2), 666-732.

Phillips, W.; Lee, H.; James, P.; Ghobadian, A. And O'Regan, N. (2015). Social innovation and social entrepreneurship: A systematic review. Group & Organization Management, 40 (3). pp. 428-461

Puumalainen, K., Sjögrén, H., Syrjä, P., & Barraket, J. (2015). Comparing social entrepreneurship across nations: An exploratory study of institutional effects. *Canadian Journal of Administrative Sciences/Revue Canadienne des Sciences de l'Administration*, *32*(4), 276-287.

Rahman, R., & Smith, L. (2014). Social Innovation Mapping: Social Entrepreneurs Changing Lives through ICT. Retrieved on 6 May, 2018 from https://www.ashoka.org/sites/www.ashoka.org/files/ICT-Based-Social-Impact_09-2014-report.pdf

Rajendhiran, N., Silambarasan, C. (2012). Challenges in Social Entrepreneurship. *International Conference on Literature, Management and Education*, (pp. 189-190). Manila

Rivera-Santos, M., Holt, D., Littlewood, D., & Kolk, A. (2015). Social entrepreneurship in sub-Saharan Africa. *The Academy of Management Perspectives*, *29*(1), 72-91.

Sahlman, W.A. (1996). Some thoughts on business plans. In W.A. Sahlman, H. Stevenson, M.J. Roberts, & A.V. Bhide (Eds), The entrepreneurial venture (pp. 138-176). Boston: Harvard Business School Press.

Santos, F. M. (2009). A positive theory of social entrepreneurship. *Journal of business ethics*, *111*(3), 335-351.

Saunders, M., & Lewis, P. (2012) Doing Research in Business and Management, Harlow: FT Prentice Hall

Saunders, M., Lewis, P., & Thornhill, A. (2009). Research Methods for Business Students (5th edition), Harlow: FT Prentice Hall

Southern, A., & Tilley, F. (2000). Small firms and information and communication technologies (ICTs): toward a typology of ICTs usage. *New technology, work and employment*, *15*(2), 138-154.

Statistics South Africa (2018). Quarterly Labour Force Survey. Quarter 2: 2018. Retrieved on 27 October, 2018 from http://www.statssa.gov.za/publications/P0211/P02112ndQuarter2018.pdf

Steinman, S. (2010). *An exploratory study into factors influencing an enabling environment for social enterprises in South Africa*. Pretoria: ILO.

Sulla, V., & Zikhali, P. (2018). *Overcoming Poverty and Inequality in South Africa: An Assessment of Drivers, Constraints and Opportunities (English)*. Washington, D.C.. World Bank Group. Retrieved on 6 May, 2018 from http://documents.worldbank.org/curated/en/530481521735906534/Overcoming-Poverty-and-Inequality-in-South-Africa-An-Assessment-of-Drivers-Constraints-and-Opportunities

Terjesen, S., Lepoutre, J., Justo, R. & Bosma, B. (2009). Global Entrepreneurship Monitor. 2009 Report on Social Entrepreneurship. Retrieved on 6 May, 2018 from file:///C:/Users/maraisma/Downloads/1349344229GEM_2009_Social_Entrepreneurship_Report.pdf

Thorgren, S., & Omorede, A. (2018). Passionate leaders in social entrepreneurship: Exploring an African context. *Business & Society*, *57*(3), 481-524.

Thornton, J. P., Lohrke, F. T., & Gonas, J. (2015). The social entrepreneur as trailblazer: A role for the social enterprise in a market economy.

Trainor, K. J., Andzulis, J. M., Rapp, A., & Agnihotri, R. (2013). Social media technology usage and customer relationship performance: A capabilities-based examination of social CRM. *Journal of Business Research*, *67*(6), 1201-1208.

Urban, B. (2015). An exploratory study on outcomes of social enterprises In South Africa. *Journal of Enterprising Culture*, *23*(02), 271-297.

Urban, B., & George, J. (2018). An empirical study on measures relating to impact investing in South Africa. *International Journal of Sustainable Economy*, *10*(1), 61-77.

Warnecke, T. (2017). Social innovation, gender, and technology: Bridging the resource gap. *Journal of Economic Issues*, *51*(2), 305-314.

Warner, K. D., Lieberman, A., & Roussos, P. (2016). Ignatian pedagogy for social entrepreneurship: twelve years helping 500 social and environmental entrepreneurs validates the GSBI methodology. *Journal of technology management & innovation*, *11*(1), 80-85.

Wronka, M. (2013). Analyzing the success of social enterprises–critical success factors perspective. In Active Citizenship by Knowledge Management & Innovation: Proceedings of the Management, Knowledge and Learning International Conference (pp. 593-605).

Appendix A – Interview schedule

Introduction

My name is Marica Marais and I am a student at the Gordon Institute of Business Science. I am conducting academic research as required for partial fulfilment of completing a Master's in Business Administration. Thank you for your time and agreeing to participate in this interview which aims to collect date for my research. The purpose of my research is to explore the role that the use of ICT plays in the value creation of social enterprises in South Africa.

Semi-structured interview questions

Background information:

Age and description of the enterprise and the social problem it is aiming to address

Using the framework proposed by Austin et al. (2006) as a basis (see Figure 5), the following questions will be asked:

1. Please describe the types of ICT (if any) used in your social enterprise to identify and measure outcomes related to the enterprise's social value proposition and the role the use of ICT plays in this area.

    (Probe:

    How do you identify social need?

    What is your social mission?

    How do you achieve your social mission?

    How do you measure the social impact your enterprise has?)

2. Please describe the types of ICT (if any) used in your social enterprise to identify and exploit opportunities and the role the use of ICT plays in this area.

    (Probe:

    What is the desired future state of the enterprise and how does ICT help identify and achieve this?

    How do you plan to address social needs more effectively in the future through the use of ICT?)

3. Please describe the types of ICT (if any) used in your social enterprise to access capital and the role the use of ICT plays in this area.

    (Probe:

    How does your enterprise fund operations/access capital?

    How do you manage financial resources?)

4. Please describe the types of ICT (if any) used in your social enterprise to access and manage human resources and the role the use of ICT plays in this area.

    (Probe:

    Does your enterprise employ people or rely on volunteers? How do you employ, manage and retain them?)

5. Please describe the types of ICT (if any) used in your social enterprise to manage external factors such as the regulatory environment, tax compliance, demographics, political environment, macro-economic conditions and the socio-cultural environment and the role the use of ICT plays in this area.

    (Probe:

    Are there any laws or social policies that impact your type of enterprise/industry specifically (e.g. education, environment, health and housing)?

How do you ensure you are tax compliant? (If non-profit, there are laws regulating

tax-exempt status or operations of non-profits)

Does your enterprise depend on donations or sponsorship and are there specific

policies that influence the amounts, etc.?)

Appendix B – Interview consent form

Informed consent letter

Dear participant

I am a MBA student at the Gordon Institute of Business Science, University of Pretoria, conducting research on the role of ICT in value creation in social enterprises in South Africa. The purpose of the research is to explore how social entrepreneurs make use of ICT in different areas of the business. Our interview is expected to last about an hour and will help us understand what types of ICT are used by social enterprises and how it creates value.

Your participation is voluntary and you can withdraw at any time without penalty. With your consent the interview will be recorded. All data will be reported without identifiers. If you have any concerns, please contact my supervisor or me. Our details are provided below.

Researcher name	Marica Marais
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Email	MthimunyeZ@gibs.co.za
Phone	+27 11 771 4000

Signature of participant: _____

Date: _____

Signature of researcher: _____

Date: _____

Appendix C – Code definitions

Table 16: Qualitative data code definitions and themes

Theme	Code	Definition
Customer centricity	Accessibility	Offering people access to various services through the use of ICT
	Convenience	Offering an easy to use solution through the use of ICT
	Recruitment	Recruiting new talent or skills through the use of ICT
	Measure value creation	Measuring social or economic through digital feedback and ratings as well as reporting
Education/ Skills development	Education / Skills development	Educational services offered through the use of ICT
Improve operations	Communication	Communication services available through the use of ICT
	Efficiency	Improved operational efficiency through the use of ICT
	Privacy and security	Data privacy and security through ICT
	Data-driven decision making	Decision-making enabled through data obtained from ICT
Manage resources	Personalisation	Offering personalised services through the use of ICT
	Financial management	Book-keeping, accounting, financial forecasts and electronic payments made possible by ICT
	Performance management	Staff performance management and goal setting through the use of ICT
Regulatory	Legal compliance	ICT assisting in managing legal and regulatory compliances
	Internal auditing	Making use of ICT to conduct internal auditing
Social capital	Building network	Making use of ICT to build a professional and social network
	Collaboration	Collaborating with various stakeholders to achieve a shared mission through the use of ICT
	Marketing	Advertising and creating brand awareness through the use of ICT
Sustainability	Scalability	ICT enabling the enterprise to scale their service offerings
	Increase capital	Revenue creation and capital increase through the use of ICT