Social capital and the process of social innovation: A case study of technology-based social enterprises in South Africa

A research report submitted to the Faculty of Commerce, Law and Management, University of Witwatersrand, in partial fulfilment of the requirements for the degree of Master of Management in Entrepreneurship and New Venture Creation

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ABSTRACT

The research is based on a study of South African social enterprises that are leveraging technological innovations to deliver social, environmental and economical solutions in an efficient and sustainable manner. Previous studies have shown that social capital is crucial for the success of any innovation. However, most of the research has focused on the influence of social capital on innovations by commercial enterprises and for economic development. Therefore, the study seeks to fill this gap by exploring how social capital influences the process of social innovation of technology-based social enterprises. This it achieves by investigating the dimensions of social capital as well as the stages in the process of social innovation. In effect, the study demonstrates the connection between the concepts of social capital and social innovation.

A qualitative case study approach was undertaken with the founders of four South African technology-based social enterprises from Tongaat, KwaZulu Natal, Muizenberg, Western Cape, Braamfontein, Johannesburg and Stellenbosch, Cape Town. The empirical data was collected through face-to-face and telephonic in-depth interviews using a semi-structured questionnaire. The data was then analysed using an inductive process.

The findings of the study revealed that all the technology-based social enterprises are innovative. However, it was unclear how two of the innovations enhanced society's capacity to act. Even though it was not deliberate, it was found that all the social enterprises followed each stage of the process of social innovation in a linear fashion. In regards to the relationship between social capital and the innovation process, structural social capital was found to be the most important dimension for generating ideas. As the innovation progressed to the development, prototyping and piloting stage the structural and relational social capital dimensions became played a more significant role. Furthermore, the relational and cognitive social capital dimensions were found to be more essential for scaling and evolving innovations, in comparison to the structural social capital dimension.

The importance of this study is that it highlights the importance for new technology-based social enterprises to create social networks. The success of technology-based social innovation depends on the participation of different actors in the social innovation process.

Keywords

Social capital, process of social innovation, technology-based social enterprises, South Africa

DECLARATION

I, Rebotile Matsimela, declare that this research is my own work except as indicated in the references and acknowledgements. It is submitted in partial fulfilment of the requirements for the degree of Master of Management in the Field of Entrepreneurship at the University of the Witwatersrand, Johannesburg. It has not been submitted before for any degree or examination in this or any other university.

Rebotile Matsimela

Signed at …………………………………………

On the ………………………………….............. day of …………………………………………… 2018

DEDICATION

To my father Apollos Phalane Matsimela, it is because of your unfailing love, friendship, wisdom, encouragement and faith in me that I embarked on this journey. I wish you were here to witness my successes. You are the greatest that ever was, I live to honour your memory. Thank you for being the best father a daughter could ever have, you have brought so much joy to my life.

"The roots of education are bitter but the fruit is sweet". - Aristotle

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To the Almighty God, thank You carrying me through to this journey. It is because of Your provision and grace that I have reached this milestone.

To my mother, Matheepe Violet Matsimela, thank you giving me a strong foundation. My roots are spreading.

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Last but not least, to my loving dog Duke, thank you for keeping me company day and night, rain or shine.

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LIST OF ABBREVIATIONS

GIBS:	Gordon Institute of Business Science
NESTA:	National Endowment for Science, Technology and for the Arts
NPO:	Not for Profit Organisation
OECD:	Organisation for Economic Cooperation and Development
TEPSIE:	The Theoretical, Empirical and Policy Foundations for Social Innovations in Europe
UNICEF:	United Nations Children's Fund
UCT:	University of Cape Town

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CHAPTER 1: INTRODUCTION

1.1. INTRODUCTION

The world over, there is growing interest in social entrepreneurship and social innovation as a means for addressing complex and grand development problems (Littlewood and Holt, 2015). The South African government has also recognised the potential of the social economy to drive sustainable economic growth through the creation of economic and social value (New Growth Path: Framework, 2012). With a growing population, limited resources and low economic growth, the government does not have the capacity to solve all the different and persistent problems it faces such as income disparity, high unemployment rates, high HIV/ AIDS infection rates and limitations in basic service provision (Littlewood *et al*, 2015). The combat of these issues requires urgent and effective solutions as conventional methods and structures have proven unsuccessful in resolving these problems. The consensus amongst practitioners, policy makers and the civic community is that we need widespread, sustainable solutions coupled with innovative business behaviour to deal with these issues.

Social entrepreneurship has emerged as a way of doing business that is typical of an entrepreneurial approach to delivering activities (OECD, 2015) that are associated with furthering a social, environmental and economic mission. It is seen as a practical solution to address government and traditional non-government organisations' operational and financial problems. In contrast to these NPOs, social enterprises earn a considerable proportion of their income from the sale of mission-related goods and services and are not reliant on donations and grants for their financial sustainability. This is one of the reasons that donors are increasingly putting pressure on NPOs to adopt more business-like practises, that is, to take risks, be proactive and find new and creative ways of operating.

Innovation is one of the key characteristics of social entrepreneurship (Scheiber, 2016). Innovation plays a key role in finding and implementing new solutions for meeting different social, economic and environmental needs. Innovations aimed at civil society have been important in relation to working conditions, education, community development, health and the environment, and are generally seen to extend and strengthen civil society. For instance, creative and high impact solutions such as online learning, micro-credit, fair trade, mobile money transfer and e-healthcare are improving lives, but more importantly, transforming societies. In the process of creating innovative solutions, such innovations are, in turn, profoundly changing beliefs, basic practices, resources and social power structures (Urama and Acheampong, 2013).

Effecting change in a sustainable way can only be achieved through the support and co-operation of society and the wider network, through multiple interrelationships built on trust and shared goals. Social capital is commonly described as the resources from social and personal relationships that enable people to pursue their common objectives more effectively (Basu, 2012). These relationships are crucial for entrepreneurial performance and to create innovative solutions to deal with social problems (Madhooshi and Samimi, 2015).

1.2. CONTEXT OF THE STUDY

The idea of social capital has been applied in a variety of contexts and to a wide range of social levels (Anderson and Jack, 2002). In the context of social entrepreneurship, the formation of social capital has been identified as an essential factor in the determination of whether and to what extent social entrepreneurs are able to solve and alleviate social challenges (Mair and Marti, 2005; Sharir and Lerner, 2006; Braunerhjelm and Hamilton, 2012). Social entrepreneurs depend heavily on the generosity of funders and volunteers, unlike their commercial counterparts. As such, social entrepreneurs have to create, manage and build a robust network of contacts and supporters in order to attract the financial resources, talent and co-operation they need to achieve their mission (Austin, Stevenson and Wei-Skillern, 2006). These networks depend on having a strong reputation, shared values and trust.

Social capital is not only critical for the attainment of resources but is also important for stimulating creativity and innovation. This is supported by social network theories which have found a positive and direct relationship between social capital and innovation. It has been suggested that social innovation prompts the efficiency and effectiveness of the innovation process (Barrutia, Echebarria and Lopez, 2010). According to Fleming and Marx (2006) networks of different sizes and structures can foster innovation by bringing different people together efficiently and in new ways. Other authors have demonstrated how social networks can encourage learning, collaboration and knowledge exchange (Murray, Caulier-Grice and Mulgan, 2010). This has been found to lead to the development of new ideas. Following this, some social networks can also aid in the subsequent diffusion of an idea to adopters (Fleming *et al*, 2006). Networks can also minimise the liability of newness, provide legitimacy and prevent failure. In this way, literature demonstrates that the process of creating and developing an innovation does not occur in isolation. It is invariably an accumulative and collaborative activity in which ideas are shared, tested, refined, developed and applied (Leadbeater, 2007). That is, it involves the combination of knowledge, participation and support from different actors who play a significant role (Wasai and Nouman, 2016) in its success.

1.3. PROBLEM STATEMENT

Many South African social entrepreneurs have created cutting-edge social innovations. Behind these new ideas and innovations are visionary individuals, whose passion, commitment, innovativeness and spirit of entrepreneurship lead them to devise and spread solutions to seemingly insurmountable social challenges (Praszkier, Nowak and Zablocka-Bursa, 2009). Unfortunately, not every great idea will see the light of day. Many efforts to implement social innovation have not reached their full potential due to a variety of challenges inherent in the implementation process (Dobele, 2015). In some cases, this is because of a lack of finance, poor skills and low levels of support from communities and the public and private sector (Soni, Sheikh and Karodi, 2014). Other concerns include barriers in terms of taking ideas from inception to social impact. Some point to the fact that social impact is difficult to measure (Hooghe and Stolle, 2003) whilst others have noted the challenge of how to scale social impact programs and innovations effectively and efficiently (Bloom and Smith, 2010).

One way for technology-based social enterprises to overcome these constraints is to develop and capitalise on social networks outside of the organisation to acquire knowledge, experience and resources. In an attempt to narrow the gap, business schools such as the Gordon Institute of Business Science and the University of Cape Town Graduate School through the Business Bertha Centre for Social Innovation and Entrepreneurship have launched centres that offer programs aimed at advancing the practice of social entrepreneurship and social innovation in Africa. Other initiatives include the South African Breweries Social Innovation Awards that support and invest in social innovations. Not only do these initiatives create an environment that supports the creation of social innovation, but more importantly, they expose social entrepreneurs to valuable contacts that can help them develop their social innovations and ultimately achieve their goal of social impact. These networks include customers, government departments, social capital investors, non-governmental organisations and corporations, to name a few.

The link between social capital, innovation process and social enterprises is conceptually underdeveloped (Dawson, Scott, Thompson and Preece, 2011). It is submitted that such an exploration of the extent of the influence of stakeholders on the innovation intentions and technological developments of social enterprises is necessary and crucial as the products and services produced by these enterprises have the potential for wide sustainable societal impact.

In light of the above assertion, this research study seeks to explore the following research problem:
How does social capital influence the social innovation process of technology-based social enterprises in South Africa?

1.4. RESEARCH QUESTIONS

The research paper will explore the following research questions:
1.4.1. Are technology-based social enterprises innovative?
1.4.2. Do technology-based social enterprises follow the innovation process?
1.4.3. In which way do the dimensions of social capital influence the social innovation process of technology-based social enterprises?

1.5. SIGNIFICANCE OF THE STUDY

Whilst the phenomenon of social innovation is well established in theory, there is a significant lack of research into innovation in social enterprises (Dawson *et al*, 2011). Research into the process of social innovation (Phillips, Lee, James and Ghobadian, 2015) is just as scant. What little research exists tends to focus on individual stages in the process, for instance the generation of ideas (Localiszky and Somosi, 2016) and the diffusion and scaling of social innovations (Dees, Anderson and Wei-Skillern, 2004; Bloom and Chatterji, 2009). Very few studies address the entire process of social innovation. Whilst these endeavours are useful, they fail to investigate common patterns amongst social enterprises. Furthermore, the majority of studies in this field provide anecdotal accounts drawn mostly from European and American case studies (Weerawardena and Sullivan Mort, 2012). Just as research into the social innovation process is almost non-existent (Davies, 2014), it is more so on the innovation process of technology-based social enterprises, both in international research and, especially within the South African context (Doherty, Haugh and Lyon, 2014).

Previous research has shown that social capital and social networks are crucial for the success of any innovation. Notwithstanding, the research on social capital has focused on business innovation (Casanueva and Gallego, 2010) as well as innovation at regional and country levels (Kaasa, 2007). Very little is known of social capital's influence on innovation from the perspective of the social entrepreneur (Habisch and Adaui, 2013,). It is only recently that researchers have begun to investigate the relationship between social capital and innovation in social enterprises (Dawson *et al*, 2011; Weber, Wallace and Tuschke, 2013;). Furthermore, most of the research considers social capital as a single dimension construct; rarely do studies address all three dimensions of social capital in one model (Weber *et al*, 2013).

It is these gaps in the knowledge that this research study seeks to contribute; that is, to better understand the relationship between the dimensions of social capital in each stage of the innovation process of technology-based social enterprises in South Africa. With the aim of achieving this goal I will review previous literature on social enterprises, social innovation, process of social innovation and social capital in order to develop a theoretical framework. I will then draw on case study research with four technology-based social enterprises.

This paper is organised into five sections. The first section introduces the research topic. The next section examines previous literature on the topics of social entrepreneurship, social enterprises and technology, social innovation and the process of social innovation, and lastly, social capital and its relationship to innovation. The third section describes the research methodology used in the study, which was based on qualitative semi-structured design. In the fourth section I will present the findings of the study. In the fifth section I will provide a discussion on the findings, the implications and present suggestions for future research.

1.6. DELIMITATIONS OF THE STUDY

This research study will be limited to technology-based social enterprises in South Africa. However, the study will not include:

- commercial enterprises that have a corporate social responsibility programme and
- government enterprises.

1.7. DEFINITION OF TERMS

These definitions have been formulated to clarify the understanding of these concepts as used in the study.

1.7.1. Social entrepreneurship

When defining social entrepreneurship, one must start with the word ‘entrepreneurship’. The word ‘social’ acts to modify entrepreneurship. For Martin and Osberg (2007), if the word ‘entrepreneurship’ does not have a clear meaning, then modifying it with “social” will not achieve much. Entrepreneurship is defined as “the resource, the process and state of being through and in which individuals utilise positive opportunities in the market by creating and growing new business firms” (Naude, 2013). Shane and Venkataraman (2000) state that entrepreneurship involves the relationship of two phenomena: the presence of lucrative opportunities and the presence of enterprising individuals.

In order to understand social entrepreneurship it is important to define the boundaries of what is meant by social. The term social has been used to describe different things such as social motivations or intentions, the social sector, social problems, social impact (Phills Jr, Deiglmeier and Miller, 2008) and social value. In analysing three cases of successful social entrepreneurship Mair *et al* (2004) sought to identify what the term ‘social’ meant in social entrepreneurship. The authors found all three cases to be ‘social’ in the sense that the founders were able to creatively combine resources to address a social problem and thereby alter existing social structures (Mair *et al*, 2004). The authors go on to include value creation in both social and economic aspects, however, emphasising that social value is the main focus while economic value creation is seen as an important condition to ensure financial viability.

A narrow definition views social entrepreneurship as entrepreneurial activity undertaken for a social purpose to change the way that social needs are addressed (Luke and Chu, 2013). They further describe it as a more innovative way of addressing social needs by developing new and creative solutions. Mort, Weerawardena and Carnagie (2002) offer a broad definition by acknowledging that “social entrepreneurship is a multi-dimensional construct that involves the expression of entrepreneurially virtuous behaviour to achieve the social mission, a coherent unity of purpose and action in the face of moral complexity, the ability to recognise social value creating opportunities and key decision-making characteristics of innovativeness, proactiveness and risk-taking”.

1.7.2. Social entrepreneur

There are a variety of definitions for the term ‘social entrepreneur’. However, similarly, each definition presents a comprehensive account of the essential elements that define a social entrepreneur. In some literature, the social entrepreneur is identified as the individual who founds the social venture (Littlewood *et al*, 2015). According to Dees (1998) these individuals “play the role of change agents in the social sector, by:

• adopting a mission to create and sustain social value (not just in private value),
• recognising and relentlessly pursuing new opportunities to serve that mission,
• engaging in a process of continuous innovation, adaptation, and learning,
• acting boldly without being limited by resources currently in hand, and
• exhibiting heightened accountability to the constituencies served and for the outcomes created.”

Abu-Saifan (2012) proposes the following definition:
“The social entrepreneur is a mission-driven individual who uses a set of entrepreneurial behaviour to deliver a social value to the less privileged, all through an entrepreneurially oriented entity that is financially independent, self-sufficient or sustainable.”

Venter and Urban (2015) assert that a social entrepreneur is a person who “identifies and pursues a social opportunity in the form of a wicked problem, and in so doing, attempts to present a lasting solution to this problem through the introduction of a social innovation which is generally underscored by a viable and sustainable business model in order to generate scalable and measurable impact and change.”

1.7.3. Technology-based social enterprise

The word “technology” comes from the Greek word technologia. It is the combination of the root word *techne* which refers to art, craft or technique (The World Book Dictionary, 2001), and the word *logos* which means the knowledge of, discipline of or systematic treatment of. Therefore, according to social science scholars, technology refers to the organisation of knowledge for the achievement of practical purposes as well as any product, tool, technique or process of doing or making, by which capability is extended (Luppicini, 2005).

The term social enterprise is a concept that involves business as an instrument for social development (Luke and Chu, 2013; Smith and Darko, 2014). Alter (2007) describes it as “any business venture created for a social purpose - mitigating or reducing a social problem or a market failure – and to generate social value while operating with the financial discipline, innovation and determination of a private sector business." Through the combination of the two concepts a new social venture results, referred to as a technology-based social enterprise. This unique type of social enterprise attempts to satisfy social, economic and environmental needs through technological innovation in a financially sustainable manner (Ismail, Sohel and Ayuniza, 2012).

1.7.4. Social innovation

A recent and encompassing definition of social innovation or innovation for social change is:

"Social innovation can be defined as the development and implementation of new ideas (products, services, processes and models) to meet social needs and create new social relationships or collaborations. It represents new responses to pressing social demands, which affect the process of social interactions. It is aimed at improving human wellbeing. Social innovations are innovations that are social in both their ends and their means. They are innovations that are not only good for society but also enhance individuals' capacity to act. They rely on the inventiveness of citizens, civil society organisations, local communities, businesses and public servants and services. They are an opportunity both for the public sector and for the market, so that the products and services better satisfy individual but also collective aspirations" (European Commission, 2013).

1.7.5. Process of social innovation

The innovation process includes "a set of activities that contribute to increase the capacity to produce new goods and services (product innovations) or to implement new forms of production (process innovations)" (Nieto, 2004). With social innovation being a process in and of itself, as such, "the social innovation process describes the entire process through which new responses to social needs are developed in order to deliver better social outcomes" (Jastrzebska, 2017).

1.7.6. Social capital

According to Westlund (2012), social capital is the "social networks and relations, and the norms and values that are generated, accumulated and spread through these networks". It impacts on the levels of trust and co-operation in social interractions. For Anderson and Jack (2002), social capital is embedded within networks of mutual acquaintances and based on mutual recognition. It may take various forms such as obligations arising within membership within a group or obtaining resources through the contacts within the network. Such links, according to the authors, can provide privileged information or access to opportunities. Generally speaking, therefore, social capital consists of various social relationships and refers to the resources that entrepreneurs can access through their personal networks (Chen and Zhou, 2017).

CHAPTER 2: LITERATURE REVIEW

2.1. INTRODUCTION

The aim of this chapter is to conduct a review of the existing literature on the topics of social entrepreneurship, social enterprises and technology, the process of social innovation and social capital. This review will be used to develop research questions that will explore the relationship between a technology-based social enterprise's social capital and its social innovation process. The chapter will draw on scholarly work from the fields of entrepreneurship, social sciences, innovation and psychology.

2.2. SOCIAL ENTREPRENEURSHIP

2.2.1. Definition of social entrepreneurship

Interest in social entrepreneurship has increased considerably over the past few years for a number of reasons. For one, there is something appealing about entrepreneurs and the stories of why and how they do what they do (Martin and Osberg, 2007). People are attracted to highly successful social entrepreneurs like Muhammad Yunus, founder of Grameen Bank, Wangari Maathai of the Green Belt Movement and Jeffrey Skoll, who founded eBay and the Skoll Foundation, for the same reasons they find business entrepreneurs like Elon Musk compelling. These extraordinary individuals create new products and services that revolutionise societies. Another reason is because of the perceived weaknesses and failures of the not for profit models, which are facing increasing competition for scarce private donations and grants.

Due to this growing interest, research into social entrepreneurship is now in a developing phase. As such, there are numerous contributions and overlaps within the various fields of sociology, economics, management and entrepreneurship. As a consequence, the available research is fuzzy and lacks a unifying paradigm (Hoogendoorn and Pennings, 2010). Although there is increasing global recognition of the contribution that social entrepreneurship makes to a country's social, economic, cultural and environmental wealth (Phillips *et al*, 2015), definitions of the term vary. For some authors it describes individuals who start social businesses whilst for others it denotes some kind of social process. For writers like Dees (1998) social entrepreneurship is said to describe a set of behaviours that are exceptional.

Cunha, Benneworth and Oliveira (2015) propose that social entrepreneurship refers "to an entrepreneur that creates something new, taking existing ways of doing things and creatively transforming them into a more effective way of meeting needs". Conversely, Bornstein and Davies (2010) conceives it as a process by which citizens build or transform institutions to advance solutions to social problems such as poverty and illiteracy, in order to make life better for many. Similarly, Haugh (2005) also implies that social entrepreneurship is the process of creating a social enterprise. With reference to other writers, the author submits that this process involves all activities associated with the perception of opportunity to create social value and the creation of social enterprises to pursue them. Providing a more general definition is the Global Entrepreneurship Monitor (2015) which regards social entrepreneurship "as any kind of activity, organisation or initiative that has a particularly social, environmental or community objective."

Notwithstanding the above discussion, three important points are worth noting. Firstly, common across all definitions is that the underlying drive for social entrepreneurship is to create social value rather than personal and shareholder wealth (Austin *et al*, 2006). This ties in with the second point which is that these definitions do not limit social entrepreneurship to organisations with social missions that make a profit or earn income to further and sustain their missions. Under these broad definitions, social goals can be pursued through a non-profit organisation, a non-profit with earned income, commercial business or through the public sector (Blount and Nunley, 2014). This is contrary, to the view held by Boschee and McClurg (2003) who maintain that "unless a non-profit organisation is generating earned revenue from its activities, it is not acting in an entrepreneurial manner". The third point is that the activity involved is characterised by innovation or the creation of something new rather than the replication of existing enterprises or practices (Ali Bahari, Kadir and Mhd Sarif, 2016). This may be in the form of a new approach or new process.

A study by Martin *et al*, (2007) identified social entrepreneurship as having three components: "it identifies 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; it identifies an opportunity in this 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 it forges 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 society at large".

2.3. SOCIAL ENTERPRISE

2.3.1. Definition of social enterprise

Worldwide, social enterprises are increasingly seen as a possible solution to address traditional non-government organisations' financial and operational problems and a bridge between civil society and government's inability to satisfy the social deficit (Urban, 2013). However, despite increasing popularity, the concept of a social enterprise remains ill-defined and non unanimous (Chell, 2007). There are a diversity of concepts that are used to describe entrepreneurial organisations with social aims: social entrepreneurship organisations (Braunerhjelm *et al*, 2012), social businesses (International Labour Organisation, 2011), enterprising non-profits (Dees, 1998) or entrepreneurial non-profit organisations (Kirkman, 2012). The term has become generic in that it describes a range of for-profit business entities with some type of mission benefitting society that is more typically associated with non-profit organisations (Blount and Nunley, 2014).

Against this background, there are varying attempts from different scholars to define a social enterprise. For example, Dees *et al*, 2003), describes a social enterprise as:

a. "legally incorporated for-profit entities, with one or more owners who have a formal right to control the firm and who are entitled to its residual earnings and net assets. For-profit forms include proprietorships, partnerships, corporations, limited liability companies and cooperatives.
b. explicitly designed to serve a social purpose while making a profit. Having a social purpose involves a commitment to creating value for a community or society rather than just wealth for the owners or personal satisfaction for customers".

This definition focuses on the commercial characteristics of the organisation. Also, by referring specifically to for-profit entities instead of incorporating all organisations that trade for a social purpose including non-profits, this definition appears to raise fundamental conceptual issues where a for-profit entity with a corporate social responsibility programme could qualify as a social enterprise.

In an attempt to create a home-grown definition during an International Labour Organisation Conference in 2009, Steinman (2010) described it in the manner that "a social enterprise's primary objective is to ameliorate social problems through a financially sustainable business model, where surpluses (if any) are principally reinvested for that purpose". This perspective is described as the mission-driven business approach (Defourney *et al*, 2012) or outcomes-based perspective. It emphasises the importance of social purpose and self-sufficiency. It describes a business model that focuses on delivering solutions to social problems.

Other approaches to the concept draw from entrepreneurship studies. For example, the Organisation for Economic Co-operation and Development (hereafter, OECD) refers to a social enterprise as "any private activity conducted in the private interest, organised with an entrepreneurial strategy, but whose main purpose is not the maximisation of profit but the attainment of certain economic and social goals, and which has the capacity for bringing innovative solutions to the problems of social exclusion and unemployment". A further useful definition is postulated by Boschee *et al*, (2003) who argue that a social enterprise is "any earned-income business or strategy undertaken by a non-profit distributing organisation to generate revenue in support of its charitable mission. Earned income consists of payments received in direct exchange for a product, service or a privilege".

2.3.2. Characteristics of a social enterprise

Different scholars have attempted to identify common characteristics that define the nature of a social enterprise, thus distinguishing it from a traditional entrepreneurial enterprise. Fury (2010) identified three defining elements for a social enterprise, namely:

a. a primary social purpose (has a clearly stated social purpose as its core objective);
b. uses a financially sustainable business model (has a realistic prospect of generating sufficient income to exceed costs, now or some time in the future); and
c. is accountable and transparent (has a mechanism for ensuring accountability to its beneficiaries).

Galera and Borzaga (2009) argue for a two condition assessment that entrepreneurial enterprises need to fulfil to be regarded as a social enterprise. The first condition is the social relevance of its activity. According to Ismail *et al*, (2012) social enterprises address social problems which are either ignored or inadequately met by traditional entrepreneurs or government. Furthermore, a social enterprise's foremost mission is to create sustainable social value for the public good. Social value denotes contributing to the welfare or well-being of a given community (Peredo and McLean, 2005). This differentiates them from purely commercial enterprises whose mission is to create economic profit for the founders and investors and may create social value as a byproduct.

The second condition is financial sustainability. Social enterprises require financial resources to fund complex and often low profit activities (Haugh, 2005) and as such it has to adopt some form of commercial activity to generate revenue (Doherty *et al*, 2014). In this way social enterprises have to become entrepreneurial in order to assure their survival. The idea that social enterprises have to make and distribute a profit has been challenged by many academics and practitioners. Consistent with Steinman and Fury, Nasruddin and Misaridin (2013), suggest that any profit made should not be distributed to investors but rather be reinvested in the organisation. In his definition of a social enterprise, Steinman concedes that a social enterprise excludes social entrepreneurs who use for-profit models but are not reinvesting their surpluses and at the same time also excludes social entrepreneurs who depend on grants. In contrast, some authors are of the view that there can be a distribution of profits, however, only to the extent that these constitute a surplus of its profits after its mission has been achieved and all operating expenses have been paid (Dees *et al*, 2003).

2.3.3. Types of social enterprises

According to Galera *et al*, (2009), the two conditions above can be satisfied in varying degrees by different types of enterprises. Currently South Africa does not have an official definition for a social enterprise (Fury, 2010; Watters, Willington, Shutte and Kruh, 2012), nor a dedicated legal structure or policy that deals specifically with social enterprises (Venter *et al*, 2015). Therefore, these enterprises take various legal forms under the Nonprofit Organisations Act (1997) and Companies Act (1973) to fulfil their social goals, such as, non-profit organisations including voluntary associations, trusts and companies that are established for a public purpose and whose income will not be distributed to shareholders or members.

Alternatively, they are formed as co-operatives, close corporations, private companies or section 21 public companies. It was observed by Austin *et al*, (2006) that the particular organisational form a social enterprise adopts is a decision based on which format would most effectively mobilise the resources needed to address the problem.

Depending on the legal structure elected, social enterprises can adopt either one of the following strategies:
Purely non-profit strategy. A purely non-profit enterprise is characterised by pro-social motives that drive the primary mission and emphasises social outcomes rather than the making of profits (Chell, 2007). To survive, these enterprises depend on grants and donor funding. On principle, these social enterprises do not believe in making a profit on their social activities. By foregoing profits which could have been reinvested in the enterprise, these enterprises have the challenge of ensuring their sustainability and scalability.

Non-profit with earned income strategy. The non-profit sector has traditionally relied on philanthropy, volunteerism and government grants for its survival. A non-profit with an earned income strategy performs a combination of social and commercial entrepreneurial activities to achieve self-sufficiency. Although primarily dependent on donations and grants, unlike NPOs, they also generate revenues and profits on their social activities that are used only to further improve the delivery of their social mission (Abu-Saifan, 2012). However, they are, in principle, prevented from distributing any surplus profits.

For-profit with mission-driven strategy. Dees and Anderson (2003) define these enterprises as legally incorporated for-profit entities with one or more owners who have the right to control the organisation and are entitled to its profits and assets. These social enterprises serve a social purpose while receiving grants and making a profit on their services to achieve sustainability. In this way, they operate on a mixed funding model. The authors contend that these social enterprises measure their success in terms of social impact.

Hybrid model. Hybrid social enterprises are a new form of organisation that blurs the boundaries between non-profit and for-profit models by adopting social and environmental issues like non-profits but generating revenues and profits to accomplish their mission like for-profit businesses (Haigh and Hoffman, 2012). These social enterprises operate predominantly as commercial businesses, however, with a primary focus on achieving their social mission. Like for profits with a mission driven strategy, they are called double bottom-line businesses (Townsend and Hart, 2008) because they operate on a mixed funding model where they accept grants and donations, and earn the large part of their revenues from the sale of their goods and services to the public and private markets as well as measure their success in terms of their profits.

Purely commercial model. A purely commercial enterprise is primarily focused on economic returns (Austin *et al*, 2006). According to Dees (1998), a social enterprise is commercial to the extent that it operates like a business in how it acquires its resources and distributes its goods and services.

These strategies, therefore, suggest that social enterprises can be placed on a spectrum from the purely philanthropic to the purely commercial (Chell, 2007).

Figure 1: *Social enterprise spectrum*

Source: Chell (2007)

2.3.4. Technology in social enterprises

Technology has the potential to make a major impact on human development in that it has created opportunities for societies to engage in social and economic developments. Notwithstanding, most of the innovation literature has focused on technological innovation for business to the exclusion of its role in creating and stimulating social change (Cunha *et al*, 2015). This is, in part, because social and technological innovation have long been viewed as distinct entities in discussions about the specifics of social innovations (Schubert, 2014). Writers like Robertson (1981) believe that social innovation must accompany technological innovation. The author regards science and technology as social phenomena and thus, come together in times of social need. This too is shared by Dawson *et al*, (2012) who state that innovations that bring about significant social change are those composed of both social and technical dimensions.

Based on these arguments, drawing a distinction between social and technological innovation seems restrictive and impractical. There are many instances of social innovations which are also technological innovations, for example, information technologies like Wikipedia that are making worldly information more readily accessible to larger audiences.

2.4. SOCIAL INNOVATION

2.4.1. The emergence of social innovation in South Africa

The concept of social innovation is not new to South Africa. It was first introduced into South African policy through the 1996 White Paper on Science and Technology, which was developed by the National Department of Arts, Culture, Science and Technology. The Paper sought to change the thinking about innovation in South Africa and restructure the country's National System of Innovation (Hart, Jacobs, Ramoroka, Mangqalaza, Mhula, Ngwenya and Letty, 2014) from that of the apartheid government which was driven by national objectives such as military dominance, food security and energy self-sufficiency. While much of the emphasis in the Paper was on technological innovation for products, services and processes, the Paper recognised the great national need for social innovation (Department of Arts, Culture, Science and Technology, 1996) as a mechanism for addressing issues of poverty and joblessness. Following the White Paper was the Ministerial Committee Report on Science, Technology and Innovation landscape in South Africa (Government Gazette, 2012). Similar to the White Paper, the Report does not provide a legal definition for the term social innovation, but rather refers to it as innovation for development.

In the New Growth Path Framework, the South African government continued to recognise the potential of the social economy to drive sustainable economic growth through the creation of economic and social value. This has led to the establishment of a committee that would be responsible for developing alternative policies and frameworks for social enterprises. Then in 2013 a White Paper was submitted to Treasury which accepted many of the recommendations and requested further research on others. However, despite these efforts there is still no formal policies on social enterprises (International Labour Organisation, 2016).

2.4.2. Definitions of social innovation

The role of innovation as one of the most essential sustainable competitive advantages cannot be denied. The need for innovation is not only relevant to commercial businesses but also to social enterprises. Research by the European Commission (2013) has shown that innovation can be a tool to help social enterprises achieve different targets:

- it can provide new, more efficient answers to meet growing social needs;
- it can provide local answers to complex social and societal challenges mobilising local actors;
- it is capable of integrating various stakeholders to tackle this jointly, through new ways of working together and involving users; and
- if applied well, it can deliver products and services using fewer resources; this is particularly important at a time of reduced public finances and shrinking private funds.

Whilst the concept of social innovation is not new in practice, it has only recently entered the social sciences (Cajaiba-Santana, 2014) and innovation studies (Cunha *et al*, 2015). Similar to the concept of a social enterprise, definitions of social innovation are abundant. For instance, a well cited definition is that of Mulgan (2007) who defines it as innovative activities and services that are motivated by the goal of meeting a social need and that are predominately diffused through organisations whose primary purposes are social. Whereas, for Howaldt *et al*, (2016) social innovation refers to “a new combination and/or a new configuration of social practices in certain areas of action or social contexts prompted by certain actors or constellations of actors in an intentional targeted manner with the goal of better satisfying or answering needs and problems than is possible on the basis of established practices”. To this they emphasise that an innovation is social to the extent that it is socially accepted and diffused throughout society or in certain societal sub-areas and it is institutionalised as a new practice or routine.

From a process point of view, Berzin, Pitt-Catsouphes and Peterson (2014) define social innovation as a process or outcome that leads to a positive and sustainable solution to a large-scale social issue. Similarly, seeking to provide a more holistic definition of social innovation, Ionescu (2015) defines it as “a process of internalising the intension of symmetries in the configuration of reality as a system determined by social actions of learning, sensitising, rallying and taking action, which lead to a social change in the sense of an improvement of the current situation and of increasing the quality of life for large groups of people, for society as a whole, and which has as effect the rejection of norms and/or existing social models, and adopting a new one". The author argues that this definition is not a functional definition of social innovation but rather one that allows for an existential understanding and objective interpretation of innovation regardless of who conducts the analysis and of the historical context within which the analysis is conducted.

The former definitions of social innovation were discussed by Mumford (2002) as two ends of a continuum (Bulut, Eren and Halac, 2013). At one end of the continuum, the author describes social innovation as the development of new ideas about social organisation or social relationships, that might involve the creation of new kinds of social institutions, new ideas about government or the development of new social movements. At the other end of the continuum, social innovation might involve the creation of new processes and procedures for structuring collaborative work, new social practices in a group or the development of new business practices. In this way, social innovations are concerned with managing people, relationships and social outcomes (Pinsent, 2012).

2.4.3. Challenges conceptualising social innovation

At this point attention will be brought to challenges regarding the conceptualisation of social innovation. The first challenge relates to whether social innovation requires social entrepreneurship. This question arose as a result of the entrepreneurship literature in which social entrepreneurship is rooted which emphasised opportunity identification, innovation and risk taking as key elements of entrepreneurship. Referring to Drucker (1985) who noted that innovation is central to entrepreneurship irrespective of the context, Luke and Chu (2013) deduced that innovation is fundamental to social entrepreneurship. As such, the concept of social innovation has increasingly been discussed in recent years in the context of social entrepreneurship.

This was discussed in the research report conducted by Caulier-Grice, Davies, Patrick and Norman (2012) on behalf of the European Commission. The authors establish that social innovation has been used by different writers to describe social entrepreneurship and the activities of social entrepreneurs. In distinguishing social entrepreneurship from social innovation they hold that social entrepreneurship refers to "the set of behaviours and attitudes of individuals involved in creating new social ventures, such as a willingness to take risk and finding creative ways of using underused assets". The authors stress that social innovation is a broader concept than social entrepreneurship even though they may overlap, for example, a social entrepreneur may develop a new and innovative way to tackle a social challenge.

A different perspective on this issue is the argument raised by Groot and Dankbaar (2014) that social innovations do not occur exclusively in social enterprises but also in traditional enterprises. On a comparison of social entrepreneurs and traditional entrepreneurs, the authors observed very little difference between the two but instead found many overlaps. Whilst some traditional businesses do not consider themselves social enterprises, their innovations were found to have considerable, though unintended, social impact, such as the social media giant Facebook. This is very different from the assertion by Luke and Chu (2013) that not all innovations are social innovations, for such innovations, like social media, social impact is a byproduct and not the primary intention. Another example is the United Nations Children's Fund (UNICEF), a social enterprise whose commercial activities are set up to generate the maximum profit for its charitable endeavours. Groot *et al* (2014) continues to argue that one should focus not on the intention of the innovation but should measure a social innovation on its actual social impact.

The second issue has to do with ascertaining social innovation's true meaning. Choi and Majumdar (2015) suggest that the lack of consistency in the meaning of social innovation may be a result of social innovation's use in diverse contexts and research fields since social innovation looks differently in different sectors and locations. Most of the literature on social innovation emerges not from scholars who theorise on social innovation (Choi and Majumdar, 2015) but from practitioners who are actively involved in solving practical problems such as the European Commission through research projects like the TEPSIE (theoretical, empirical and policy foundations for social innovation in Europe) and the Organisation for Economic Co-operation and Development (OECD). This, the authors argue, has resulted in the lack of a distinct and unified body of knowledge on social innovation.

This observation was also made in a study by Jessop, Moulaert and Hamdouch (2013) who assert that the difference between "innovation in general" accompanied by social innovation as a facilitator in innovation dynamics and 'social innovation' as a core dimension of genuine economic, social, cultural and environmental human progress has resulted in the blurring of the concept. The authors point out that this blurring is emphasised by the increased adoption by business of ideas, values, terms and labels, innovative practices and services initially developed in the social sector, hence the rise of initiatives such as corporate social responsibility and its diffusion in large private companies.

Another instance was presented by Ionescu (2015) who identifies the transfer of social innovation's common meaning to scientific and technological instances in business settings as one of the causes of the confusion. It is true that much of what we know about social innovation is mostly drawn from existing knowledge into business innovation and though some of the insights are relevant to the social sector and overlaps between the two have been recorded (Dobele, 2015), nevertheless, there are many fundamental differences. As such there should not be any confusion between social innovation as a discourse and the way that the business sector uses it as concept.

2.4.4. Characteristics of social innovation

In addition, social innovations display many unique characteristics, primarily because social enterprises have a mission with a double or triple bottom line: to achieve economic performance as well as economic and/or environmental performance (Tanimoto, 2012). The TEPSIE report (2012) suggests five core elements to define a practice as socially innovative (see Figure 2).

The first characteristic is that it meets a social need. Social innovations are explicitly designed to meet a recognised social need by creating value that is concerned with the quality of work and life, well-being, solidarity…. than with profits (Furmanska-Maruszak and Sudolska, 2016). This value is a shared value. Phills *et al*, (2008), are also of the view that this 'value' must result in the creation of benefits or reductions of costs for society in ways that go beyond profit making.

The second characteristic is novelty. Though the concept of newness applies to all definitions of innovation, social innovations do not have to be completely original or unique (European Commission, 2014). Social innovations can include well established and tested ideas (Adams and Hess, 2010). However, according to Khutrakun (2013), it is necessary that they are perceived as new in the context of the identified community or be applied in a new way. The author emphasises that this differentiates social innovations from ordinary development programs.

The third characteristic is that social innovations must enhance society's capacity to act. A good social innovation must inspire others to contribute to developing the idea and/or inspire them to develop their own version of the solution to fit other contexts (Pascual, van Klink and Grisales, 2011). It must empower beneficiaries by creating new roles and relationships, developing assets and capabilities and/or better use of assets and resources (TEPSIE report, 2012). This is important for creating appreciable social change. Thus, social innovations need to mobilise citizens to play an active part in innovation processes and in this way enhance society's innovative capacity. This requires new models of governance in favour of self-governance and political participation, allowing unexpected results through the involvement of stakeholders. This also requires interplay between actors, their networks, policy makers and the market, on the one hand, and processes in support of scaling up and diffusion on the other (Howaldt and Domanski, 2016).

The fourth characteristic refers to the concept of ideas to implementation. This characteristic distinguishes between invention which is the development of ideas and innovation, which refers to the implementation and application of ideas (Agostini, Marques and Bossle, 2016). Social innovation is concerned with the practical application or implementation of a new idea that needs to be or have the potential to be financially sustainable in the mid- to long term (Pisano, Lange and Berger, 2015).

The final characteristic is that social innovations should be more effective than existing solutions. This is highlighted in the definition provided by Phills, Deiglmeier and Miller (2008) which considers social innovation as "a novel solution to a social problem that is more effective, efficient, sustainable or just than existing solutions and for which the value created accrues primarily to society as a whole and not the individual". Effectiveness is understood as the capacity to satisfy social needs, improved use of means and resources, bringing benefits not only to society but also to other stakeholders (Jastrzebska, 2017). This means that social innovations should create a measurable improvement in terms of outcomes. Cajaiba-Santana (2014) contends that the role of social innovation is not just about solving a social problem, but is concerned with bringing about social change and proposing new alternatives and new social practices for social groups. In this way it creates changes in human structure and organisation thereby improving the living standards and promoting human resource development (Dobele, 2015).

Providing a different assessment of these features is Caulier-Grice *et al*, (2012) (see Figure 2) who identified eight (8) common features of social innovation.

1. Cross-sectoral. It occurs at the interfaces between sectors and involve actors from across sectors.
2. New relationships. Social innovations are developed ‘with’ and ‘by’ users and not delivered ‘to’ and ‘for’ them. They can be identified by the type of relationships they create with and between their beneficiaries.
3. Open and collaborative. Social innovations are often inclusive and engage a wide range of actors (Pisano *et al*, 2015).
4. Grassroots. This refers to distributed systems where innovation and initiative are dispersed to the periphery and connected by networks.
5. Pro-sumption and co-production. It refers to the blurred boundary between producers and consumers where consumers are increasingly becoming producers of their own goods and services.
6. Mutualism. This is the notion that individual and collective well-being is obtainable only by mutual dependence.
7. Developing capabilities and assets. This refers to a participatory approach enabling beneficiaries to meet needs over the longer term.
8. Better use of assets and resources. This is the recognition, exploitation and coordination of latent social assets. These assets should enable beneficiaries to meet their social needs over the longer term (Jastrzebska, 2017).

Figure 2: Main elements and features of the social innovation model

Source: TEPSIE report (2012) Caulier-Grice *et al*, (2012).

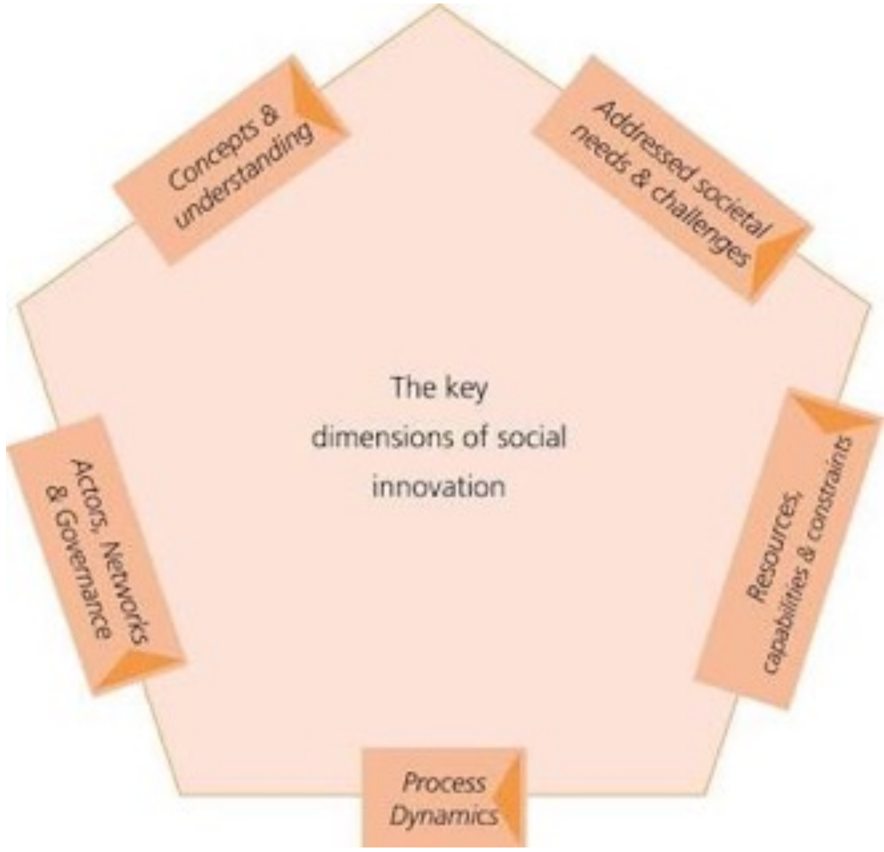
Research question: are technology-based social enterprises innovative?

2.4.5. Dimensions of social innovation

Howaldt *et al*, (2016) sets out five different dimensions of social innovation:

1. Concepts of social innovation including the relations to technology and business innovation.
2. Objectives and social demands, societal challenges and systematic changes that are addressed.
3. Actors, networks and governance, including the role of social entrepreneurship, networks, user involvement, of social change and development;
4. Process dynamics; and
5. Resources, capabilities and constraints including finance and regulations of finance industries, human resources and empowerment.

Figure 3: Dimensions of social innovation



Source: Howaldt, Domanski and Kaletka (2016).

For Neumeier (2017) social innovation has two dimensions, namely, a process dimension that mobilises actors and participation processes and second, an outcome dimension, for example, new and improved means of collaborative action and new governance structures. He submits that both dimensions are closely linked in that the outcome dimension is critical for the success of the process dimension.

On performing an expansive literature review on the conceptualisation of social innovation, Choi and Majumdar (2015) proposed a three dimension framework that describes the characteristics of a social innovation. The first dimension is formalisation. This dimension refers to the various forms in which social innovations can manifest. According to the authors the specific properties and characteristics of social innovation can be classified and, therefore, formalised along a continuum. For example, socially innovative products such as an eco-friendly gas burner, being highly formalised, are placed on one end of the continuum. Intervention programs that are context dependent and less specific in terms of their service and product delivery are regarded as having less well-defined properties and formalisation in terms of characteristics. The authors place these on the opposite end of the continuum. Social innovations that are specific in their service and product offering, though requiring adjustments to different contexts, are located in the middle of the continuum.

The second dimension of social innovation is change processes. This dimension is concerned with the social structures and practices that social innovations give rise to in their different forms. To the Choi *et al*, (2015) "a social invention becomes a social innovation only when it effectively changes routines and practices as well as social structures such as power relations and regulative, normative and cultural structures". Not only does this dimension refer to systematic change brought upon by social innovation but also brings attention to the contexts, settings and their specific structures in which social innovation is rooted. This is evident with regards to the diffusion and replication of social innovations. According to the authors, the dimension of change processes highlights different existing structures and relations in various systems as barriers to the diffusion of social innovations such as structural inertia of organisations, resistance due to vested interests and existing power relations or rigid mental models.

The third dimension is the dimension of social outcomes. This dimension is concerned with the social value that results from systematic changes in routines, structures and practices. For the authors, the purpose and ends of social innovation is the creation of social value and this social value must result in the improvement of human and environmental well-being, for example, better access to health care services, education and improved opportunities for income generation.

2.4.6. Forms of social innovation

What can be interpreted from the above analysis is that social innovations occur in different forms. In testing the innovativeness of sixteen NPOs, the Bond report (2016) identified nine types of social innovations:

1. Funding model - how the work is financed;
2. Collaboration - how the organisation works with new or unusual partners to achieve more impact;
3. Organisational structure - how internal talents and resources to deliver impact are organised;

4. Process - how work is delivered more effectively;
5. Service and/or product - how programmes and initiatives that achieve more impact are developed;
6. Service/ product coordination - how complementary products and services that work together to deliver better outcomes are created;
7. Communication channel - how services/products are delivered to supporters and beneficiaries;
8. Brand - how the organisation and its services/products are represented; and
9. Engagement - how meaningful interactions with beneficiaries or supporters are fostered.

Literature differentiates social innovation from other forms of innovation. In their article, Adams *et al*, (2010) reiterates that social innovation is different from social action and other forms of innovation. According to the authors the main output of social innovation is its social benefit which adds value in ways which drive economic opportunity and performance. In contrast, social action seems to focus on the provision of welfare for the purpose of addressing social problems. The authors go on to outline features that they identify as differentiating social innovations from social action and economic innovation. These include:

1. Shifting focus from social needs to social assets;
2. Revaluing community as a social agent;
3. Seeing the community sector as an industry;
4. Focusing on the creation of skills and employment opportunities;
5. Building community enterprises; and
6. Establishing inter-sectoral partnerships (Adams *et al*, 2010).

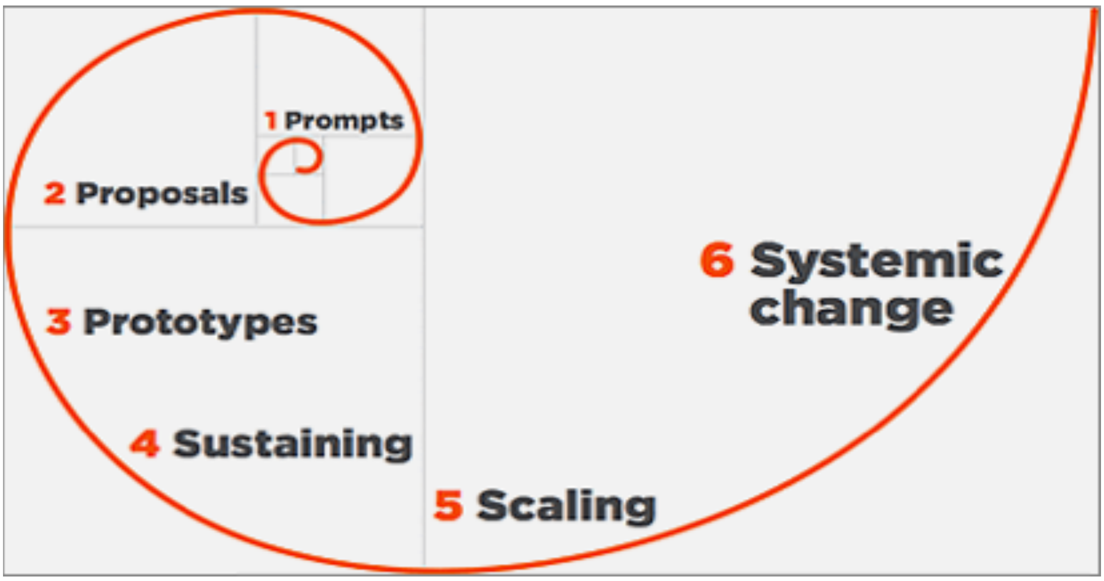
2.5. PROCESS OF SOCIAL INNOVATION

2.5.1. Stages in the process of social innovation

The literature on business innovation has offered many insights into activities and practices related to the conversion of new ideas into successful products and services (Magdalena, 2015). Nevertheless, there is limited explicit discussion within social innovation literature of all the stages in the social innovation process (Davies, 2012). Certainly, there are discussions on the differences between innovation and invention (Dawson and Daniel, 2010) and a plethora of literature on the diffusion of social innovations and the scaling of social impact as a distinctive stage within the process (Davies, Simon, Patrick and Norman, 2012). Notwithstanding, discussions on the stages are less unified, which has resulted in frameworks that vary between four stage models and nine stage frameworks.

For instance, Murray, Caulier-Grice and Mulgan (2010) have sought to develop a six stage process that takes ideas from inception to impact. The first stage in the process consists of prompts, inspirations and diagnosis. This involves finding the root cause of the problem and not just the symptoms. The second stage is concerned with proposals and ideas. This is the stage where ideas are generated. Following this stage is the stage where prototyping and piloting happens. At this stage ideas get tested in the market and are refined and developed to ensure that they meet their intended need. The fourth stage is focused on the sustainability of the social innovation. This is when the idea is integrated into the community and becomes everyday practice. The fifth stage pertains to scaling and diffusing the successful social innovation. In this stage the organisation has to consider strategies for growing and spreading the innovation beyond the immediate community such as organisational growth, licensing or franchising, amongst others. The final stage focuses on systematic change. According to the authors this is the ultimate goal of social innovation. Systematic change usually involves re-designing and introducing entire systems into the ecosystem such as new technologies, regulatory and fiscal frameworks.

Figure 3: Social innovation process spiral



Source: Murray, Caulier-Grice and Mulgan (2010).

Another model of social innovation provides a four stage process (European Commission, 2013). This framework consists of the ideas stage, the prototyping and piloting stage, the implementation stage and finally the scaling stage. For Hart *et al*, (2014) as well, the development of social innovation typically consists of four different activities, namely, adoption (the use of innovations), adaption (the improvement of innovations), diffusion (the sharing or transfer of innovations) and invention (the creation of new innovations). In a recent study, the Bond report (2016) developed a framework which includes seven stages: opportunities and challenges; generating ideas; developing and testing; making the case; delivering and implementation; growing and scaling; and changing systems.

Pue, Vandergeest and Breznitz (2016) present an alternative framework of the social innovation process, one which is the result of the interplay between an agentic engine and a structural engine. According to the authors the agentic engine "begins when (1) a social entrepreneur devises (2) a socially creative strategy to put into practice an idea that reconfigures society's approach to a given (3) social problem. The social entrepreneur is influenced by the (6) social environment and (7) existing social structures. The structural engine of social innovation pertains to whether the uptake of a socially creative strategy occurs across the (6) social environment and (7) social structures. This occurs through (4) emergence and (5) adoption, two halves of what we might term the social innovation diffusion cycle. If both engines of social innovation lead to the successful emergence and then adoption of a socially creative strategy, they result in two outcomes: (9) social change and a reconfiguration of the (3) social problem such that it, ideally, meets its (8) social goal".

For purposes of this research, we have adopted the framework by Mulgan (2006) whose social innovation process consists of four succinct elements:

1. Generating ideas by understanding needs and identifying potential solutions;
2. Developing, prototyping and piloting ideas;
3. Assessing, scaling up and diffusing good ideas; and
4. Learning and evolving.

2.5.1.1. Generation of ideas

The starting point for any social innovation process is the actor, the social change agent (Pue *et al*, 2016) or the social entrepreneur. Wolkowinski (2016) identifies the main actor in the process as the citizens, associations, existing businesses and start-ups that, alone or in collaboration with networks, respond to the needs of society. In studying the innovation processes of 34 Turkish Ashoka fellows, Tucker and Vural (2017) also identify the actor, that is, the individual, the team, or the organisation that translates the new ideas into social changes, as the most important component in the social innovation process. They hold that the actor affects their institutional context, which in turn affects the success of the actor in developing their social innovation. They characterise the actor as having attributes such as vision, strategic approach for problem solving behaviour, well developed mental models and sense-breaking tactics and personality traits such as risk-taking, innovativeness, creativity, proactiveness, and locus of control. These individuals or organisations proceed to identify a social need that has not been met or has been inadequately met by government or the social sector with some idea of how the need can be satisfied.

Literature acknowledges that social innovation is context dependent: it takes place in broader social, cultural, economic and environmental contexts (Pisano, Lange and Berger, 2015). It is in these contexts that social innovations are formulated and embedded. Sometimes social needs can appear obvious such as hunger, a lack of access to clean water or a social crises and, at other times they are not recognised or appear subtle, only articulated by unknown people through their everyday lived experiences such as the need to provide a safe and efficient heating alternative to fossil fuels. Mulgan (2007) writes that one of the most effective methods for creating social innovations is to start from the presumption that people are competent interpreters of their own lives and competent solvers of their own problems. It is essential that the social entrepreneur engages the community about what change they want and how this change must happen. This is a grassroots level approach.

2.5.5.2. Developing, prototyping and piloting ideas

A successful prompt will lead to proposals. This is the stage in the innovation process where new ideas are generated and new possible solutions on how to meet this need are developed. It involves taking the new product, service or process and turning it into a prototype which can be tested in practice. This stage implies risk-taking, experimentation, refinement and sometimes co-production (Wolkowinski, 2016). One of the well-known quotes in the innovation practice is to ‘fail early, fail quickly and fail often’. The sooner solutions are shared with recipients the better, in order to detect failures and possibilities for improvement (Pascual *et al*, 2011).

This stage is also concerned with the evaluation of the effectiveness of the solution in meeting the social need. This can be done through piloting the potential solution (Mulgan, 2006), and randomised controlled trials (Murray *et al*, 2010). It is also during this stage that the social entrepreneur will gain valuable insights into the viability of the ideas. This is crucial because it is where different income streams are identified that will ensure the financial sustainability of the institution that will carry the innovation forward (Murray *et al*, 2010; TEPSIE, 2012; Dainiene and Dagiliene, 2016). Furthermore, this stage is important as it will enable the social entrepreneur to refine the ideas as they go through trial and error.

2.5.5.3. Assessing, scaling up and diffusing good ideas

If the prototype or pilot is successful, then the next level that the social innovation has to achieve is sustainability. This stage in the process is concerned with spreading and growing the successful innovation. This is referred to as scaling. Scaling is crucial if the aim of a social innovation is to create impact. Bloom and Smith (2010) define scaling as “increasing the impact a social enterprise produces to better match the magnitude of the social need or problem it seeks to address”. It occurs when the solution proves itself in practise (Mulgan, 2006) and has now become everyday practice for the social enterprise (Bond, 2016) and the society it serves.

Social enterprises adopt various scaling strategies including organic growth, scaling up, replicating, adapting or franchising the solution so that the new approach makes a real impact and becomes part of the norm (European Commission, 2013). In a 2008 report, the National Endowment for Science, Technology and for the Arts (NESTA) (2008), outlines four conditions for scaling a social innovation, namely, (1) demand for innovation generated by real social needs, (2) a supply of workable (and communicable) ideas, (3) connecting the two with the right organisational form and (4) ongoing organisational ability to learn and adapt to the evolving external environment.

2.5.5.4. Learning and evolving

In this stage the innovations continue to change. While some innovations may be well-formed products or services that can be tested and replicated in new settings, others trigger a shift in existing resources and players that are unique to the place and time and as such may not take the shape of the product or service (Preskill and Beer, 2012). Learning and adaptation turns ideas into forms that may be very different from the expectations of the social entrepreneur. Experience may show unintended consequences or unexpected applications (Mulgan, 2007). According to NESTA (2007) scaling activities must be appropriate in the sense that there has to be effective adaptation of the innovation to the local context so that a feeling of local ownership is developed around the innovation. This is important for any social innovation to be successful.

2.5.5.5. Linearity patterns

What can be drawn from the literature is that the process of social innovation is not a linear approach but rather a dynamic process (Mulgan, 2006; Neumeier, 2017; Howaltd *et al*, 2014; Hart *et al*, 2015; Bond, 2016). Many of these stages overlap and may be undertaken in a different order. For instance, Neumeier (2017) suggests that the development of new ideas and adaptations of the solution may even continue long after an innovation has become sustainable or starts to scale. While this may seem counter-intuitive, the incidence of transferring social innovations from one context to another makes it possible. This is supported by the European Commission (2013), which highlights that, historically, many of the most important social innovations have happened as a result of random, accidental or organic processes resulting in new ideas.

In addition, the different stages involve the interactions of different actors, such as the affected community whose experiences influence how the social innovation takes shape in their circumstances and investors who provide funding to develop and scale the innovation.

The above discussion can be examined through the following research question:
Do technology-based social enterprises follow the social innovation process?

2.6. SOCIAL CAPITAL

2.6.1. Definition of social capital

The concept of social capital has gained traction in different disciplines and fields such as social entrepreneurship, organisational theory (Adler and Kwon, 2002), sociology, economic development studies (Woolcock and Narayan, 2000) and social innovation theory. The term social capital is not new (Sobel, 2002), however, there is still a lack of agreement on how to define and measure it (Doh and Zolnik, 2011). This may be due to the multi-dimensional nature of the concept. While numerous definitions of social capital exist in the literature, in this literature review I will concentrate on those considered relevant for entrepreneurship and innovation purposes at the individual level.

In an in-depth analysis of social capital, Adler and Kwon (2002) acknowledge that definitions of social capital vary amongst different theorists. They assert that definitions change depending on two categories of focus. Firstly, whether the focus is on the substance, the sources or the effects of social capital. In the second instance, it depends on whether the focus of theorists is on (1) the relations an individual maintains with other individuals, (2) the structure of relations among individuals within a collectivity or, (3) both types of linkages.

One set of studies equates trust with social capital. For instance, social capital is described as a collective good that takes the forms of trust, networks based on trust and norms (Landry, Amara and Lamari, 2000; Lehtonen, 2004). Trust has been the focus of many studies (Inkpen *et al*, 2000; Nikula, Kopoteva, Niska, Butkeviciene and Granberg, 2011). Trust is defined as one's expectation of another's reliability regarding obligations, cooperative behaviour and fairness in actions and negotiations (Thompson, 2018). It is based on social judgments together with an assessment of the costs, that is, the risk that the other party turns out to be untrustworthy (Inkpen *et al*, 2000). There are different types of trust:

- generalised-trust which is trust that includes most people and is most beneficial in contact with strangers (Hooghe and Stolle, 2003);
- ability-based trust is trust based on a person's skills, competencies and other abilities (Mayer, Davis and Schoorman, 1995);
- benevolence-based trust refers to the extent to which a trustee is believed to want to do good to the trustor (Mayer *et al*, 1995); and
- integrity-based trust is trust based on honesty, openness and concern (Terwel, 2009).

A number of scholars have adopted the definition that social capital refers to the "norms and networks that enable people to act collectively" (Woolcock, 1998; Woolcock and Narayan, 2000; Westlund *et al*, 2012). This definition is similar to the one presented by Fukuyama (2001; 2007) who regards social capital as the existence of a set of informal values or norms that are shared among members of a group that permits cooperation among them. According to Woolcock *et al*, (2000) this broad definition focuses on the sources, rather than the consequences of social capital, whilst recognising that important features of social capital like trust and reciprocity are developed in an iterative process. Seen this way, social capital is an asset inherent in social relations and networks. It is able to make certain outcomes possible which, in the absence of social capital, would not be possible, or would be more difficult. However, it cannot be owned or borrowed, it can only be produced and shared within the context of social interactions.

This is supported by Adler *et al*, (2002) who assert that the source of social capital lies in the structure and content of the entrepreneur's social relations. These resources inherent in the social structure are accessed and/or mobilised in purposive actions (Lin, 1999). This, Lin (1999) divides into three elements: resources embedded in a social structure; accessibility to such social resources by individuals; and use or mobilisation of such resources by individuals in purposive actions.

A different description of social capital is that of a process. "It is a process of creating a condition for the effective exchange of information and resources. It can only exist between people; accordingly it is a relational artefact which we can only observe as one or other of its dimensional manifestations" (Anderson *et al*, 2002). The authors argue that the developing social connections, the manifestations of connecting, could only be explained as the formation of social capital. Therefore, social capital exists in a social domain and manifests in social interactions (Anderson *et al*, 2002).

2.6.2. Benefits and drawbacks of social capital

Lin (1999) discusses three reasons of how social networks enhance the outcomes of actions. The first explanation is that it facilitates the flow of information. According to the author, in imperfect market situations, social networks can provide an individual with useful information about opportunities and choices otherwise not available. In the same way, these networks can alert an organisation or a community about the availability and interest of an otherwise unknown individual. The second explanation offered is that these social networks may exert influence on the individuals who play a critical role in decision-making. The third explanation is that social networks and their acknowledged relationship to the individual may be accepted by the organisation or community as "certification of the individual's social credentials". Social relations are supposed to reinforce identity and recognition, and in this way build trust. Being assured and recognised of one's worthiness as an individual or a member of a social group sharing similar interests provides emotional support amongst other things.

It is clear that, for Lin, social networks are the source of social capital and that information, influence and trust *per se* are not social capital. Instead, they are the channels through which individuals have access to social capital (Yang, 2007). Consistent with Lin's view is Cloete (2014) who is of the understanding that information and trust are a few of the resources that can be derived from participation in social networks. In other words, information and trust are not sources of social capital but rather its consequences in the sense of how social capital facilitates actions and interests. Moreover, the author argues that this does not mean social capital equals trust or networks but is rather related to the obligation of reciprocity that could be derived from the relations of trust and the information gained from participation in social networks.

An alternative perspective is offered by Dakhli and de Clercq (2004) who postulate that the central proposition in the social capital literature is that networks of relationships constitute or lead to resources that can be used for the good of the individual or the collective. In this way, there is the paradox that social capital is both a means (an enabler) and an end (a product of social networks). In a follow up qualitative study, Anderson, Park and Jack (2007) address two critiques of Dakhli *et al*, (2004). Firstly, they question the assertion that social capital can be both the resources and the method of unlocking resources. They argue that social capital is not a resource but instead an enabler of interactions which can result in the access of resources.

The second critique relates to the part of the statement, "for the good of the individual or the collective". According to the writers, this statement is problematic because 'social capital is also recognised to have negative effects". While many writers (Putman, 1993; Widen-Wulff and Ginman, 2004; Thompson, 2018) ascribe social networks as having positive effects, Mair and Marti (2005) warn that there are negative consequences to social capital, "social capital may also involve risks and less desirable effects". It has costs as well as benefits; social networks can be a liability as well as an asset. For example, Portes (1998) identified four negative consequences of social capital: exclusion of outsiders, excess claims on group members, restrictions on individual freedoms and downward levelling norms. Other negative effects mentioned include the exclusion of information and the reduction in the capacity for innovation (Schuller, 2001). From an emotional and economic point of view, some writers found that social capital can be time consuming, straining to mental health function and an impediment to acquiring or retaining employment (Hawkins *et al*, 2010).

2.6.3. Social capital, individual or community?

Debates exist over the question whether social capital is an individual or a community concept? In his critical essay of theorists on this subject, Sobel (2002) describes social capital as the circumstances in which individuals can use membership in groups and networks to secure benefits. He mentions Bourdieu, one of the fathers of social capital, who states that:

"social capital is an attribute of an individual in a context. One can acquire social capital through purposeful actions and can transform social capital into conventional economic gains. The ability to do so, however, depends on the nature of the social obligations, connections and networks available to you".

In this way Sobel (2002) agrees that social capital is an individual attribute which cannot be evaluated without the knowledge of the society in which the individual operates.

Referring to the seminal work of Putman (1993, 2000) who sees social capital as the features of social organisations, Yang (2007) writes that social capital refers to a community and not an individual. It is a concept seen to be embedded in social relations, without which there can be no social capital. The author maintains that the collective ownership of social capital is what distinguishes it from other types of capital such as financial capital and human capital, which are concerned with the individual. Accordingly, social capital is seen as both an individual and a collective good. A more diplomatic perspective was adopted by Westlund *et al*, (2012) who view social capital as a 'club good', that is, that social capital has the features of being an excludable good, limited to members or otherwise connected actors of a network or group. Those connected to the network have access to its social capital, while outsiders do not. This perspective is shared by Larson *et al*, (2004) who concedes that social capital is most often discussed as a public good that exists within the community but it is also an individual resource that members of the community create and draw upon.

2.6.4. Social capital at different levels

Drawing from the previous discussion it is evident that social capital has also been examined at multiple levels. From a social perspective this includes the individual level (the role of the social entrepreneur), organisational level (the role of social organisations) and the societal or macro level (social capital and the drivers of innovation) (Habish and Adaui, 2013).

At the individual level, social capital has been defined as the resources embedded in an individual's relationships with others. It represents the sum of advantages gained from a network of relationships over a long period of time, or through belonging to a group (Andrew and Klein, 2010). When applied in the context of social enterprises, the social entrepreneur is described as the person who changes the collective action situation of a relevant group in such a way that their social capital is either modified or extended in order to achieve mutual cooperation in the production of public goods (Habish *et al*, 2013). The emphasis here is on the actual or potential benefits that one receives from his or her formal or informal ties with others.

At the organisational level, social capital has been defined as the value to an organisation in terms of the relationships formed by its members for the purpose of engaging in collective action. Here social capital takes the form of a public good where members of an organisation can access the resources derived from the organisation's network without necessarily having participated in the development of those relationships (Inkpen and Tsang, 2005).

Lastly, the societal or macro level refers to the impact of social capital on the well-being of regions or societies. Here, social capital is seen as a collectively produced and owned entity, from which the whole community may benefit (van der Gaag *et al*, 2004).

2.6.5. Types of social capital

Casanueva and Gallego (2010) hold that there are two types of social capital: individual (personal) and organisational networks. Similarly, Chen and Zhou (2017) only differentiate between two types of social capital: internal and external social capital. Internal social capital refers to the relationships between entrepreneurs and individuals or groups within the organisation and external social capital refers to the entrepreneur's external relationships with other organisations and institutions. Commonly found in the literature on the topic is a distinction between three types of social capital, namely, bonding, bridging and linking social capital.

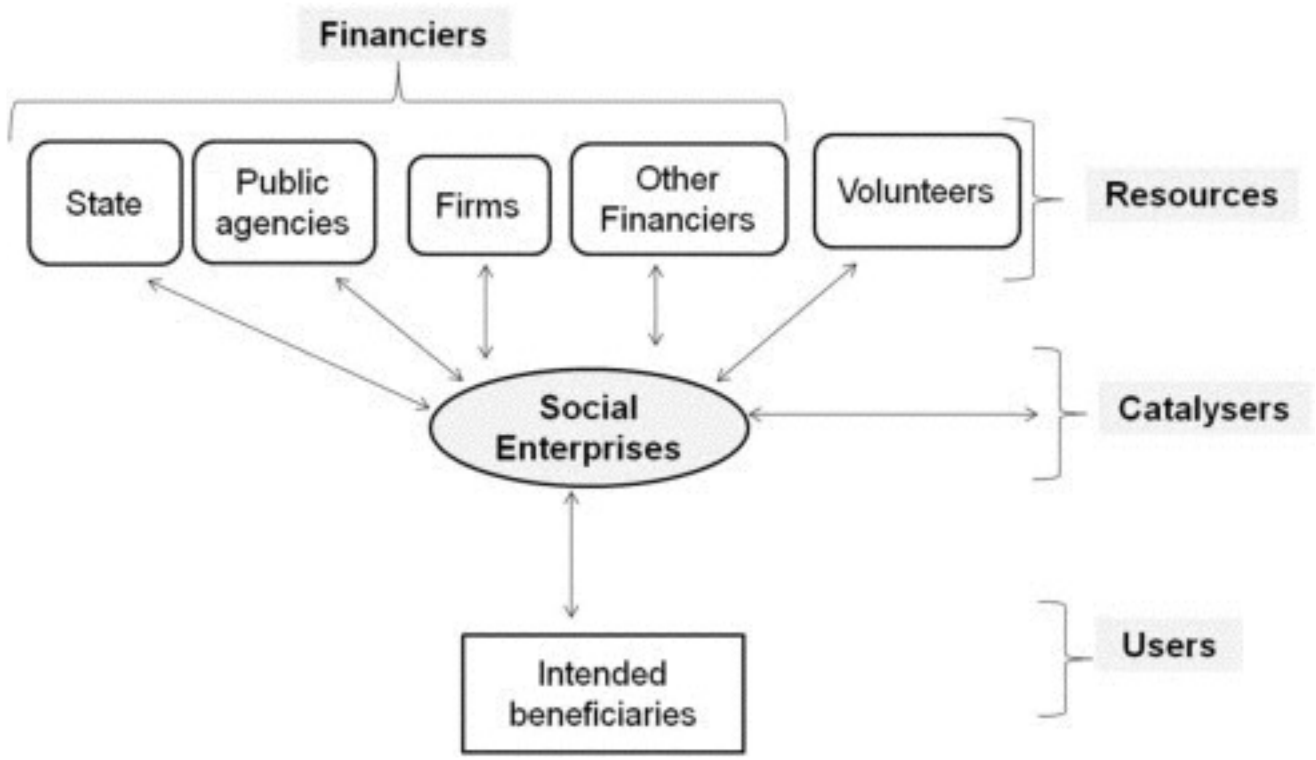
Bonding social capital. Bonding social capital refers to strong ties between people who are similar in terms of their demographic characteristics such as family members, neighbours, close friends and work colleagues (Grootaert, Narayan, Jones and Woolcock, 2004). Strong ties refer to partners with whom communication is frequent. It is regarded as inward looking. In other words, it brings together homogenous groups and facilitates economically disadvantaged individuals and groups to get by. It is often protective and exercises close membership and thus, good for supporting specific reciprocity and mobilising informal solidarity. However, it can also be dysfunctional, excluding information and reducing the capacity for innovation (Schuller, 2001).

Bridging social capital. Bridging social capital is what some authors refer to as cross-cutting ties (Larson, Harlan, Bolin, Hackett, Hope, Kirby, Nelson, Rex and Wolf, 2004). It refers to relationships amongst people who are different in a demonstrable fashion such as age, socio-economic status, race and education (Hawkins and Maurer, 2010). This type of social capital results when members of one group connect with members of other groups to seek access, support or to gain experience (Larson *et al*, 2004). It is also said to be essential for obtaining information that would otherwise be unavailable or costly to locate (Davidsson and Honig, 2003) and for the diffusion of social innovations (Nikula, Kopoteva, Niska, Butkeviciene and Granberg, 2011). It is outward looking in that it narrows the gap between different communities, exercises open membership and is therefore important to organised solidarity and to 'get ahead' (van Oorschot, Arts and Gelissen, 2006). Notwithstanding, these relationships are described as weak (Ecklinder-Frick, Ericsson and Hallen, 2012). Weak ties refer to partners with whom communication is more occasional (Fagerberg, 2004).

Linking social capital. Linking social capital refers to the extent to which individuals build relationships with individuals and institutions who have relative power over them (Hawkins *et al*, 2010). A key function of linking social capital is the capacity to leverage resources, ideas and information from formal institutions beyond the community (Lehtonen, 2004) such as public agencies, business interests, legal institutions and religious and political groups (Nikula *et al*, 2011).

Social capital permits the incorporation of different types of social capital by communities to achieve certain outcomes (Woolcock *et al,* 2000). To demonstrate this point, Adler *et al*, (2002) provide the example that the poor may have close-knit and intensive stock of bonding social capital (family, friends and neighbours) that they can leverage to survive but they lack the more extensive bridging social capital (colleagues, business partners) deployed by the non-poor to get ahead. Therefore, they assert that such an approach presents the argument that it is the different combinations of bonding and bridging social capital that are responsible for the range of outcomes in the example and incorporates a component in which combinations of these dimensions can change over time.

Figure: Sources of social capital



Source: Ramani, SadreGhazi and Gupta (2017).

2.6.6. Dimensions of social capital

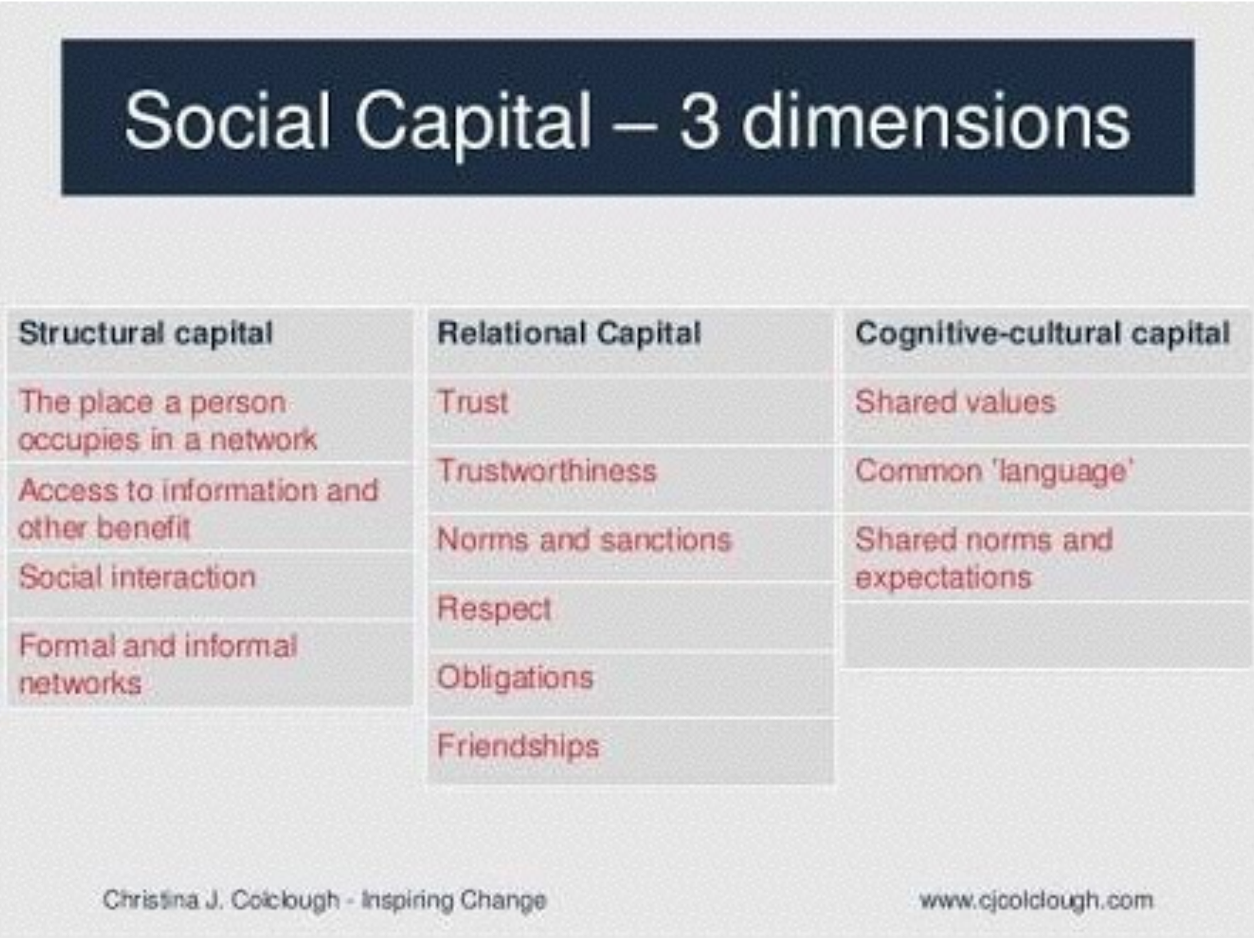
Different authors have identified different dimensions of social capital. Social capital dimensions identify those characteristics of social relationships that make available to individuals a certain amount of tangible and intangible resources, expectations and obligations necessary to coordinate and reach some benefit (Lollo, 2012). For example, embedded resources and network locations (Lin, 1999); networks, trust and civism (van Oorschot, 2006); and organisational memberships, social networks and support, reciprocity and trust, participation in civic institutions and activities and perceptions of the local area (Yang, 2007) are some of the dimensions identified by writers. Unlike other combinations of the dimensions, the dimensions of structural, relational and cognitive social capital appear to be well accepted in the literature (Landry *et al*, 2002; Moran, 2005; Liao and Welsch, 2005; Inkpen *et al*, 2005; Adriani, 2013). Moran (2005) argues that the effectiveness of one's social capital rests on more than just the structural embeddedness of one's network but the quality of one's relationships matters too. For purposes of this study I will only focus on these three dimensions.

Structural dimension. According to Mair *et al*, (2005) the structural dimension refers to the overall pattern of connections between individuals. It comprises of the location of an individual's contacts within the social structure of interaction. In particular, it is concerned with the quantity and diversity of networks involved, both formal and informal, and how these can be reached (Weber *et al*, 2013). Networks serve many functions, one of them is to enable, help and speed information exchange and lower the cost of information search (Kaasa, 2007). The structural dimension of social capital is important because it can determine whether and to what extent entrepreneurs are able to solve and alleviate social problems.

Relational dimension. The relational dimension refers to the extent to which people feel they can rely on relatives, neighbours, colleagues, acquaintances, key service providers and even strangers, either to assist them or at least do them no harm (Dudwick, Kuehnast, Jones and Woolcock, 2006). It focuses on the quality of social networks, especially those that can influence behaviour. It is concerned with knowledge, trust, fairness, respect and social norms which lead to obligation and expectation in order to create reciprocity (Cloete, 2014). These elements play an important role in initiating both social and business relationships, and even strategic alliances (Partanen, Moller, Westerlund, Rajala and Rajala, 2008). Although an entrepreneur may have access to several people who are potentially critical sources of information, personal experience and the quality of past interactions will often influence whom he or she is likely to approach and engage (Moran, 2005).

Cognitive dimension. Separate from the other two dimensions is the cognitive dimension. The concept was first introduced in the writings of Nahapiet and Ghoshal (1998). This dimension refers to those networks that provide shared representations, interpretations and systems of meaning among parties (Woodcock, 1998; Cloete, 2014). It focuses on the norms, values, attitudes and beliefs affecting interdependence (Landry *et al*, 2000). They are often manifested in shared language and codes and shared narratives. Shared language and code influence social relations in three identified ways. Firstly, language is a means by which people discuss and exchange information, ask questions and conduct business in society (Nahapiet *et al*, 1998). Secondly, language can influence perceptions. Lastly, language enhances combinations of different information from various parties to create knowledge. This extends to shared narratives which include myths, stories and metaphors shared by communities. According to Nahapiet *et al*, (1998) shared narratives can facilitate the exchange of practices and tacit experience between technicians and the community thus enabling the creation and transfer of new interpretations of events.

Figure 5: Dimensions of social capital



Source: Cochlough, C.J. (date unknown)

2.7. SOCIAL CAPITAL, INNOVATION PROCESS AND SOCIAL ENTERPRISES

The importance of a social enterprise's social capital for the process of social innovation has been the subject of interest for a few academics. As highlighted in the literature, social networks are considered as resources that can be used in the innovation process as they connect various heterogenous actors who provide complementary competencies and resources (Butzin, Howaldt, Weber and Schaper-Rinkel, 2014). The ability to develop a network of relationships and contacts has been described as a key capability and critical skill for entrepreneurs. According to Nikula *et al*, (2011) this is crucial because the success of any social innovation is dependent on the active participation and support of stakeholders at local, institutional and governmental levels. These contacts, to the extent that they provide the means for identifying opportunities, obtaining resources or facilitating the utilisation of other resources, are potential sources of competitive advantage (Nishantha and Kawamura, 2011). Forming relationships between different stakeholders within and outside of the social enterprise is critical to the success of these processes.

Landry *et al*, (2014) concedes that firms in communities with a large stock of social capital will always have a competitive advantage to the extent that social capital can help reduce malfeasance, induce reliable information to be volunteered, cause agreements to be honoured, enable employees to share tacit information and place negotiators on the same wave length.

Recently, Weber *et al*, (2013) investigated the influence of the dimensions of social capital (structural, relational and cognitive) on social innovation and social impact. In their analysis, the authors found that there is a positive relationship between each of the three dimensions of social capital and social innovation. How the different dimensions influence social innovation was not explained by the authors. However, Kaasa (2007) remarks that the different dimensions of social capital influence innovation in dissimilar ways.

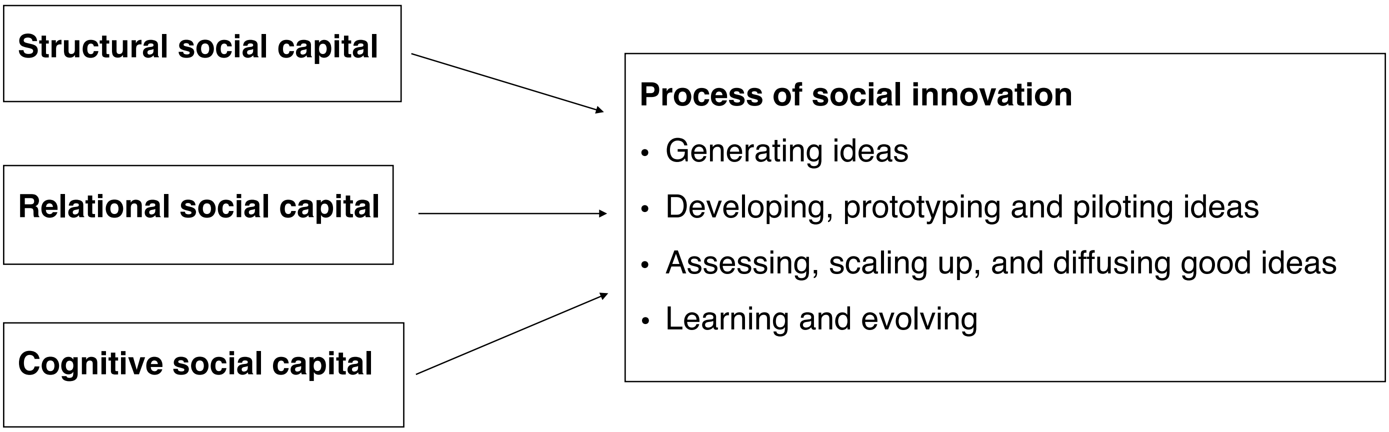
In examining the role of social capital among nascent entrepreneurs, Davidsson and Honig (2003) held that, during the ideation process, social capital exposes individuals to new and different ideas, world views and in effect providing them with a wider frame of reference, both supportive and nurturing to the potential idea. Bjork, Vincenzo, Magnusson and Mascia (2011) found that the size of an entrepreneur's network directly influenced the quality (that is, the level of novelty and usefulness) of ideas generated by that entrepreneur. According to Fountain (1998), the development of innovation happens as a result of broad-based multi-party cooperation. Focusing on the diffusion stage, Kaasa (2007) submits that networks not only facilitate the innovations themselves but also help to speed up the diffusion of innovations.

Given the positive effects of social capital on social innovation, I advance the following research question:
In which way do the dimensions of social capital influence the social innovation process of technology-based social enterprises?

2.8. CONCEPTUAL FRAMEWORK

The literature review can be described by way of a conceptual framework.

Figure 2: Framework of the study.



Source: The author (2017)

2.9. CONCLUSION

A preliminary literature review shows that there is a growing body of written work and focus amongst academics and practitioners on the dimensions of social capital and their influence on the stages of the social innovation process.

CHAPTER 3: RESEARCH METHODOLOGY

3.1. INTRODUCTION

This chapter will present the proposed research approach, data collection and analysis methods, ethical considerations as well as limitations of the study.

3.2. RESEARCH PARADIGM

As stated in the problem statement, the aim of this study is to explore how the dimensions of social capital influence the social innovation process of technology-based social enterprises in South Africa. The nature of the problem requires that I build on the interpretative research paradigm. The interpretative approach to research is concerned with understanding the world as it is from subjective experiences of individuals, suggesting that reality is socially constructed, that is, it is a human construct (Antwi and Hamza, 2015). The interpretative researcher tends to rely upon the participants' views of the situation being studied as well as recognises the impact of their own background and experiences on the research (Mackenzie and Knipe, 2006). Therefore, interpretive research does not predefine dependent or independent variables, does not set out to test hypotheses, but aims to produce an understanding of the social context of the phenomenon and the process whereby the phenomenon influences and is influenced by the social context (Rowlands, 2005).

The study follows an ontological approach. Ontology refers to our assumptions about how we see the world (Bhattacherjee, 2012). It is concerned with the nature of reality and what there is to know about the world (Ritchie, Lewis, Nicholls and Ormston, 2013).

3.3. RESEARCH DESIGN

3.3.1. Research approach

In order to obtain a comprehensive understanding of the subject matter a qualitative research design was found to be the most appropriate undertaking. Qualitative research produces holistic understandings of rich, contextual and generally unstructured, non-numeric data (Ponelis, 2015). This type of research is often described as a naturalist, interpretative approach, concerned with exploring phenomena “from the interior” and taking the perspectives and accounts of research participants as a starting point (Ritchie *et al*, 2013) and where the researcher does not attempt to manipulate the phenomenon of interest (Golafshani, 2003; Antwi and Hamza, 2015). This allows the researcher to find issues that are often missed by the scientific, more positivist enquiries (Hughes, 1997) such as subtleties and complexities. Qualitative research was found by Anderson *et al*, (2002) to be most suitable for exploring process.

The case study methodology was used in this study. A case study is defined as an in-depth study of a person, program, activity or event (Williams, 2007). This approach is said to be most suitable for network research (Eklinder-Frick *et al*, 2014) because case studies attempt to learn more about a little known or poorly understood situation. As shown earlier, this is the case for the study of social capital and social innovation in technology-based social enterprises. Hancock, Ockleford and Windridge (2009) propose that it seeks to answer questions about why people behave the way they do, how opinions and attitudes are formed, how people are affected by the events that go on around them and how and why cultures and practices have developed in the way they have.

In addition, how and why questions are regarded as exploratory and are appropriately investigated through case studies. This is because such questions deal with operational links needing to be traced over time, rather than mere frequencies or incidences (Yin, 2009). According to the author, a case study investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident (Yin, 2009; Williams, 2007). This is consistent with a similar investigation by Tanimoto (2012) where the author argued that a case study is suited to a research question which required detailed understanding of social and organisational processes, because of the rich data collected in context.

3.4. POPULATION, SAMPLE AND SAMPLING

3.4.1. Population

The sample was collected from technology-based social enterprises across South Africa. These social enterprise are legally constituted according to the South African Companies Act (1973) or the Nonprofit Organisations Act (1997). The social enterprises had to have existed for at least two years and have a minimum of two staff and/or volunteers. Due to the limited availability of technology-based social enterprises in South Africa compared to social enterprises in general, the participating social enterprises were selected according to several criteria:

1. Social innovation focus;
2. Type of social enterprise;
3. Geographical location;
4. Number of years in operation; and
5. Number of staff and/or voluntary members.

3.4.2. Sample

Based on the above criteria, the sample size comprised of four technology-based social enterprises. These organisations were selected for diversity and heterogeneity so to allow a diversity of data and perspectives. The social enterprises emanate from various geographical areas within South Africa, both rural and urban. They present different social products and services including a non-electric cooker (Wonderbag), a business-to-consumer online platform (FixForward), a wearable sound sensor device (Senso) and a solar energy container (SolarTurtle). The sampled social enterprises were found in various ways, including desktop research and investigation, radio interviews, personal networks with the Gordon Institute of Business and through the snowballing effect. According to Edwards and Holland (2013) snowballing is a process in which contact is made with participants appropriate for the research, and through these first participants the researcher is introduced to other participants of relevant characteristics to the research.

Initially six technology-based enterprises were interviewed. However, it was only revealed during the interview process that two of the enterprises did not meet the selection criteria in that one did not identify as a social enterprise despite it winning different awards under the social enterprise label. Rather the founder identified the organisation as a commercial business with a corporate social responsibility program. Regarding the second enterprise the owner of the enterprise was not the founder of the social innovation.

3.4.3. Sampling

The sampling was done by means of purposeful sampling. According to Elo, Kaariainen, Kanste, Polkki, Utriainen and Kyngas (2014) purposive sampling is suitable for qualitative studies where the researcher is interested in informants who have the best knowledge concerning the research topic. For purposes of this study the ideal candidates were the founders of the social enterprise. This is because the founders possess the most comprehensive knowledge of the characteristics of the social innovation as well as the strategy and performance (Weerawardena and Mort, 2006) of the social enterprise.

3.5. DATA COLLECTION INSTRUMENT

The main focus of the study was to explore the relationship between social capital and the process of social innovation of technology-based social enterprises. The following measures were used to achieve this objective:

3.5.1. Measuring social innovativeness

To determine the extent to which the innovations of the social enterprises are innovative, I have adopted the model by Caulier *et al*, (2012) contained in the TEPSIE report (2010). The purpose of this analysis is to better understand the innovations under consideration.

3.5.2. Measuring the process of social innovation

The process of social innovation will be evaluated according to the framework presented by Mulgan (2006).

3.5.3. Measuring dimensions of social capital

The measurement of social capital is not easy (Kay, 2005). There are several measures for the different dimensions of social capital and obtaining a single, true measure is probably not possible (Widen-Wulff, 2004). For social capital measurement I refer to the study by Weber *et al*, (2013). In seeking to investigate the impact of social entrepreneurs' network-based social capital on innovation and subsequent social impact through quantitative analysis, Weber *et al*, (2013) proposed a measurement model that integrates the three dimensions of social capital, namely, structural, relational and cognitive dimensions. For purposes of this study the measurement model has been adapted for a qualitative study:

Structural dimension measures are: *Types of networks and network ties.*

Relational dimension measures are: *Generalised-trust*, *ability-based trust, benevolence-based trust, integrity-based trust, closeness and multiplicity of the relationships* (Moran, 2005) *and frequency of interactions.*

Cognitive dimension measures are: *Shared goals and values, shared visions and ambitions, similar work experience and professional background.*

These measures were extracted through some of the questions contained in the topic guide labelled APPENDIX D.

3.6. DATA COLLECTION PROCEDURE

Consistent with the interpretivist paradigm, empirical data was collected by means of face-to-face and telephonic in-depth interviews using a semi-structured questionnaire. In-depth qualitative interviewing can be implemented through different approaches depending on how narrow or broad the questions are. If the goal is to get a general understanding of a particular phenomena, then unstructured open-ended interviews should be carried out. Alternatively, structured or semi-structured interviews should be had for a narrow approach. Semi-structured in-depth interviews were found to be the most appropriate method for gaining extensive knowledge on each case study as well as collecting data on individuals' personal histories, perspectives and experiences.

Unlike a structured interview which contains a series of set questions asked the same way to interviewees, a semi-structured interview is organised around a topic guide. The use of a topic guide ensures that the main points of interest are satisfied during the interview, while still providing the participant with the freedom to steer the overall direction of the interview through their own understanding and knowledge of their environment (O'Keeffe, Buytaert, Mijic, Brozovic and Sinha, 2015). Various secondary sources of data were used to assist in the development of interview questions. These included existing literature on social capital and social innovation processes. Publicly available data including profile information from each of the participants' websites and Facebook profiles were collected to obtain background information on the founder, his or her products and/or services and geographical location of the social enterprise. This data was used to inform and provide a context for the interviews.

After the relevant social enterprises were identified, each of the four social enterprises were contacted telephonically and invited to participate in the study. In-depth interviews were had with the founders of each social enterprise during the months of November 2017 and March 2018. The first interviews involved Wonderbag, FixForward and Senso. The interview with the founder of Wonderbag took place over the telephone as the founder is now based in New York, U.S.A. The first interview with the founders of FixForward and Senso was face-to-face and was conducted at a setting chosen by the participants, which was at their head offices in Muizenberg, Western Cape and Braamfontein, Gauteng, respectively.

In the second phase of interviews SolarTurtle was invited to participate in the interviews due to my interest in the services they provide and that they fulfilled the criteria set for participants. The interview with the founder of SolarTurtle took place over the telephone as the founder is located in the Western Cape. The second interview with Senso was face-to-face and took place at the Witwatersrand Business School in Parktown, Gauteng as it was a convenient location for the interviewer and the interviewee. The second interviews with the founders of Wonderbag and FixForward took place over the telephone as both participants live outside of Johannesburg. All interviews lasted approximately an hour to an hour and a half.

All interviews were recorded with recording equipment placed with the knowledge and verbal consent of the participants as well as within full view of them in the case of face-to-face interviews. An interview guide was used with broad and open questions. In cases were the participants did not understand the question prompts were used to expand discussion and to further elicit the views and opinions of the participant (Weerawardena and Mort, 2006). The first interviews collected information on the social enterprise's business profile – name of founder, description of the innovation, years in operation, number of operating offices, number of employees and/or volunteers. A follow up interview was requested and had with each participant to get detailed information about their experience in using their social capital to generate ideas, prototype, scale and diffuse and learn and evolve their social innovation, as well as filling in gaps and clarification. The questions were personalised to each participant.

3.7. DATA ANALYSIS AND INTERPRETATION

The recordings of the interviews from the four case studies were transcribed through a process of listening to each recorded interview and typing them out verbatim. According to O'Keeffe *et al*, (2016), though time consuming this process is essential for avoiding bias introduced through selective data extraction by the researcher who may have particular themes or research questions in mind.

For data analysis, the transcripts were read several times to for analysis. The data analysis technique employed in the study is a qualitative content analysis. Qualitative content analysis involves the identification of important themes and patterns in the data. This was achieved by combining an inductive and deductive coding process. In inductive reasoning, themes are established prior to the analysis based on existing literature and the themes are then applied to the collected data (Ponelis, 2015). In contrast, deductive reasoning involves the identification of patterns in the data so to provide a better understanding of the interaction of 'mutually shaping influences' and to explicate the interacting realities and experiences of the researcher and participants (Antwi *et al*, 2015), rather than formally testing pre-determined hypotheses (Dudwick *et al*, 2006). The identified themes were then compared to capture similarities, differences and connections.

3.8. DEPENDABILITY, CREDIBILITY, CONFIRMABILITY AND TRANSFERABILITY

3.8.1. Dependability

Dependability refers to the stability of the data over time and under different conditions (Elo *et al*, 2014). That is, whether the findings would be consistent if the enquiry were replicated with the same subjects or in a similar context (Krefting, 1991). Qualitative interviews are inherently impossible to replicate due to different social interactions coming into play (Edwards and Holland, 2013). According to the authors these 'include location and context, the physical and social space within which the interview takes place, power relations at the social and individual levels and a wide range of characteristics, predispositions, understandings and emotions of the interviewer and the interviewee (Edwards *et al*, 2013).

3.8.2. Credibility

Credibility of data refers to their freedom from error or bias (Walliman, 2011). According to Sinkovics, Penz and Ghauri (2008) credibility focuses on establishing a match between the constructed realities of participants and those realities represented by the researcher. In this case, bias was overcome by means of triangulation. Triangulation involves the use of multiple and different methods and sources of data to cross examine the integrity of the participant's responses (Anney, 2014). In this study the participants' responses were verified against primary data such as reports from the social enterprise itself and secondary data such as various articles written about the social enterprises on different online platforms and corporate websites.

3.8.3. Confirmability

Bhattacherjee (2012) defines confirmability as referring to the extent to which the findings reported in interpretative research can be independently confirmed by others (typically, participants). In other words, the researcher needs to demonstrate that his or her data and the interpretations drawn from it are rooted in circumstances and conditions outside from the researcher's own imagination and are coherent and logically assembled (Sinkovics *et al*, 2008). According to Shenton (2004) confirmability can be achieved through triangulation which also reduces the effect of interviewer bias.

3.8.4. Transferability

Morrow (2005) states that "transferability refers to the extent to which the reader is able to generalise the findings of a study to his or her own context. This is achieved when the researcher provides sufficient information about the self (the researcher as instrument) and the research context, processes, participants and researcher-participant relationships to enable the reader to decide how the findings may transfer". Consistent with Anney (2014), transferability has been achieved through the purposive sampling method used in this study.

3.9. ETHICAL CONSIDERATIONS

Prior to the interview a written participation consent form attached as APPENDIX C was emailed to each participant outlining the purpose of the study, what is expected from the participant, how the data collected will be used as well as how the findings will be reported. During face-to-face interviews, I started by introducing myself and then handed out the interview consent form to the participant. The participant was given the opportunity to read it if they so wished. In both cases including telephonic interviews, participants were notified that the interview was recorded and that the interview consent form would have to be read out for recording purposes. The purpose of the study was read out to them as well as their right to withdraw from the study at any time without penalty, that the study was confidential, how the data collected will be used as well as how the findings will be reported. In instances where telephonic interviews were conducted, verbal informed consent was obtained. Where face-to-face interviews were had, written as well as verbal informed consent was provided. This process was followed in the first and second interview.

The recorded interviews and transcriptions were stored in a password protected computer. Each participant's transcript was labeled with the name of the organisation. The participant consent form offered confidentiality to the participants but they were happy to be named in the study. However, the names of the organisations and individuals whom the participants mention as part of their network will remain anonymous so not to compromise their relationships. Sensitive information such as business strategies were also kept confidential.

3.10. ASSUMPTIONS

The assumptions of this research are that the participants will offer honest and truthful responses in answering the interview questions. Also, that the criteria of the sample are appropriate and therefore, assures that the participants have all experienced the same or similar phenomenon of the study.

3.11. LIMITATIONS OF THE STUDY

The study has a few limitations. The first limitation is the study's scope which focuses on technology-based social enterprises. The second limitation is the small size of the sample. Therefore, the findings of the study cannot be generalised to the larger population of technology-based social enterprises. However, the intention of this qualitative study is to raise new questions and not to produce a representative sample. Another limitation arises from the snowballing sampling method used. As one of the participants was selected on the recommendation of another participant, it may be difficult to replicate, and thus independently verify the results of the study (Dudwick, Kuehnast, Jones and Woolcock, 2006).

Furthermore, it was a challenge to collect adequate data from the participants due to the limited time the participants had for the interviews. Some of the answers provided by the participants appeared rehearsed and did not always answer the questions asked. This may be as a result of the frequent interviews they take part in in raising awareness for their products and services. One follow-up interview was had with the participants, however, this was not enough to collect more data and clarify areas of concern.

CHAPTER 4: PRESENTATION OF FINDINGS

4.1. INTRODUCTION

The following chapter will present the findings gathered from the in-depth interviews with the founders of the four technology-based social enterprises. I will also attempt to respond to the research questions posed in this study.

4.2. DESCRIPTION OF PARTICIPANTS

The information about the organisations and the founders was obtained through interviews with the founders as well as publicly available online data on the organisations' websites and online articles. Table 1 is a summary of the profile of the participating organisations.

Wonderbag

Wonderbag is the creator of an innovative non-electric portable insulated bag that keeps food and beverages cold and also slow cooks food. Frustrated by the constant electricity outages in South Africa, Sarah Collins saw an opportunity in 2008 to create a bag that would revolutionise the way that women in rural communities cooked. Using a financially sustainable hybrid social enterprise, the founder has been able to deliver an environmentally friendly solution that addresses some of the health, social, economic and environmental issues facing most developing countries. Through its insulation technology, the bag has reduced the use of fossil fuels which results in reduced carbon footprint. It also empowers rural women and girls to pursue their goals by saving them valuable time, which is mostly spent collecting wood and preparing food for their families. The enterprise employs women from the local communities in Tongaat, KwaZulu Natal and elsewhere who make the bags, thus empowering them economically and through skills development.

FixForward

FixForward is an innovative online platform in the renovation and construction industry that connects businesses and home owners wanting to renovate their properties with quality and reliable local tradesmen from low income areas. The social enterprise, which operates as a non-profit with an earned income strategy, together with a private company was established in 2012 by the founder, Joshua Cox, in response to the need of local tradesmen to generate sustainable income through attracting higher income clients. The organisation leverages technology to improve the image and credibility of the tradesmen's businesses as well as to improve their entrepreneurial skills and craftsmanship. The organisation boasts a network of over 500 tradesmen from different township communities in and around Muizenberg, Western Cape. Not only does the enterprise connect these businesses with customers, but it also up-skills them through a 12 month enterprise development programme comprising of an e-learning platform, small group workshops as well as one-on-one mentoring. The content is industry specific and the programme is aimed at empowering them with business, marketing, financial and project management skills and experience necessary to grow into successful, independent entrepreneurs.

Senso

Senso is a proudly South African company that has created the world first wrist wearable sound assistive device specifically developed to alert deaf and hard of hearing people. The attempt to get to grips with the aunt's hearing impairment and 400 million other people around the world prompted Zuko Mandlakazi to find a solution to address their daily challenges. Operating through a hybrid social enterprise he has created an innovative device that uses modern technologies to pick up sounds and translate them into vibration and LED light - anything from music, a door bell, a crying baby and even someone tampering with your car. The device provides the convenience of alerting a person through vibration and light instead of sound. Light and vibration is a better option, because sound can be distorted by external noise. The device is simple to use and can be tailored to its user. How the device works is that when there is a specific sound, the user records and stores the sound on the device and then allocates a vibration and light colour to that sound. In this way should that sound occur again, the device will alert the user of it. The company was founded in 2014 and operates in Braamfontein, Gauteng.

SolarTurtle

SolarTurtle is a women empowerment renewable energy company that focuses on providing bottom of the pyramid electrification. In South Africa the provision of electricity is one of the basic human rights, however, many communities lack reliable electricity. The supply of electricity not only warms families in winter, it makes it possible for children to study at night and it enables entrepreneurs to run their businesses effectively. Seeing the urgent need for electricity in the rural areas of the Eastern Cape, the founder, James van der Walt decided that he was going to apply solar technology to help meet the need. Through a hybrid social enterprise the company builds mobile solar powered shipping containers that can power schools and be used as offices, banks, kiosks and just about any other business. While introducing his product to the community he was met by the challenge of theft and vandalism of solar panels in schools. This prompted him come up with the idea to secure the solar panels to the container in such a way that they can be folded inwards and locked at night and then opened outwards during the day for use. Another innovation of the enterprise is a solar battery charging station that sells electricity to community members. The enterprise was founded in 2012 and operates in the rural areas of Southern Africa.

Table 1: Summary of the profile of participants

Name of social enterprise	Social innovation focus	Type of social enterprise	Geographical location	Number of years operating	Size (number of staff and/or volunteers
Wonderbag	Environment (insulated cooking bag)	Hybrid social enterprise	Tongaat, KwaZulu Natal and New York, U.S.A	9 years	40 full-time employees and 2000 part-time staff
FixForward	Social (business-to-consumer online platform	For-profit organisation with mission driven strategy	Muizenberg, Western Cape	6 years	4 full-time employees
Senso	Social (wearable sound detection device	Hybrid social enterprise	Braamfontein, Gauteng	4 years	1 full-time employee and 6 part-time staff
SolarTurtle	Energy (solar panels	Hybrid social enteprise	Stellenbosch, Western Cape	6 years	2 full-time employees and 2 part-time staff

4.3. DEFINING SOCIAL ENTERPRISE IN THE SOUTH AFRICAN CONTEXT

The following are responses to the question, 'how would you describe your organisation?' It was important to ask this question in order to ascertain the participants' understanding of what a social enterprise is.

Consistent with the literature, the founder of FixForward conceded that there are multiple definitions for the concept of a social enterprise and that people choose the definition that mostly resonates with them. *'There are many definitions for social enterprise and people pick and choose the one they like.'*

In light of this, all the participants in the study agreed that a social enterprise is a financially stable entity with the goal of making a social impact. This is demonstrated in Mr Joshua's statement that, '*fundamentally for me a social enterprise is an entity that can make revenue to sustain itself but it is primarily and fundamentally driven by a social mission rather than a profit motive and the way that I would test that is, are you making sacrifices to the bottom line to increase your impact and if you are not willing to do that then I would say that you are not actually a social enterprise.'*

This too was the sentiment by Ms Sarah and Mr Zuko of Wonderbag and Senso, respectively. '*I am a full profit business which has a social mission….What that means is that it is*

financially profitable so that it is sustainable but it also delivers the correct social mission and product that the Wonderbag is.' In the case of Senso, the founder responded that, '*we are strictly commercial but our product meets a social need'.*

As mentioned in the literature, there are different concepts for describing these enterprises including a social business as shown in Mr James' response. He believes that *'a social enterprise first and foremost is focused on change, having a positive impact on humanity as a whole and since that is our primary mandate to make a difference for people that don't have energy, that live in poverty I think that classifies us a social business.'*

When I asked Ms Sarah and Mr Zuko whether they considered themselves social enterprises, both replied that the label was attributed to them. Ms Sarah responded '*it's a social enterprise* *and I am being labelled as a social entrepreneur.'* Similarly, Mr Zuko expressed that he was also being *'labelled'* a social entrepreneur, whereas he considers himself '*a problem solver.'* I found this answer intriguing because it signifies the diversity of definitions of what a social entrepreneur is in the South African context. It shows that, how the creators of social innovations define themselves might be inconsistent with how proponents of the practice view them.

4.4. BUSINESS MODEL

The following are answers to the question, 'how would you describe your business model?'

Due to an increasingly competitive funding environment, many NGOs in South Africa find it difficult to garner sufficient and continuous financial support for their work. While at the same time, for-profit social enterprises find it difficult to access much needed funding to ease their path to sustainability due to their for-profit status. To overcome this challenge to achieving self-sustainability while doing good the majority of the participating social enterprises have opted to operate under two enterprises, an NGO as well as a Pty Limited company. Hereunder, are the participants' responses which highlight the different legal structures and business models that social enterprises in South Africa can adopt.

FixForward operates a for-profit organisation with a mission driven strategy. '*We have two registered entities. We have a non-profit trust which is responsible for funding and the development of entrepreneurs and the company generates the revenue through the commercial activities. At this stage the trust is 100 percent owner of the company and the trust uses some of its grant funding to contract the company to generate leads and business for the tradesmen, so the trust contracts the company to do marketing. We rely at the moment on grant funding but we do also generate revenue; we essentially put a mark up on the price that the tradesmen charge and then when the clients come by us then we deduct our commission and then make the payment across to the tradesmen.'*

While Ms Sarah, Mr Zuko and Mr James have chosen to adopt a hybrid model. They all describe their enterprises as full profit organisations with a social mission. Mr James describes this model as having a *'full profit side which generates money and pays salaries and then we have the charity side which handles all of the community projects so if a bank comes to us and says they want a solar bank in solar containers, that will fall under our Pty Limited business* *thats pure for profit, we put a mark up on it and thats it. All our community projects run from the NPO, the charity, so we split the business in half, each side is different but they work hand in hand.'*

A funding model that deserves attention is one that emphasises the importance of offering affordable products and services to users. As an alternative to the traditional NGO model where goods and services are given to end users for free, Ms Sarah and Mr Zuko believe in '*looking at how to make a product affordable to the people that need it the most and who can't afford it.'* As expressed by Mr Zuko, *'we don't want our price point to lock anyone outside because sometimes you have a solution to a problem but the affordability is a problem.'* As such both participants apply different revenue models of subsidising the end users.

It is clear from the interviews that financial sustainability is essential for the survival of their organisations, even if secondary in importance. All of the participants alluded to the fact that it is a challenge to meet a social mission while at the same time be financially sustainable. I refer to Ms Sarah's statement which succinctly describes the perspective of the participants:

'*Another thing that is a very important part of the evolution of the Wonderbag is the innovation of the business models we have used, so looking at how to make it financially successful but also socially impactful and environmentally sound. So for me the triple bottom has been the most difficult thing to achieve because at the heart of me is economic empowerment of women but obviously you have to run a successful business to have a philanthropic arm and to be a social enterprise you have to balance the financial side with the economical side. So that has been a tough tough road to balance, that and make that viable and to have enough margin in the products to be able to donate a portion of every bag to the foundation so that we can subsidise bags to people that can't afford them'*.

Mr James expressed the view that '*you can't run a charity and make a living of it, its almost near impossible. You are constantly relying on people donating you money to do community projects and usually they just give you enough money to buy the infrastructure and sometimes not even all of the infrastructure, so I can't pay my salary from the foundation side, I will have to pay it from the Pty side.'*

4.5. SOCIAL INNOVATIVENESS

I addressed social innovativeness by asking the following question: 'how would you describe your product?'

All the participants strongly perceived their products as highly innovative. Referring to the Wonderbag, Ms Sarah opined to the effect that, *'I think it is hugely innovative, what I have taken is an ancient cooking technology which was heat retention cooking and innovated it to be relevant culturally in the twenty first century.'* With this age-old insulation technology Ms Sarah saw an opportunity to empower women in rural communities who spent most of their time cooking over open fires. Through the Wonderbag she was able to save the environment by eliminating the need to use expensive resources like fire wood and electricity, help integrate marginalised women in rural areas into the mainstream economy by providing them with marketable skills and job opportunities and also free children from the dangers of open fires when cooking.

Mr Joshua, the founder of FixForward which is a business-to-consumer online platform described his service in the following way: '*I would definitely say that our business is innovative. I mean to my knowledge the model as we have it doesn't exist anywhere in the world so it is not just groundbreaking in South Africa, I would say globally it is. There are other tradesmen referral platforms that do exist but those are pure commercial and it's only the business side. There is no social mission really attached to what they are doing in that they are not really offering any additional benefits to the tradesmen that they work with; there is no training, there is no development of the individual, they are only just connecting them to clients and they are still primarily driven by profit motive, even those who work with tradesmen from the local income areas are still fundamentally driven by profit so I think in that regard, in the way we have put together the development about entrepreneurs alongside really viable high potential business model and in this sector specifically I would say is quite unique.'* His platform assists tradesmen who are marginalised as a result of lack of resources and business acumen enter the formal economy.

Mr Zuko created his product in response to his aunt's hearing challenges and later discovered that the problem was had by 4 million other people around the world. Coming to the knowledge of the dangers of being unable to hear critical sounds in the environment, he decided to create Senso. *'There is nothing like Senso for now. What is out there is a hearing aid device; this one is for people who are hard of hearing. There is one for profoundly deaf people, the cochlear* *implant which costs around R90 000, which is installed in the persons inner ear. This is problematic for the deaf community because it suggests that there is something wrong with being born deaf. Our device as a better alternative is something that you just put on your wrist to be alert to the environment.'*

SolarTurtle provides solar powered containers to rural communities that are not yet connected on the national grid. What the enterprise does is, *'convert containers into drop and go micro utilities. The purpose of a micro utility is to provide basic services like electricity so you can put the box down anywhere you want and your electricity comes included with the box. So what makes our innovation unique is the security aspects; the fact that the whole system folds away then you can move it to a site and then it unfolds again. Then in the evenings when people want to steal the solar panels then the whole system folds away again into the secure shell of the container. That is why we called it a SolarTurtle, because when you threaten a turtle it falls into its shell and hides away. Wanted to do the sam thing. This idea of bio-mimicry. So the solar panels fold away into the hard shell and hide away at night and in the mornings when it is safe for the people to run their business it can unfold again.'*

4.6. PROCESS OF SOCIAL INNOVATION

4.6.1. Generation of ideas

The questions that were posed in this section were, 'how did the idea for your innovation come about?' and 'who influenced your idea?'

As already discussed under social innovativeness, social innovation emanates from a perception of an unmet social need and a desire to meet that need in order to improve social conditions. It is important that social entrepreneurs identify the social, economic or environmental situations that highlight the need for the innovation as was the case with the participants.

Ms Sarah was already part of the communities for whom she developed the Wonderbag as she had lived and worked amongst them for more than 30 years. This is illustrated by the following quotation:

'I was already working in communities so I already had my ear to the ground….I knew the needs of the communities. I was aware of the far reaching impacts of cooking on an open

fire….I was looking for something in the cooking space so I knew that if we could influence the way people cooked we could change the economic status of the grandmother or the child headed household. So I would say that the community came first and then came the innovation.'

Having a close relationship with frequent contact with these communities suggests that she was well informed about the challenges facing the communities. This also implies that she was better skilled and knowledgeable than an outsider would have been in identifying the right problem to focus on as well as identify the best solution for that problem. When ask why she decided on the technology that is the Wonderbag, she said that whilst considering different cooking stoves she suddenly recalled how her grandmother had used heat retention cooking by placing two cushions in a box. This experience is an example of cognitive social capital where knowledge and experience is shared between family members.

Mr Joshua shared that his idea came from helping a close friend, a tradesman who lived in the informal settlement of Diepsloot, to access business tools that assisted him to attract significant contracts. He described their friendship as close as they would spend a lot of time together on weekends watching soccer. Through the strong ties with his friend he was able to access exclusive information about the informal market of tradesmen in the townships, *'I spoke to him and he said there were a lot of quality reliable people living in Diepsloot who can't get clients because people don't trust them, because they don't have a proper business, they don't have a website, a name and a registered company and fixed office so people don't trust them so that is really what sparked the idea.'*

As a child Mr Zuko had witnessed the daily struggles of his aunt to communicate effectively with members of the family as well as visitors due to her condition of being hard of hearing. When he was older he wanted to buy her a hearing aid but found it expensive. In trying to find an affordable solution for her he discovered that there were other people in a similar situation as her. '*I wanted to solve a problem for her, to develop a solution but while doing this research I realised that there are 400 million other people in the same situation as my aunt'.* When asked whether his aunt was actively involved in the innovation his responds was, *'I never discussed the device with her, it was only observation.'*

Whereas for the founder of SolarTurtle, the idea for his innovation was inspired through observation of the needs of communities with whom he had no ties. *'I wanted to start a social business. I saw that renewable energy had the potential to create rural jobs, I didn't know how to do it….I know from a fact that South Africa is struggling to keep up with demand especially in the rural areas so I was toying with the idea. How can I make rural communities start their own businesses in the energy space, which is basically what the green economy is all about.'*

The relational dimension of social capital comprises of trust, norms, obligations and identity (Camps and Marques, 2014). The degree of identification with the end user was different for the participants. I found Ms Sarah and Mr Zuko to be the two participants to have the greatest identification with their respective end users. They attribute this identification to the first hand experience they had in witnessing the challenges of the end user and family members, respectively, for whom they sought to empower.

Furthermore, what appeared common amongst all the participants was that the initial idea for the innovation did not come from collaborations with end users or any other people. Instead, all four ideas were triggered by observing the circumstances of their targeted end users. This is defined as a top-down approach to innovation. Two of the participants, namely FixForward and SolarTurtle, seem to have adopted a top-down approach to innovation. This refers to social innovations that are initiated by private actors as opposed to a bottom up approach which is characterised by a strong involvement of end users (Maticiuc, 2014). The latter approach was applied by Wonderbag and Senso. To emphasise the point I refer to a quote by Ms Sarah who says, '*what I think has happened so often is that people innovate for communities rather than communities innovating for a product, developing from grassroots upwards. So this* (Wonderbag) *was definitely an innovation that came out of the grassroots approach.*'

4.6.2. Developing, prototyping and piloting ideas

In this section the participants responded to various questions such as 'how did you develop your innovation?' and 'who influenced the development of your idea?'

Once the social entrepreneur has identified a social need and has conceptualised how he or she is going to meet that need he or she then moves to the development, prototyping and piloting stage. This stage involves researching ideas and turning those ideas into tangible products and/or services.

Unlike the case under the idea generation stage, all the participants actively pursued social networks. By participating in social networks, these social entrepreneurs gained access to novel streams of information that can be used to access funding opportunities (Kirkman 2012). I refer to Mr James' interview: *the centre for renewable energies….gave money.…not only did they provide the networks they also provide co-funding but the networks they provided gave me direct access to* (a technology institution)*, which has a good relationship with the university so through them I got funding. I then took my proposal to* (a development institute) *who also provided some more money. With those two players on board I then went to* (a government department) *and they gave me some more money.'*

Mr Zuko explained how he had won a competition with a technology hubs which not only validated his idea and gave him funding, but it also exposed him to knowledgeable people who had the *'particular skills'* he needed. These specialist skills included industrial designing and mechanical engineering. He also mentions that the specialists at the hub had their own networks which they used to create opportunities for him which he might not have otherwise had. He recalls an incident where one of the innovation specialists at the institutions got him a meeting with a director at a partner institution which he had struggled for months to make happen. This incident is one that demonstrates how weak ties can assist one to access distant opportunities which is one of the benefits of having weak ties (Granovetter, 1983).

Other demonstrations of weak ties can be found in Mr James' case study. He shared his experience of how he received a referral to one of the universities that had a large renewable energies research department by an energy regulator. The university offered to assist him develop his idea by way of academic support in a master's degree which would give him access to scientific knowledge on the topic of renewable energy. Through working with the university he soon developed good relationships with its members.

In the interview he mentions that, apart from academic information and funding to pilot his idea, he was able to get direct access to *'all the networks at the university'* such as business mentors who had their own networks that presented possible sales leads as well as direct links into organisations that fund technologies. In this way the university was a form of linking social capital and a bridge to other social networks. He mentions that the networking opportunities he was exposed to by the university were mostly academic *'so in terms of finding useful partners it was not that useful but great from a research point of view to find out what technologies work and what new technologies are on the way.'* However, he did get access to government opportunities offered exclusively to universities to develop a secure solar system for rural communities, which resulted in the development of what is now the SolarTurtle.

Other benefits to having an extended network of weak ties include successful diffusion of new ideas, progression of scientific endeavours and facilitating the co-existence of sub-groups divided by race, ethnicity, geography or other characteristics (Granovetter, 1983). The latter benefit was picked up from the FixForward case study. Mr Joshua described the piloting process as *'trying to see….whether people from high end suburbs would consider using tradesmen from low income areas.'* In a country marred by racial tensions and where the economic divide is increasingly wider, the enterprise, through its technology platform, has been able to deliver social, cultural and economic transformation in a way that other social organisations have been unable.

Based on the case studies, the majority of the participants appear to have started by sharing their ideas with people they had no ties with but, importantly, with people they believed to have insights into the sector they were entering as well as the knowledge and skills necessary to develop their ideas. An example can be taken from Ms Sarah's experience. In the interview she recalled how she had asked a stranger on a plane to make her a prototype of the bag, *'I said I wanted to make a bag and I drew the bag. She was somebody who was already making dresses so she understood what I was trying to do. I showed her the cushions and she was then able to make my first prototype which was the first Wonderbag….It wasn't a case of me trusting her* (with my idea) *because I didn't know what the bag would look like.'*

When asked why they thought the organisations were open to assisting them all the participants answered that it was because they believed in their innovations and the impact that they were trying to effect. This can be found in Mr Zuko's experience. He shared how he had approached a deaf federation with his innovation. Despite him being unknown to them he was given access to a large community of deaf people who voluntarily tested his device. He described this last relationship with the federation as one built on trust and a shared vision and mission to make a meaningful impact in the lives of the deaf community.

The case studies reflect very few instances of strong ties in the development, prototyping and piloting stage of their innovation. When asked to identify individuals who had a part to play in shaping his idea Mr James identified his family, *'They had lots of inputs, I come from an engineering-oriented family.'* He describes this relationship as one based on *'trust'* and *'because you are family they are willing to help you'.* He also mentions that he received financial support from his parents to help keep him afloat during the early stages. Similarly, Ms Sarah referred to her brother who was her partner in the business as well as helped her with funding. During his interview Mr Joshua spoke about a work colleague who he has known since the time they were working for the same organisation. This colleague is now a co-trustee in FixForward. Mr Zuko also noted his German friend who had introduced him to a network in China. He describes their strong bond as a brotherhood, one which *'is based in our mutual interest'* in helping to distribute each other's innovations in the others country.

A theme that stood out in the interviews was the importance of end user feedback in the developing stage of the innovation process. Many new ideas are rejected by people who stand to benefit from them if they feel they are imposed upon or baffled by the proposed changes (Bornstein and Davis, 2010). To overcome such challenges, there needs to be collective understanding so that there is acceptance, adoption and support of the social innovation. This is achieved through negotiating the innovation and re-evaluating solutions to include shared knowledge, evolving perspective and experiences to fit with the community practice. It is important for the social entrepreneur to listen to the end user and take into consideration their input when developing ideas that will ultimately improve their lives. This was reiterated by Ms Sarah that, *'they* (customer) *have had the most massive impact because if you listen to your customer and you spend time on the ground and….ask them what their problems are, give them Wonderbags and let them test them…..You have to understand what are the needs that are being met and where is the gap. So I think people create things that they perceive are needed when actually it is not really an issue for those people.'*

This process of customer involvement in the innovation process is referred to as customer driven innovation (Desouza, Awazu, Jha, Dombrowski, Papagari, Baloh and Kim, 2008). The process is credited well in Mr Zuko's statement that, '*The deaf community actually created the innovation, simply because the original idea that I had at the time, at the early stages has evolved simply because of the feedback we were getting, because each time we reiterated a functionality or an idea at the early stage we would take it back to deaf individuals for* *feedback.'* This demonstrates that, by its nature, innovation is the product of a collaborative process among various individuals rather than the result of the intelligence of an individual.

One of the outcomes of social capital is influence. Studies have shown that social capital can enhance success by strengthening an entrepreneur's status and image (Leana and van Buren, 1999). According to Scheiber (2016) if a social entrepreneur is affiliated with a respected institution for example, his or her social initiative might gain credibility through the institution's legitimacy and this can help him or her get 'buy in' from outsiders. This view was shared Mr Zuko and Mr James. I refer to Mr Zuko's quote: *'I realised I needed my credibility. I realised that each time I was entering these entrepreneurial competitions I was building credibility and exposing myself to a new network. After my pitch people would come to me with their businesses cards.'*

Mr James also shared how he found the association of his idea with his master's degree supervisor added credibility to his idea when approaching potential investors.

Dawson *et al*, (2011) argue that, in spite of social capital providing a network based on shared knowledge and understanding that can 'facilitate collective sense-making through the support of common goals', there may be competing interpretations within the network of how to tackle a problem or to identify possible actions in response to an opportunity. This was the case for FixForward where a co-trustee decided to resign from the enterprise due to having a vision and direction for the organisation which was inconsistent with its purpose.

4.6.3. Assessing, scaling up, and diffusing good ideas

The participants responded to the question, 'would you agree that your organisation is in the scaling phase?' and 'if so, how have you scaled?' and 'who has helped you scale?'

The case studies revealed that most of the social enterprises except Senso have scaled their social innovations, although in different ways and at different levels. Senso was found to still be in the phase of developing its innovation into a marketable product.

FixForward has expanded its program beyond Muizenberg into the rest of the Western Cape and Gauteng. It has achieved this through a partnership with one of the large banks which has agreed to finance its project that will see it develop and support 100 tradespeople. The enterprise hopes to grow its impact into other provinces, Africa and the rest of the world. Nevertheless, the process of scaling its program has not been without its challenges.

SolarTurtle has scaled its social impact beyond South Africa and is now operating projects in rural communities in the rest of sub-Saharan Africa. Mr James attributed his success to his extensive network which includes a multinational technology company and all of the big universities. In the interview he explains how he has capitalised on network relationships to enter into new markets: *'I am looking now to expand to* (a new country) *so I don't know anyone in* (that country) *but I have a large network so I just send an email to all the companies that have a footprint in* (that country) *and ask for recommendations and then they give me a few recommendations then I start contacting them, that's how I expand.'*

Access to local and foreign markets is considered difficult for small enterprises. Wonderbag had spent the first 3 years of its enterprise trying to promote its product and only managed to sell it in small quantities. Amongst the participants, it was the only organisation that had successfully scaled its product locally and internationally. The enterprise has to date employed over 2000 people in South Africa and has sold over one million bags around the world through strong partnerships with multinationals, governments, NGOs and local corporations.

4.6.7. Learning and evolving

In this section, the question was posed, 'how have people influenced the way your innovation has evolved?'

The Wonderbag appeared to be the only enterprise whose innovation had successfully scaled. In terms of learning and the evolution of the Wonderbag, Ms Sarah states that the community has been instrumental in the evolution of her innovation, *'as one progresses you become influenced and reliant very much as you evolve your innovation on grassroots feedback from your consumers and your customers.'* The Wonderbag has evolved into what Ms Sarah calls *'a culturally relevant technology.'* According to Praszkier, Nowak and Zablocka-Bursa, effecting change in a lasting way can only be achieved through the co-operation of the society by dint of multiple social networks built on trust and shared goals. This triggers active societal participation: people become interested and involved, taking a lead in bottom-up changes.

As a product that is targeted at women in marginalised and patriarchal communities, the product has evolved to where '*women have been able to empower themselves through the Wonderbag, yes it is a product that cooks but it is a product that has created so many entrepreneurs and enabled exciting entrepreneurs to go even further in having more time for themselves and for their work and also to empower girls to be able to go to school rather than just have to cook for their other siblings.'* She mentions how she too has evolved the innovation into a Wonder-Feast which is a platform that brings communities together to address some of their challenges. Based on the case studies, the Wonderbag was the only participant that has brought about systematic changes in the communities it works in.

CHAPTER 5: DISCUSSION OF FINDINGS

5.1. INTRODUCTION

This chapter will present a discussion of the findings as presented in the previous chapter.

5.2. ARE TECHNOLOGY-BASED SOCIAL ENTERPRISES INNOVATIVE?

The findings revealed that these technology-based social enterprises are, to a large degree, innovative. The social enterprises share a strong desire and mission to transform society. Each innovation demonstrated all the characteristics of a good social innovation according to the model by Caulier-Grice *et al*, (2012), however, some innovations demonstrated this better than others. For example, I found the Wonderbag and SolarTurtle to be the most innovative and FixForward and Senso to a lesser degree. This is because it was unclear how the two latter innovations enhanced society's capacity to act. As Howaldt *et al*, (2016) had argued citizens and customers need to make contributions to the process of developing new products to re-solve problems and not just to serve as suppliers of information about their needs.

5.3. DO TECHNOLOGY-BASED SOCIAL ENTERPRISES FOLLOW THE INNOVATION PROCESS?

Since the social enterprises were found to be innovative, it could be argued that technology-based social enterprises do follow the social innovation process. Even though I found that it was not a deliberate and systematic approach, it does appear that all the social enterprises followed a linear process similar to the social innovation process as presented by Mulgan (2006).

5.4. IN WHICH WAY DO THE DIMENSIONS OF SOCIAL CAPITAL INFLUENCE THE SOCIAL INNOVATION PROCESS OF TECHNOLOGY-BASED SOCIAL ENTERPRISES

From the beginning, there was complete consensus amongst the participants that networking was a fundamental element in the success of the innovation process. It was also evident that none of the participants started their innovations with significant social capital; they had very little, if any, access to financial resources, skills and experience to draw upon.

Regarding idea generation, my results found that technology-based social innovations in this study are conceptualised by single individuals. This finding is consistent with prior research (Dees, 1998; Bornstein and Davis, 2010) which considers social entrepreneurs as individuals or people who initiate and lead change processes. Referring to the definition by Martin and Osberg (2007), 'the role of a social entrepreneur is to move society from a stable but inherently unjust equilibrium to a new, stable equilibrium that releases potential and alleviates suffering on a major scale'. Social entrepreneurs work to ensure that sensible ideas take root and actually change people's thinking and behaviour across a society (Bornstein and Davis, 2010).

These innovations were found to have been created in response to challenges faced by people with whom they have a close relationship. This shows that often innovations come not from trying to solve distant problems but rather problems of those closest to you which then turn out to be shared by others who are distant from the innovators. As there was no active participation of communities or persons for whom the social innovations were created, this suggests that the majority of social innovations in this study start from a top down approach in the sense that the original drivers of the innovations are the social entrepreneurs themselves (Manzini, 2014). With regards to social capital, structural social capital was found to be useful in identifying social problems as well as gathering information about the extent of the problem and whether and how it can be resolved. There was no significant evidence of relational and cognitive social capital.

When I assessed the development, prototyping and piloting stage, the findings revealed that all the participants began their enterprises with no significant social networks that they could reach out to to help develop their ideas. This meant that they had to create their own networks. These networks were based on weak ties. Having many weak ties of linking social capital was found to be very important in accessing significant resources such as funding opportunities, specific knowledge and specialised skills which the social entrepreneurs did not have themselves. The process of establishing networks revealed high levels of ability-based trust towards third parties. The presence of generalised trust was not a consideration for the participants. However, benevolence-based trust and integrity-based trust was important for establishing and maintaining partnerships with large organisations. In this stage, structural and relational social capital becomes more important.

All the participants alluded to the presence of teams that they work with in the organisation. However, the influence of these teams was not elaborated on in the interviews. There was a general acknowledgement that these teams contribute to the daily operations of the enterprise, but the details of these contributions were not provided.

The findings also show that partnerships with large organisations such as corporates, NGOs and government is crucial for scaling social efforts in South Africa and beyond. Dobele (2015) suggests that this is because these organisations are generally poor at creativity but good at implementation and also have the resilience, roots and scale to make things happen. The case studies demonstrate that it is not enough for social enterprises to generate new ideas, there also needs to be collective acceptance and support from the community, investors, government and civil society to facilitate the integration of the idea into the rest of society and beyond. This reflects the presence of a high level of structural and cognitive social capital.

In the development and scaling stages, the importance of who you know was not mentioned in the interviews. The research does not suggest that the participants were strategic in targeting specific individuals or organisation, instead the participants were found to approach anyone and everyone they believed would help develop their ideas. With regard to learning and evolving the social innovation, the results showed that customers and communities play an instrumental role in evolving the innovation to suit their different contexts. This implies that as the social innovation progressed structural social capital was becoming less important in comparison to relational and cognitive social capital.

5.5. IMPLICATIONS AND RECOMMENDATIONS

The importance of this study is that it highlights the role of social capital in each stage of the process of innovation of technology-based social enterprises. The success of technology-based social innovation depends on the participation of different actors in the process of social innovation. The hope is that it adds to the body of knowledge on social entrepreneurship in South Africa in terms of the definition of social enterprises from a social entrepreneur’s perspective.

The findings of this study are of particular relevance for social entrepreneurship practitioners, innovation hubs and universities. The findings underlie the need to include a networking component in social entrepreneurship and innovation support programmes. Public and private stakeholders at local, regional and national level should focus more on encouraging the creation and support of business networks. They should help facilitate the availability of needed information, knowledge and expertise, in particular with regard to access to local and foreign markets and skills building within and outside of these networks. For example, it is not enough for university centres for social entrepreneurship and innovation to help social entrepreneurs theorise about identifying and developing social innovations, nor for innovation hubs to have a few specialists with little time at their disposal to help social entrepreneurs. There needs to be significant efforts made to involve both social and business networks in the journey of the social entrepreneur. By no means does this recommendation suggest that social entrepreneurs do nothing and expect that these networks be given to them but it does suggest that these networks be encouraged to be more receptive to them. All relationships, regardless of the nature, require some effort to maintain in order to continue benefiting from it, therefore, this suggestion does not absolve social entrepreneurs from taking responsibility for their innovations and seeing them through to successful impact.

5.6. SUGGESTIONS FOR FUTURE RESEARCH

The limitations of the study suggest areas for future research. Future research is required to investigate the relationship between social capital and social innovation. Focus should also be had on a larger sample of technology-based social enterprises as well as social enterprises in general. Research is also needed to look into the definition of a social entrepreneur in the South African context from the subject's point of view. Additionally, research on different business models is warranted to assess which model is most viable and sustainable for social enterprises to adopt.

REFERENCES

Primary Sources

Legislation:

1. Republic of South Africa, Department of Arts, Culture, Science and Technology. (1996). *White Paper on Science and Technology*.
2. Republic of South Africa, Department of Economic Development. (2010). Framework of the New Economic Growth Path. www.economic.gov.za/communications/publications/new-growth-path-series/download.
3. Republic of South Africa, Department of Science and Technology. (2012). Final Report of the Ministerial Committee on the Science, Technology and Innovation landscape in South Africa*. General Notice 425 of 2012*. Government Gazette.
4. Republic of South Africa. (1973). Companies Act, Number 61. Pretoria. Government Printer.
5. Republic of South Africa. (1962). Income Tax Act, Number 58. Pretoria. Government Printer.
6. Republic of South Africa. (1997). Nonprofit Organisations Act, Number 71. Government Gazette Number 18487. Pretoria. Government Printer.

Secondary Sources

Books:

1. Bhattacherjee, A. (2012). Social science research: Principles, methods and practices. *Textbooks Collection.* Book 3. http://scholarcommons.usf.edu/oa_textbooks/3.
2. Dawson, P.M. and Daniel, L. (2010). Examining the processes of ‘innovation’ to inform the development of a new framework for making sense of ‘social innovation’. In H. Yeatman (Eds), The SInet 2010 eBook. 107 – 119.
3. Edwards, R. and Holland, J. (2013). What is qualitative interviewing? Bloomsbury Academic. Bloomsbury.

4. Fagerberg, J. (2004). Innovation: A guide to the literature. 1 - 22. Fagerberg, J., Mowery, D. and Nelson, R. (eds). The Oxford Handbook of Innovation. Oxford University Press, Oxford.
5. Habisch, A. and Adaui, C.R.L. (2013). A social capital approach towards social innovation. Osburg, T. and Schmidpeter, R. (eds). *Social Innovation, CSR, Sustainability, Ethics and Governance.* Springer-Verlag Berlin Heidelberg.
6. Hooghe, D. and Stolle, D. (2003). Generating social capital: Civil society and institutions in comparative perspective. *Palgrave MacMillan*.
7. Jessop, B., Moulaert, F. and Hamdouch, A. (2013). Social innovation research: A new stage in innovation analysis? *The International Handbook on Social Innovation*. Chapter 8. 110 – 130.
8. Naude, W. (2014). Entrepreneurship and economic development: Theory, evidence and policy. Chapter 18. 1 - 20. Currie-Adler, B., Kanbur, R., Malone, D.M. and Med-hora, R. (eds). International Development. Ideas, Experiences and Prospects. OUP Oxford.
9. Pascual, O., van Klink, A. and Grisales, J.A.R. (2011). Create impact: Handbook for sustainable entrepreneurship. *Enviu - Innovators in Sustainability*. 1 - 54.
10. Ritchie, J., Lewis, J., Nicholls, C.M. and Ormston, R. (2013). Qualitative research practice: A guide for social science students and researchers. Chapter 1. Sage.
11. Terwel, B.W. (2009). Competence-based and integrity-based trust. Chapter 2. Terwel, B.W., Harinck, F., Ellermers, N. and Daamen, D.D.L. (eds). Origins and consequences of public trust: Towards an understanding of public acceptance of carbon dioxide capture an storage.
12. The World Book Dictionary. (2001). World Book Inc.
13. van der Gaag, M. and Snijders, T.A.B. (2004). Proposals for the measurement of individual social capital. Creation and Returns of Social Capital. Chapter 9. 199 - 218.
14. Venter, R. and Urban, B. (2015). Entrepreneurship: Theory in practice. Third Edition. South Africa. Oxford Southern Africa.
15. Walliman, N. (2011). Research methods: The basics. Routledge, Taylor and Francis Group. London and New York.

Journal Articles:

1. Abdul Kadir, M.A.B. and Sarif, S.M. (2016). Social entrepreneurship, social entrepreneur and social enterprise: A review of concepts, definitions and development in Malaysia. *Journal of Emerging Economies and Islamic Research*. Vol. 4. No. 2. 1 – 16.
2. Abu-Saifan, S. (2012). Social entrepreneurship: Definition and boundaries. *Technology Innovation Management Review*. 22 - 27.
3. Adams, D. and Hess, M. (2010). Social innovation and why it has policy significance. *The Economic and Labour Relations Review*. Vol. 21. No. 2. 139 – 156.
4. Adler, P.S. and Kwon, S. (2002). Social capital : prospects for a new concept. *Academy of Management Review.* Vol. 27. No. 1. 17 - 40.
5. Adriani, L. (2013). Social capital: A roadmap of theoretical frameworks and empirical limitations. *Working Paper in Management. Birkbeck University of London*. 1 - 26.
6. Agostini, M.R., Marques, L.V. and Bossle, M.B. (2016). Social innovation as a process to overcome institutional voids: A multidimensional overview. *Mackenzie Management Review*. 17(6), Special edition. 72 – 101.
7. Alter, K. (2007). Social enterprise typology. 1 - 124. http://www.virtueventures.com/se-typology.pdf.
8. Anderson, A.R. and Jack, S.L. (2002). The articulation of social capital in entrepreneurial networks: A glue or a lubricant? *Entrepreneurship and Regional Development*. 14(3). 193 - 210.
9. Andrew, C. and Klein, J. (2010). Social innovation: What is it and why is it important to understand it better. *Cahiers du Centre de recherche sur les innovations sociales (CRISES): Collection Etudes Theoriques.* No. ET1003. 1 - 45.
10. Anney, V.N (2014). Ensuring the quality of findings of qualitative research: Looking at trustworthiness criteria. *Journal of Emerging Trends in Educational Research and Policy Studies*. 5(2). 272 - 281.
11. Antwi, S.K. and Hamza, K. (2015). Qualitative and quantitative research paradigms in business research: A philosophical reflection. *European Journal of Business and Management.* Vol. 7. No. 3. 217 – 225.
12. Austin, J., Stevenson, H. and Wei-Skillern, J. (2006). Social and commercial entrepreneurship: Same, different or both? *Entrepreneurship Theory and Practice*. 1 – 22.
13. Bacq, S. and Janssen, F. (2011). The multiple faces of social entrepreneurship: A review of definitional issues based on geographical and thematic criteria. *Entrepreneurship and Regional Development*. Vol. 23. Nos. 5 - 6. 373 - 403.

14. Basu, S. (2012). Social capital and social entrepreneurship in the third sector: Analysing links. *Interdisciplinary Journal of Contemporary Research in Business.* Vol. 4. No. 3. 386 - 405.
15. Beckmann, M. and Zeyen, A. (2014). Franchising as a strategy for combining small and large group advantages (logics) in social entrepreneurship: A Hayekian perspective. *Non-profit and Voluntary Sector Quarterly*. 43(3). 502 – 522.
16. Berzin, S.C., Pitt-Catsouphes, M. and Peterson, C. (2014). Role of state-level government in fostering social innovation. *Journal of Policy Practice*. 135 - 155.
17. Bjork, J., di Vincenzo, F., Magnusson, M. and Mascia, D. (2011). The impact of social capital on ideation. Industry and Innovation. 18(6). 631 - 647.
18. Bloom, P.N. and Chatterji, A.K. (2009). Scaling social entrepreneurial impact. *California Management Review*. Vol. 51. Issue 3. 114 - 133.
19. Bloom, P.N. and Smith, B.R. (2010). Identifying the drivers of social entrepreneurial impact: Theoretical development and an exploratory empirical test of SCALERS. *Journal of Social Entrepreneurship*. Vol. 1. No. 1. 126 – 145.
20. Blount, J. and Nunley, P. (2014). What is a "social" business and why does the answer matter? *Brooklyn Journal of Corporate, Financial and Commercial Law*. Vol. 8. 278 – 316.
21. Bond. (2016). An introduction to social innovation for NGOs. 1 - 23. www.bond.org.uk/sites/default/files/resource-documents/intorduction-to-social-innovation-0416.pdf.
22. Bornstein, D. and Davis, S. (2010). Social entrepreneurship: What everyone needs to know. *Oxford University Press.* 1 - 147.
23. Boschee, J. and McClurg, J. (2003). Towards a better understanding of social entrepreneurship: Some important distinctions. 1 - 7. http://www.se-alliance.org/better_understanding.pdf.
24. Braunerhjelm, P. and Hamilton, U.S. (2012). Social entrepreneurship – A survey of current research. Working Paper. *Research Network Debate: Swedish Entrepreneurship Forum*. Vol. 9. 1 - 5.
25. Brink, H.I.L. (1993). Validity and reliability in qualitative research. *Curationis*. Vol. 16. No. 2. 35 - 38.
26. Brown, L. and Osborne, S.P. (2013). Risk and innovation: Towards a framework for risk governance in public service. *Public Management Review.* Vol. 15. No. 2. 186 - 208.
27. Bulut, C., Eren, H. and Halac, D.S. (2013). Which one triggers the other? Technological or social innovation. *Creativity Research Journal*. 25(4). 436 – 445.
28. Butzin, A., Howaldt, J., Weber, M. and Schaper-Rinkel, P. (2014). Innovation studies: Howaldt, J., Butzin, A., Domanski, D. and Kaletka, C. (2014). Theoretical approaches to

social innovation - A critical literature review. A deliverable project: “Social innovation: Driving force of social change”. *SI-DRIVE. Dortmund: Sozial-forschungsstelle*. 20 - 44.

29. Calder, B.J., Phillips, L.W. and Tybout, A.M. (1982). The concept of external validity. *The Journal of Consumer Research*. 240 - 244.
30. Camps, S. and Marques, P. (2014). Exploring how social capital facilitates innovation: The role of innovation enablers. *Technological Forecasting and Social Change*. 88. 325 - 348.
31. Casanueva, C. and Gallego, A. (2010). Social capital and innovation: An intra-departmental perspective. *Management Revue*. Vol. 21. No. 2. 135 - 154.
32. Caulier-Grice, J., Davies, A., Patrick, R. and Norma, W. (2012). Defining social innovation: A deliverable of the project: “The theoretical, empirical and policy foundations for building social innovation in Europe” (TEPSIE). European Commission – 7th Framework Programme, Brussels: European Commission, DG Research. 1 – 43.
33. Chell, E. (2007). Social enterprise and entrepreneurship: Towards a convergent theory of the entrepreneurial process. *International Small Business Journal*. Vol. 25(1). 5 – 26.
34. Chen, Y. and Zhou, X. (2017). Entrepreneurial self-efficacy and firms’ innovation behaviour: The negative mediating role of social capital. *Social Behaviour and Personality*. 45(9). 1553 - 1562.
35. Choi, N. and Majumdar, S. (2015). Social innovation: Towards a conceptualization. Technology and innovation for social change. *Springer India*. Chapter 2. 7 – 34.
36. Cloete, A. (2014). Social cohesion and social capital: Possible implications for the common good. *Verbal et Ecclesia*. 35(5). Art. 1331. 1 - 6.
37. Cunha, J., Benneworth, P. and Oliveira, P. (2015). Social entrepreneurship and social innovation: A conceptual distinction. *Handbook of Research on Global Competitive Advantage through Innovation and Entrepreneurship*. 1 - 22.
38. Dainiene, R. and Dagiliene, L. (2016). Measurement of social innovation at organisation’s level: Theoretical issues. *Economics and Business*. 96 - 103.
39. Dakhli, M. and de Clercq, D. (2004). Human capital, social capital and innovation: a multi-country study. *Entrepreneurship and Regional Development*. 16. 107 - 128.
40. Dawson, P., Scott, J.M., Thompson, J.L. and Preece, D. (2011). The dynamics of innovation and social capital in social enterprises: A relational sense-making perspective. In de Bruin, A. and Stangl, L. (eds) *Proceedings of the Massey University Social Innovation and Entrepreneurship Conference: Extending theory, integrating practice*. 177 - 191.
41. Davidsson, P. and Honig, B.L. (2003). The role of social and human capital among nascent entrepreneurs. *Journal of Business Venturing*. 18(3). 301 - 331.

42. Davies, A., Simon, J., Patrick, R. and Norman, W. (2012). Mapping citizen engagement in the process of social innovation. A deliverable of the project: “The theoretical, empirical and policy foundations for building social innovation in Europe” (TEPSIE), European Commission – 7th Framework Programme, Brussels: European Commission, DG Research. 1 - 50.
43. Dees, J.G. (1998). Enterprising nonprofits – What do you do when traditional sources of funding fall short? *Harvard Business Review*. 54 - 67.
44. Dees, J.G. (1998). The meaning of social entrepreneurship. *Graduate School of Business Stanford University.* 1 - 5.
45. Dees, J.G. and Anderson, B.B. (2003). For profit social ventures. Social Entrepreneurship. *International Journal of Entrepreneurship Education*. Vol. 2. 1 - 26.
46. Dees, G.T. and Lumpkin, G.G. (2001). Linking two dimensions of entrepreneurial orientation to firm performance: The moderating role of environment and industry lifecycle. *Journal of Business Venturing*. Vol. 16. 429 - 451.
47. Department of Trade and Industry. (2012). Integrated strategy on the development and promotion of co-operatives: Promoting an integrated co-operative sector in South Africa 2012 - 2022.
48. Desouza, K.C., Awazu, Y., Jha, S., Dombrowski, C., Papagari, S., Baloh, P. and Kim, J.Y. (2008). Customer-driven innovation. *Research Technology Management.* Vol. 51. Issue 3. 35 - 44.
49. Dobele, L. (2015). Factors which influence the development of social innovation in Latvia. *Economic Science for Rural Development*. No. 40. Jelgava, LLU ESAF. 226 - 238.
50. Doh, S. and Zolnik, E.J. (2011). Social capital and entrepreneurship: An exploratory analysis. *African Journal of Business Management*. Vol. 5(12). 4961 - 4975.
51. Doherty, B., Haugh, H. and Lyon, F. (2014). Social enterprises as hybrid organisations: A review and research agenda. *International Journal of Management Reviews*. Vol. 16. 417 – 436.
52. Drost, E.A. (2012). Validity and reliability in social science research. *Education Research and Perspectives*. Vol. 38(1). 105 - 123.
53. Du Preez, N. and Louw. L. (2008). A framework for managing the innovation process. *Management of Engineering and Technology*. Conference Paper. 1 - 13.
54. Dudwick, N., Kuehnast, K., Jones, V.N. and Woolcock, M. (2006). Analyzing social capital in context: A guide to using qualitative methods and data. *World Bank Institute*. 1 - 46.
55. Ecklinder-Frick, J., Ericsson, L.T. and Hallen, L. (2014). Multidimensional social capital as a boost or a bar to innovativeness. *Industrial Marketing Management*. Vol. 43. Issue 3. 460 - 472.

56. Elo, S., Kaariainen, M., Kanste, O., Polkki, T., Utriainen, K. and Kyngas, H. (2014). Qualitative content analysis: A focus on trustworthiness. *Sage Open*. 1 - 10.
57. European Commission. (2013). Guide to social innovation. *Regional and Urban Pol-icy*. 1 - 72.
58. European Commission. (2014). In-depth report: Social innovation and the environment. *Science for Environment Policy*. 1 – 41.
59. Fleming, L and Marx, M. (2006). Managing creativity in small worlds. *California Management Review*. Vol. 48. No. 4. 1 - 27.
60. Fountain, J.E. (1998). Social capital: Its relationship to innovation in science and technology. *Science and Public Policy.* Vol. 25. No. 2. 103 - 115.
61. Fukuyama, F. (2001). Social capital, civil society and development. *Third World Quarterly*. Vol. 22. No. 1. 7 - 20.
62. Fury, B. (2010). Social enterprise development in South Africa - creating a virtuous circle. Compiled for Tshikululu Social Investments. 1 - 16. www.tshikululu.org.za/up-loads/files/TSI_research_social_enterprise_2010.pdf.
63. Golafshani, N. (2003). Understanding reliability and validity in qualitative research. *The Qualitative Report.* Vol. 8. No. 4. 597- 607.
64. Granovetter, M. (1983). The strength of weak ties: A network theory revisited. *Sociological Theory.* Vol. 1. 201 - 233.
65. Greve, A. and Salaff, J.W. (2003). Social networks and entrepreneurship. *Entrepreneurship, Theory and Practice*. 28(1). 1 - 22.
66. Groot, A. and Dankbaar, B. (2014). Does social innovation require social entrepreneurship? *Technology Innovation Management Review*. 4(12). 17 – 26.
67. Grootaert, C., Narayan, D., Jones, V.N. and Woolcock, M. (2004). Measuring social capital: An integrated questionnaire. *World Bank Working Paper*. No. 18. 1 - 53.
68. Haigh, N. and Hoffman, A.J. (2012). Hybrid organisations: The next chapter of sustainable business. *Organisational Dynamics*. 41. 126 - 134.
69. Hancock, B., Ockleford, E. and Windridge, K. (2009). An introduction to qualitative research. *The NIHR RDS EM/YH*. 1 - 39.
70. Hart, T.G.B., Jacobs, P.T., Ramoroka, K.H., Mangqalaza, H., Mhula, A., Ngwenya, M. and Letty, B.A. (2014). Social innovation in South Africa's rural municipalities: Policy implications. *Human Science Research Council*. 1 - 6.
71. Hart, T.G.B., Ramoroka, K.H., Jacobs, P.T. and Letty, B.A. (2015). Revealing the face of social innovation. *South African Journal of Science*. Vol. 111. No. 9/10. Art. No. 2014-0126. 1 – 6.

72. Haugh, H. (2005). A research agenda for social entrepreneurship. *Social Enterprise Journal*. Vol. 1. Issue 1. 1 – 12.
73. Hawkins, R.L. and Maurer, K. (2010). Bonding, bridging and linking: How social capital operated in New Orleans following Hurricane Katrina. *British Journal of Social Work*. 40. 1777 - 1793.
74. Herschbach, D.R. (1995). Technology as knowledge: Implications for instruction. *Journal of Technology Education.* Vol. 7. No. 1. 31 – 42.
75. Hoogendoorn, B. and Pennings, E. (2010). What do we know about social entrepreneurship? An analysis of empirical research. *International Review of Entrepreneurship.* 8(2). 1 - 39.
76. Howaldt, J., Butzin, A., Domanski, D. and Kaletka, C. (2014). Theoretical approaches to social innovation - A critical literature review. A deliverable project: “Social innovation: Driving force of social change”. *SI-DRIVE. Dortmund: Sozial-forschungsstelle*. 20 - 44.
77. Howaldt, J. and Domanski, D. (2016). Social innovation: Towards a new innovation paradigm. *Mackenzie Management Review*. Special Edition. 17(6). 20 – 44.
78. Huddart, S. (2010). Patterns, principles and practices in social innovation. *The Philanthropist*. Vol. 23. No. 3. 1 - 24.
79. Hughes, C. (1997). Qualitative and quantitative approaches to social research. 1 -11. www2.warwick.ac.uk/fac/soc/sociology/staff/hughes/researchprocess/quantitative_and_qualitative-approaches.docx.
80. Inkpen, A.C. and Tsang, E.W.K. (2005). Social capital, networks and knowledge transfer. *The Academy of Management Review*. Vol. 30. No. 1. 146 - 165.
81. Inno AG, University of Manchester (MIOIR). (2015). Supply and demand side innovation policies: Annexes of first policy brief. *Prepared for the European Commission*. 1 - 89.
82. International Labour Organisation. (2016). Access to finance for social enterprises in South Africa: A scoping study. International Labour Organisation. 1 - 40.
83. Ismail, K., Sohel, M.H. and Ayuniza, U.N. (2012). Technology social venture: A new genre of social entrepreneurship. *Procedia – Social and Behavioural Sciences*. 40. 429 – 434.
84. Jaksic, M.L., Jovanovic, M. and Petkovic, J. (2015). Technology entrepreneurship in the changing business environment – A triple helix performance model. *Amfiteatru Economic*. 17(38). 422 – 440.
85. Jastrzebska, E. (2017). Engaging stakeholders as a condition of creating social in-novations. *Research papers of Wroclaw University of Economics.* No. 464. 57 – 68.

86. Kaderabkova, A. and Saman, S.M. (2013). Evaluation of social innovations – Their characteristics and impacts, cross county comparisons and implications for policy support. *Social Frontiers*. 1 – 17.
87. Kadir, M.A.B.A. and Sarif, S.M. (2016). Social entrepreneurship, social entrepreneur and social enterprise: A review of concepts, definitions and development in Malaysia. *Journal of Emerging Economies and Islamic Research.* Vol. 4. No. 2. 1 - 16.
88. Kaasa, A. (2007). Effects of different dimensions of social capital on innovation: Evidence from Europe at the regional level. *University of Tartu*. No. 56. 1 - 70.
89. Kay, A. (2006). Social capital, the social economy and community development. *Ox-ford University Press and Community Development Journal*. Vol. 41. No. 2. 160 - 173.
90. Khuntrakun, A. (2013). Process and dynamics of social innovation: Case studies of local initiatives in Northern Thailand. *Japan Social Innovation Journal*. Vol. 3. No. 1. 12 – 18.
91. Kirkman, D.M. (2012). Social enterprises: A multi-level framework of the innovation adoption process. *Innovation: Management, Policy and Practice*. Vol. 14(1). 143 - 155.
92. Kocziszky, G. and Somosi, M.V. (2016) Generating social innovation with knowledge engineering. *Procedia - Social and Behavioural Sciences.* Vol. 223. 167 - 174.
93. Krefting, L. (1991). Rigor in qualitative research: The assessment of trustworthiness. *The American Journal of Occupational Therapy.* Vol. 45. No. 3. 214 - 222.
94. Kronsbein, D., Meiser, D. and Leyer, M. (2014). Conceptualisation of contextual factors business process performance. *IMECS*. 1 - 6.
95. Landry, R., Amara, N. and Lamari, M. (2002). Does social capital determine innovation? To what extent? *Technological Forecasting and Social Change*. Vol. 69. 681 - 701.
96. Larson, L., Harlan, S.L., Bolin, B., Hackett, E.J., Hope, D., Kirby, A., Nelson, A., Rex, T.R. and Wolf, S. (2004). Bonding and bridging: Understanding the relationship between social capital and civic action. *Journal of Planning Education and Research*. 24. 64 - 77.
97. Leadbeater, C. (2001). The rise of the social entrepreneur. *Demos*. 1 - 87.
98. Leadbeater, C. (2007). Social enterprise and social innovation: Strategies for the next ten years. Cabinet Office. *Office of the Third Sector*. 1 - 17.
99. Leana, C. and van Buren, H.J. (1999). Organisational social capital and employment practices. *The Academy of Management Review*. 24(3). 538 - 555.
100. Lehtonen, M. (2004). The environment - social interface of sustainable development: capabilities, social capital, institutions. *Ecological Economics*. 49. 199 - 214.
101. Liao, J. and Welsch, H. (2005). Roles of social capital in venture creation: Key dimensions and research implications. *Journal of Small Business Management*. 43(4). 345 - 362.

102.Littlewood, D. and Holt, D. (2015). Social entrepreneurship in South Africa: Exploring the influence of environment. *Business Society.* 1 - 37.

103.Lollo, E. (2012). Toward a theory of social capital definition: Its dimensions and resulting social capital types. 14th World Congress of Social Economics. 1 - 30.

104.Luke, B. and Chu, V. (2013). Social enterprise versus social entrepreneurship: An examination of the 'why' and 'how' in pursuing social change. *International Small Business Journal.* 31(7). 764 - 784.

105.Luppicini, R. (2005). A systems definition of educational technology in society. *Educational Technology and Society.* Vol. 8(3). 103 – 109.

106.Mackenzie, N. and Knipe, S. (2006). Research dilemmas: Paradigms, methods and methodology. *Issues in Educational Research.* Vol. 16. No. 2. 193 - 205.

107.Madhooshi, M. and Samimi, M. H. J. (2015). Social entrepreneurship and social capital: A theoretical analysis. *American Journal of Economics, Finance and Management.* Vol. 1. No. 3. 102 - 112.

108.Mair, J. and Marti, I. (2006). Social entrepreneurship research: A source of explanation, prediction and delight. *Journal of World Business*. 41. 36 - 44.

109.Manzini, E. (2014). Making things happen: Social innovation and design. *Massachusetts Institute of Technology*. Vol. 30. No. 1. 57 - 66.

110.Marais, H.C. and Pienaar, M. (2010). Evolution of the South African science, technology and innovation system and development. *African Journal of Science, Technology, Innovation and Development.* Vol. 2. No. 3. 82 – 109.

111.Martin, R.L. and Osberg, S. (2007). Social entrepreneurship: The case of or definition. *Stanford Social Innovation Review*. 1 - 13.

112.Maticiuc, M. (2014). Top-down and bottom-up cluster initiatives in Europe. *Annals of the University of Petrosani, Economics.* 14(1). 205 - 212.

113.Mayer, R.C., Davis, J.H. and Schoorman, F.D. (1995). An integrative model of organisational trust. *The Academy of Management Review*. Vol. 20. No. 3. 709 - 734.

114.Mendes, A., Batista, A., Fernandes, L., Macedo, P., Pinto, F., Rebelo, L., Ribeiro, M., Ribeiro, R., Sottomayor, M., Tavares, M. and Verdelho, V. (2012). Barriers to social innovation. A deliverable of the project "The theoretical, empirical and policy foundations for building social innovation in Europe" (TEPSIE), *European Commission - 7th Framework Programme, Brussels: European Commission, DG Research*. 1 - 61.

115.Milotay, N. and Liva, G. (2017) Fostering social innovation in the European Union. *European Parliamentary Research Service*. 1 – 12.

116.Moran, P. (2005). Structural vs relational embeddedness: Social capital and managerial performance. *Strategic Management Journal*. 26. 1129 - 1151.

117.Morrow, S.L. (2005). Quality and trustworthiness in qualitative research in counselling psychology. *Journal of Counselling Psychology.* Vol. 52. No. 2. 250 – 260.

118.Mulgan, G. (2006). The process of social innovation. *Innovations Journal*. 145 - 162.

119.Mulgan, G., Tucker, S., Rushanara, A. and Sanders, B. (2007). Social innovations: What it is, why it matters and how it can be accelerated. *Skill Centre for Social Entrepreneurship*. 1 - 51.

120.Mumford, M.D. (2002). Social innovation: Ten cases from Benjamin Franklin. *Creativity Research Journal*. Vol. 14. Issue 2. 253 – 266.

121.Murray, R., Caulier-Grice, J. and Mulgan, G. (2010). Social innovator series: Ways to design, develop and grow social innovation - The Open Book of Innovation. NESTA. *The Young Foundation*. 1 - 220.

122.Mutekwe, E. (2012). The impact of technology on social change: A sociological perspective. *Journal of Research in Peace, Gender and Development*. Vol. 2(11). 226 – 238.

123.Nahapiet, J. and Ghoshal, S. (1998). Social capital, intellectual capital, and the organisational advantage. *Academy of Management Review*. Vol. 23. No. 2. 242 - 266.

124.Nasruddin, E. and Misaridin, N.A.F. (2013). Innovation for a social enterprise business model: An analysis of key success factors. Organisational Innovation Strategies. *International Journal of Organisational Innovation*. 149 - 157.

125.National Endowment for Science, Technology and for the Arts (NESTA). (2007). Innovation in response to social challenges. Policy Briefing, SC/03. *NESTA Policy and Research Unit*. 1 – 4.

126.National Endowment for Science, Technology and for the Arts (NESTA). (2008). Social innovation: New approaches to transforming public services. Policy Briefing, SI/18. *NESTA Policy and Research Unit*. 1 – 4.

127.Neumeier, S. (2017). Social innovation in rural development: Identifying the key factors of success. *The Geographical Journal*. Vol. 183(1). 34 - 46.

128.Nieto, M. (2004). Basic propositions for the study of the technological innovation process in the firm. *European Journal of Innovation Management.* Vol. 7. No. 4. 314 – 324.

129.Nikula, J., Kopoteva, I., Niska, M., Butkeviciene, E. and Granberg, L. (eds) (2011). Social innovations and social partnerships in Finland, Russia and Lithuania. *Finnish Centre for Russian and Eastern European Studies*. 1 - 251.

130. Nishantha, B. and Kawamura, Y. (2011). The role of human and social capital on small enterprise growth: Evidence from Sri Lanka. *Ryukoku Journal of Economic Studies*. Vol. 51. No. 1. 69 - 89.
131. O'Keeffe, J., Buytaert, W., Mijic, A., Brozovic, N. and Sinha, R. (2015). The use of semi-structured interviews for the characterization of farmer irrigation practices. *Hydrology and Earth System Sciences*. 20. 1911 – 1924.
132. Organisation for Economic Cooperation and Development. (2007). Science, technology and innovation: Recent policy development in South Africa. 1 - 11. www.oecd.org/science/inno/2112129.pdf.
133. Organisation for Economic Co-operation and Development. (2013). Policy brief on social entrepreneurship – Entrepreneurial activities in Europe. *European Commission.* 1 – 17.
134. Partanen, J., Moller, K., Westerlund, M., Rajala, R. and Rajala, A. (2008). Social capital in the growth of science science-and-technology-based SMEs. *Industrial Marketing Management*. 37. 513 - 522.
135. Peredo, A. and McLean, M. (2005). Social entrepreneurship: A critical review of the concept. *The Journal of World Business*. 1 - 29.
136. Phillips, W., Lee, H., James, P. and Ghobadian, A. (2015). Social innovation and social entrepreneurship: A systematic review. *Group and Organisation Management*. 40(3). 428 - 461.
137. Phills, J.A., Deiglmeier, K. and Miler, D.T. (2008). Rediscovering social innovation. *Stanford Social Innovation Review.* 34 - 43.
138. Pinsent, M.C. (2012). Understanding social innovation and the need for resiliency: The volunteer and non-profit sector. *School of Public Administration*. University of Victoria. 1 - 77.
139. Pisano, U., Lange, L. and Berger, G. (2015). Social innovation in Europe: An overview of the concept of social innovation in the context of European initiatives and practices. *European Sustainable Development Network.* No. 36. 1 - 26.
140. Ponelis, S.R. (2015). Using interpretive qualitative case studies for exploratory research in doctoral studies: A case of information systems research in small and medium enterprises. *International Journal of Doctoral Studies.* Vol. 10. 535 – 550.
141. Portes, A. (1998). Social capital: Its origins and applications in modern sociology. *Annu. Rev. Sociol*. 24. 1 - 24.
142. Praszkier, R., Nowak, A. and Zablocka-Bursa, A. (2009). Social capital built by social entrepreneurs and the specific personality traits that facilitate the process. *Psychology Spoleczna*. Tom 4. 1 - 2(10). 42 - 54.

143.Preskill, H. and Beer, T. (2012). Evaluating social innovation. *Center for Evaluation Innovation*. 1 - 24.
144.Ramani, S.V., SadreGhazi, S. and Gupta, S. (2017). Catalysing innovation for social impact: The role of social enterprises in the Indian sanitation sector. *Technological Forecasting and Social Change*. Vol. 121. 216 - 227.
145.Rattner, J. (2014). Five ways social entrepreneurs use technology to increase their impact. *Forbes*.
146.Robbins, P. and O' Gorman, C. (2016). Innovation Processes: Do they help or hinder new product development outcomes in Irish SMEs*. Irish Journal of Management*. 35(1). 88 - 103.
147.Rowlands, B.H. (2005). Grounded in practice: Using interpretative research to build theory. *The Electronic Journal of Business Research Methodology.* Vol. 3. Issue 1. 81 – 92.
148.Schuller, T. (2001). The complementary roles of human and social capital. *Isomer: Canadian Journal of Policy Research*. Vol. 2. No. 1. 1 - 28.
149.Shane, C. and Venkataraman, S. (2000). The promise of entrepreneurship as a filed of research. *Academy of Management Review*. Vol. 25. No. 1. 217 - 226.
150.Shenton, A.K. (2004). Strategies for ensuring trustworthiness in qualitative research projects. *Education for Information*. 22. 63 - 75.
151.Sinkovics, R.R., Penz, E. and Ghauri, P.N. (2008). Enhancing the trustworthiness of qualitative research in international business. *Management International Review.* 48(6). 689 – 714.
152.Scheiber, L. (2016). Social capital and innovation in the third sector. *Paper submitted to the 12th International conference of the International Society for Third Sector Research, Ersta Scondal University Collee, Stockholm, Sweden*. 1 - 25.
153.Schuller, T. (2003). The complementary roles of human and social capital. *Canadian Journal of Policy Research*. 1 - 18.
154.Sharir, M. and Lerner, M. (2006). Gauging the success of social ventures initiated by individual social entrepreneurs. *Journal of World Business*. Vol. 46. 6 - 20.
155.Sobel, J. (2002). Can we trust social capital? *Journal of Economic Literature*. Vol. XL. 139 - 154.
156.Soni, P., Sheikh, A. and Karodi, M. (2014). Social entrepreneurship and social innovation: Reclaiming sustainable development in SA. *Regent Business School*.
157.Smith, W. and Darko, E. (2014). Social enterprise: Constraints and opportunities - evidence from Vietnam and Kenya. *ODI Report*. 1 - 33.

158. Steinman, S. (2010). An exploratory study into factors influencing an enabling environment for social enterprises in South Africa. *Compiled for International Labour Office*. 1 - 164.
159. Staurt, L. (2013). The South African nonprofit sector: Struggling to survive, needing to thrive. 1 - 4. http://www.ngopulse.org/article/south-african-nonprofit-sector-struggling-to-survive-needing-to-thrive.
160. Tanimoto, K. (2012). The emergent process of social innovation: Multi-stakeholders perspective. *Int. J. Innovation and Regional Development*. Vol. 4. No. 3/4. 267 – 280.
161. Teddlie, C. and Yu, F. (2007). Mixed methods sampling: A typology with examples. *Journal of Mixed Methods Research.* Vol. 1. No. 1. 77 – 100.
162. TEPSIE. (2014). Social innovation theory and research: A guide for researchers. Social Innovation Europe: A deliverable of the project. The theoretical, empirical and policy foundations for building social innovation in Europe. *European Commission - 7th Framework Programme*. No. 4. 1 - 46.
163. Thomas, D.R. (2006). A general inductive approach for qualitative data analysis. *American Journal of Evaluation.* 1 - 11.
164. Thompson, M. (2018). Social capital, innovation and economic growth. *Journal of Behavioral and Experimental Economics*. 73. 46 - 52.
165. Townsend, D.M. and Hart, T.A. (2008). Perceived institutional ambiguity and the choice of organisational form in social entrepreneurial venture. *Entrepreneurship Theory and Practice*. 1042 – 2587.
166. Turker, D. and Vural, C.A. (2017). Embedding social innovation process into the institutional context: Voids or supports. *Technological Forecasting and Social Change*. Vol. 119. 98 - 113.
167. United Nations. (2017). The Sustainable Development Goals Report. *United Nations. New York.* 1 - 64.
168. Urama, K.C. and Acheampong, E.N. (2013). Social innovation creates prosperous societies. *Stanford Social Innovation Review.* 9 - 11.
169. Urban, B. and Shree, S. (2012). Internationalisation processes and links with capital factors: The case of South Africa. *Business: Theory and Practice*. Vol. 13(4). 292 - 303.
170. van Oorschot, W., Arts, W. and Gelissen, J. (2006). Social capital in Europe: Measurement and social and regional distribution of a multifaceted phenomenon. *Acta Sociologica*. Vol. 49. No. 2. 149 - 167.
171. Wasab, S.A., Rose, R.C. and Osman, S.I.W. (2012). Defining the concepts of technology and technology transfer: A literature analysis. *International Business Research.* Vol. 5. No. 1. 61 – 71.

172.Wasai, S. and Nouman, M. (2016). Actors in the social innovation process: The case of mobile courts in Khyber Pakhtunkhwa. *Business and Economic Review.* Vol. 8. Issue 1. 1 - 18.

173.Watters, K., Willington, L., Shutte, T. and Kruh, R. (2012). Social entrepreneurship - individuals with vision hold unlimited potential to alleviate poverty: The UnLtd South Africa model. Towards Carnegie III. Conference paper. 1 - 12.

174.Weber, C., Wallace, J. and Tuschke, A. (2013). Social capital, social innovation and social impact. *Frontiers of Entrepreneurship Research*. Vol. 33. Issue 18. Article 5. 1 - 15.

175.Weerawardena, J. and Sullivan Mort, G. (2012). Competitive strategy in socially entrepreneurial nonprofit organisations: Innovation and differentiation*. Journal of Public Policy and Marketing*. Vol. 31(1). 91 - 101.

176.Westlund, H. and Gawell, M. (2012). Building social capital for societal entrepreneurship. *Annals of Public and Cooperative Economics*. 83(1). 101 - 116.

177.Widen-Wulff, G. and Ginman, M. (2004). Explaining knowledge sharing in organisations through the dimensions of social capital. *Journal of Information Science*. 30(5). 448 - 458.

178.Williams, C. (2007). Research methods. *Journal of Business and Economic Research*. Vol. 5(3). 65 - 72.

179.Wolkowinski, P. (2016). State of the art on social innovation. Boosting Social Innovation. *European Union*. 1 - 31.

180.Woolcock, M. (1998). Social capital and economic development: Toward a theoretical synthesis and policy framework. *Theory and Society*. 27. 151 - 208.

181.Woolcock, M. and Narayan, D. (2000). Social capital: Implications for development theory, research and policy. *The World Bank Research Observer*. Vol. 15. No. 2. 225 - 249.

182.Yang, K. (2007). Individual social capital and its measurement in social surveys. *Survey Research Methods*. Vol. 1. No. 1. 19 - 27.

183.Yates, J. and Leggett, T. (2016). Qualitative research: An introduction. *Radiologic Technology.* Vol. 88. No. 2. 225 – 231.

184.Yin, R.K. (2009). Case study research: Design and methods. *Applied Social Research Methods Series. Sage Publications.* Vol. 5. 1 - 53.

APPENDIX A: RESEARCH TIME PLAN

Item	June 2017	July 2017	August 2017	September 2017	October 2017	November 2017	December 2017	January 2018	February 2018
Finalise research proposal									
Research panel presentation									
Revise proposal									
Collect data									
Capture and clean data									
Analyse data									
First draft report									
Submit final report									

APPENDIX B: CONSISTENCY MATRIX

Problem statement: The link between social capital, innovation process and social enterprises is conceptually under-developed (Dawson *et al*, 2011). It is submitted that such an exploration of the extent of the influence of stakeholders on the innovation intentions and technological developments of social enterprises is necessary and crucial as the products and services produced by these enterprises have the potential for wide sustainable societal impact.

Research question	**Literature review**	**Sources of data**	**Methodology and data collection**	**Analysis method**
Are technology-based social enterprises socially innovative?	Caulier-Grice *et al*, (2012)	Founder	Semi-structured in-depth interviews	Inductive analysis using descriptive methods
Do technology-based social enterprises follow the innovation process?	Mulgan (2006)	Founder	Semi-structured in-depth interviews	Inductive analysis using descriptive methods
In which way do the dimensions of social capital influence the social innovation process of technology-based social enterprises	Nikula, Kopoteva, Niska, Butkeviciene, and Granberg (2011); Kaasa (2007)	Founder	Semi-structured in-depth interviews	Inductive analysis using descriptive methods

APPENDIX C: PARTICIPATION INVITATION LETTER

SOCIAL CAPITAL AND THE PROCESS OF SOCIAL INNOVATION: A CASE STUDY OF TECHNOLOGY-BASED SOCIAL ENTERPRISES IN SOUTH AFRICA

Dear Sir/Madam,

My name is Rebotile Matsimela (Student Number: 305193), a Masters in Management in Entrepreneurship and New Venture Creation student at the University of Witwatersrand Business School. I am conducting research to understand influence of social capital on the process of social innovation of technology-based social enterprises in South Africa. My research title is "Social capital and the process of social innovation: A case study of technology-based social enterprises in South Africa".

As a social enterprise operating in South Africa, you are invited to participate in my re-search through semi-structured in-depth one-on-one or telephonic interviews at your convenience. The purpose of this interview is to collect information about the process you undertake in creating innovations that help the less privileged in society. This study will seek to identify and understand the influence that your network has on the generation, development, scaling and evolution of your social innovation endeavours.

What will happen if you choose to participate in the research?

1. The research does not present any risk or harm to you or your organisation.
2. Your participation is voluntary and you can withdraw at any time without penalty
3. You will be requested to sign a consent form or provide verbal consent indicating that you are voluntarily agreeing to participate in the research.
4. Your answers are strictly confidential and there are no right or wrong answers.
5. This research is for academic purposes and the results of the study will be published in my research thesis and journal articles.

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

Your participation is deeply appreciated,

Researcher: Rebotile Matsimela (Student Number: 305193)

Email: rebotilematsimela@gmail.com
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Supervisor: Professor Boris Urban
Email: boris.urban@wits.ac.za
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APPENDIX D: RESEARCH INSTRUMENT

Demographics

1. What is the name of your organisation?
2. What is your position in the organisation?
3. In which sector does your organisation operate in?
4. In which geographical area/s does your organisation operate?
5. What is the number of years the organisation has been in operation?
6. How many employees (full-time, part-time and/or volunteers) does your organisation employ?

Social enterprise

1. How would you describe your organisation?
2. How would you describe your business model?

Social innovation

1. How would you describe your product?
2. How did the idea of your innovation come about?
3. Who influenced your idea?
4. How did you develop your innovation?
5. Who influenced the development of your idea?
6. Would you agree that your organisation is in the scaling phase?
7. If so? How have you scaled?
8. Who has helped you scale?
9. How have people influenced the way your innovation has evolved?

Technology

1. In your opinion, what is the role of technology in delivering or achieving your social mission?

APPENDIX E: ETHICS CLEARANCE LETTER

Ethical clearance letter to be included after the research panel report.