

# **The Role of Digital Technology in Scaling Social Impact in South Africa**

A Dissertation

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## Abstract

*Social entrepreneurship is an important contributor to South Africa's business environment and social fabric, however, scaling social impact continues to be a challenge. To date, very limited studies have considered scaling strategies that social enterprises in South Africa use to grow their impact. In particular, no academic work has been done on how digital technology impacts on these scaling strategies. This thesis uses a descriptive case study method to examine the scaling strategies of 21 social enterprises and the role of digital technology on their strategies. The key findings of this research have been summarised into top ten key learnings that can help and guide social enterprises in building scaling strategies for social impact in South Africa.*

Keywords: Social Entrepreneurship, Social Innovation, Social Impact, Scaling Strategies, Digital Technology, South Africa

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## List of Abbreviations, Acronyms and Definitions:

AIDS: Acquired Immunodeficiency Syndrome .....	17
ART: Antiretroviral Therapy .....	17
B2B2C: Business-to-Business-to-Consumer .....	122
BSc: Bachelor of Science (B.Sc. degree).....	17
CAQDAS: Computer Assisted Qualitative Data Analysis Software .....	75
COO: Chief Operating Officer .....	18
CSI: Corporate Social Investment .....	120
CSR: Corporate Social Responsibility .....	120
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DE: Digital Ecosystem .....	51
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EE: Entrepreneurial Ecosystem .....	51
EIC: European Innovation Council .....	64
EUA: Embedded Unit of Analysis .....	60
FHI: Family Health International.....	19
GDP: Gross domestic product .....	51
GEM: Global Entrepreneurship Monitor .....	21
Gibs: Gordon Institute of Business Science .....	64
GSMA: The Groupe Speciale Mobile Association .....	64
HIV: Human Immunodeficiency Virus.....	17
IBM: The International Business Machines Corporation .....	20
ICT: Information and Communications Technology .....	27
ICT4D: Information and Communications Technologies for Development .....	52
IDC: The Industrial Development Corporation of South Africa Ltd.....	65
IoT: Internet-of-Things .....	18
IPA: Innovation Prize Africa .....	64
IT: Information Technology .....	48
ITU: The International Telecommunication Union .....	64
MEA: Middle East and Africa .....	64
MEng: Master of Engineering.....	18

MIT: Massachusetts Institute of Technology.....	64
M-Pesa: Branchless Banking Service - Mobile phone-based money transfer service.....	22
MPhil: Master of Philosophy .....	20
MTN: Mobile Telephone Network (South African cellular service provider).....	64
NCD: Non-Communicable Diseases.....	17
NDP: National Development Plan.....	23
NECT: National Education Collaboration Trust.....	93
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## Chapter 1: Introduction

In this introductory chapter, I start off by sharing my personal journey and background that led me to do an MPhil in Inclusive Innovation and my personal motivation for the topic of scaling strategies for social impact in digital technology. I also provide the research rationale, the South African Context for Social Entrepreneurship, research objectives and an outline for the rest of the thesis.

### 1.1: Personal Background and Motivation:

On the 4th of January 2014, I was diagnosed with tuberculosis (TB). Like millions of South Africans, I did not have private medical insurance (medical aid) and started my 6-month treatment cycle collecting chronic medication at my local public clinic at Bophelong Township in Vanderbijlpark. Vanderbijlpark an industrial town situated on the banks of the Vaal River in Gauteng Province. A compounding factor for me personally, was that my grandmother had died of TB a couple of years prior, and I was determined not to become a victim of this disease.

I later discovered that my biggest challenge was not my disease, my biggest challenge was that I was losing over 3 hours due to long queues in the public healthcare facility every time I needed to collect my treatment. Other patients also had to wait long hours, resulting in them missing work just to collect their medicine. Long waiting times for chronic medication collection in black communities are a big issue for chronic adherence and it felt as if I was being punished for wanting to manage my chronic condition.

South Africa has the world's biggest antiretroviral therapy (ART) programme for patients living with HIV and AIDS, with an estimated 7.4 million people living with HIV (UNAIDS, 2018). Across Africa, there's been a steady increase in the number of patients with non-communicable diseases (NCDs), such as cardiovascular diseases, diabetes and asthma, which impose a large and growing health burden on developing countries. Southern Africa has an estimated 22,3 million people requiring chronic therapy monthly (UNAIDS, 2018). A patient's experience tends to be one of long waiting times, typically above 3.5 hours just to collect repeat treatment. This poses potential adherence barriers, which may lead to poor health outcomes and places a strain on the patients in terms of transport costs and loss of income.

I felt deeply frustrated by my experience and got curious about what can be done and how I can play an active role in solving this challenge. My entry point into systems change work in public healthcare started in 2015 with me visiting clinics, engaging with other patients, nurses, and healthcare officials, and really paying attention to why this problem persists using a design thinking framework. I had just closed a technology startup in the logistics space that failed to find product-market fit and was in search of something to channel my entrepreneurial energy into.

Leading to this life juncture, I graduated from the University of Cape Town with a BSc in Electrical Engineering in 2010 and went on to join the steel manufacturing industry as an

automation engineer for the early part of my working career. I later took up an operations management role working as a technical assistant to the COO of ArcelorMittal while also completing an MEng in Industrial Engineering at the University of Witwatersrand (Wits) before attempting a technology venture in the logistics industry with a particular focus on last-mile delivery.

I turned to social entrepreneurship in search of purpose, meaning and impact in my career. I enjoyed the first five years of my engineering career and the technical nature but had a sense that something was missing. In the latter eight years of my working career, I've developed a passion for nurturing the social entrepreneurial culture and have invested in the development and adoption of smart technologies in the healthcare industry.

My TB experience motivated me to become a social entrepreneur and take a product innovation approach aimed at inspiring patient-centric reform in healthcare equity for Southern Africa. I founded Technovera in 2016 as a social enterprise focused on technology inclusion with the aim of improving the last mile for chronic medication access in Southern Africa. Using my engineering (electrical and industrial) and manufacturing background, I designed and developed Pelebox, a Smart Dispensing Locker System that enables patients to collect their repeat chronic medication in under 30 seconds instead of waiting hours in queues at public-clinics. I set out to solve a problem that had affected me personally, leveraging the privilege of my acquired skills to create and inspire social change for patients.

How it works is that pre-packed medication for a particular patient is loaded into a smart locker, and the system then sends an SMS with a one-time-pin (OTP) to the patient. The patient would then come to a collection unit, and authenticate themselves using a one-time-pin (OTP) together with their cellphone number. A cubicle that has their medication would then pop open, they collect and can be on their way. This social innovation leverages the power of IoT (internet-of-things) through Smart Locker Devices in public healthcare to remotely track medication collection and treatment compliance while automating visibility on patient behaviour and patient outcome.

My idea was to reduce waiting times by introducing digital technology that can serve the patient better, with dignity and within the context of 4th Industrial Revolution. By increasing patient convenience, Pelebox offers a solution to the increasing problem of patient adherence to chronic medication, leading to poor health outcomes and straining the healthcare system.

My personal mission is to develop, promote, and scale inclusive technologies to solve challenges of access to healthcare in Southern Africa. Smart lockers work in African countries where national health ministries need to reach more people but are limited by the number of traditional healthcare facilities, staff shortages and higher patient volumes.

In 2017, while running the first pilot test in a clinic in Mamelodi township within the City of Tshwane, I became curious about what it would take to scale this social innovation beyond just

my local community at the time. I started looking for scaling strategies that worked well for social enterprises in South Africa.

The following questions occupied my mind at that stage of my entrepreneurial journey:

1. Who funds the scaling phase of social innovation in South Africa?
2. How can I grow the reach of my social innovation to impact more people?
3. How would my scaling strategy need to change when I grow into other African markets?
4. How have others developed scaling strategies for social innovations?
5. How do I even go about developing a scaling strategy?
6. Digital technology has been a disruptor for traditional business, and technology entrepreneurship has become sexy, but how does positioning within this trend help in scaling social impact?
7. What are the challenges that I need to anticipate in growing a social innovation?
8. Who are the stakeholders that impact how I develop the scaling strategies?
9. What are the enablers that exist within the social entrepreneurial community?

By chance, I met another social entrepreneur innovating in the education sector who shared how they were building their scaling strategy. He was enrolled for the MPhil in Inclusive Innovation and recommended the academic program due to its ability to provide me with a rigorous approach to my enquiry as a practitioner. While researching the course, I came across the Bertha Centre and was drawn to the type of work they did. I loved the idea of learning about scaling strategies for social impact from the top social entrepreneurs in South Africa to inform my own Journey and help shape my answers. I decided to enrol in the MPhil in Inclusive Innovation with a scholarship award from the Bertha Centre for Social Innovation and Entrepreneurship.

My professional curiosity, which led me on this MPhil journey, was rewarded with the rich, detailed, informative and transformative knowledge gained from the contact sessions and social entrepreneurial founders I met during this thesis research interview. I gained insights on how to build a scaling strategy for my social enterprise while doing the analysis phase. The resulting scaling strategy moved Pelebox from operating in three communities to 64 communities in 24 months. I was living the praxis model associated with the MPhil. I gained success as a practitioner from this endeavour. I was inspired to finish this thesis write-up to guide other social innovation practitioners in their journey of developing scaling strategies for social impact.

Technovera has been working with The Aurum Institute, Health Systems Trust, Anova Health Institute, FHI 360, the Gates Foundation, the City of Tshwane, the City of Ekurhuleni, City of eThekweni, the National Department of Health in South Africa and the Ministry of Health and Social Services in Namibia on reducing the average time patients spent in healthcare facilities. Thus far, Technovera has reached over 440,000 patient collections, scaled to 96 communities, and the organisation is impacting 37 000 patients per month with an average collection duration of 22 seconds. 3.5 hours to 22 seconds = No more queues.

I was also selected as an Ashoka Fellow and an Echoing Green Fellow while doing my practitioner work along with this academic research. Pelebox Smart Lockers was chosen for Time Magazine's Best 100 Global Inventions of 2019. This MPhil Journey continues to influence the strategic work for how I am building out Technovera as a social enterprise.

My personal ambition is to scale Pelebox and other future social innovations to reach 10,000 health facilities in townships and peri-urban and rural communities to serve and impact 10 million people in the next 20 years. It is my life's mission to become an active system-change practitioner, creating value within the social impact ecosystem in Southern Africa.

## 1.2: Research Rationale and Motivation

Charity is out, and social entrepreneurship is the new buzzword (Enterprising Oxford, 2022). Social entrepreneurship is an emerging social phenomenon gaining tangible traction for its ability to tackle complex social and environmental problems against a backdrop of global sustainability challenges (Duncan-Horner, Farrelly and Rogers, 2021). Social entrepreneurs are becoming the rockstars of the millennial generation (Vitanova, 2011). Searching for purpose and meaning has a stronger appeal than building the next IBM or Microsoft. It is becoming commonplace to see news feeds titled "40+ blogs on social innovation, impact entrepreneurship, and social enterprise you should check out" or "15 podcasts for social entrepreneurs". Social Entrepreneurship for Dummies was published in 2010 and has been in circulation for over 13 years (Durieux and Stebbins, 2010). This popularity and trendiness are strongly linked to the rise of the millennial generation (Schatz, 2016).

Social enterprises are organisations that have identified a specific social problem and alleviated it using innovative, market-oriented approaches (Weber and Kröger, 2015). One aspect that social enterprises have in common is the drive to achieve as much social impact as possible through their innovative solution, thereby reducing the problem being addressed measurably and noticeably (Weber and Kröger, 2015). These social enterprises also focus on designing operational models that are robust and financially sustainable in order to realise the social mission over the long term (Weber and Kröger, 2015). This common desire to reach more people makes scaling strategies for social impact a relevant topic.

The academic community has a contribution to make to the conversation on the social impact landscape but is lagging considerably behind actual practice (David Littlewood and Holt, 2015). Zooming into the social impact investment conversation, a landscape review of social and sustainable finance finds that between 2009 and 2015, 73 academic papers have been identified, compared to 261 practitioner reports (Daggers and Nicholls, 2016), which indicates that the conversation is practitioner dominated.

Globally, prevalence rates of social entrepreneurship indicate that younger people are answering the call of social problems and leading the charge for change (Bosma *et al.*, 2015).

Between the ages of 18 and 34 years, there is more representation of nascent<sup>1</sup> social entrepreneurs than nascent commercial entrepreneurs in four of the world's regions, and these are the Middle East and North Africa, Sub-Saharan Africa and Western Europe based on research by Global Entrepreneurship Monitor (GEM) on social entrepreneurship activity globally (Bosma *et al.*, 2015).

The GEM study on social entrepreneurship globally was based on interviews with 167 793 adults in 58 economies in 2015 and highlights that concerning young people operating initiatives, organisations, or activities, there are more social entrepreneurs than commercial entrepreneurs in every global region except for Latin America and the Caribbean (Bosma *et al.*, 2015). Loosely translated, this means that more youth are attempting to figure out how to build social ventures instead of commercial ventures. It is also a gender-neutral space with an estimated 55% male and 45% female representation compared to the 2:1 gender gap found in the commercial entrepreneurial activity found in some economies (Bosma *et al.*, 2015).

Interest in social entrepreneurship is growing from all fronts, and this applies to the impact investor community, corporations, academic institutions, and foundations supporting individuals trying to solve complex global social problems. A key sub-area in the social impact narrative at the heart of this research is scaling social impact.

Because social entrepreneurial organisation exists to eradicate a social problem, their organisation's success in this endeavour would need to be replicated and scaled to reach other communities. The scaling of social impact has been established as an essential issue in social entrepreneurship, and success in a localised setting needs to be scaled to other regions to reach more people experiencing the targeted social injustice (Bloom and Smith, 2010).

The conversation on scaling social impact has been framed from lenses that investigate success case studies (mostly in Europe and India) (Chowdhury and Santos, 2010; Weber, Kröger and Lambrich, 2012; Weber and Kröger, 2015) and derive factors that inhibit scaling, conditions that lead to success in scaling social impact and present a framework for others to draw on (Scheuerle and Schmitz, 2016).

To date, the field of social entrepreneurship has dedicated relatively little theoretical and empirical work to the study of scaling of social impact, and the limited theoretical and empirical work is regrettable since the scaling of a social innovation offers the potential to greatly expand the social value of the innovation to a greater number of beneficiaries (Bloom and Smith, 2010). In this way, it is arguably one of the most, if not the most, important dependent variables in the field of social entrepreneurship (Bloom and Smith, 2010).

In the last 30 years, the infusion of new digital technologies such as mobile computing, cloud computing, social media, 3D printing, data analytics and blockchain into various aspects of innovation and entrepreneurship has transformed the nature of uncertainty inherent in

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<sup>1</sup> Nascent refers to the process of new venture creation

entrepreneurial processes and outcomes (Nambisan, 2017). Digitization of products and services allows for greater flexibility by separating function from form and content from medium (Henfridsson and Lyytinen, 2010). Social entrepreneurs can exploit these new possibilities by building new types of scalable social innovations in the same way traditional commercial entrepreneurs have leveraged digital technology.

The global digital technology trends (of which mobile technology is a big component) have been leveraged by commercial entrepreneurs to build businesses that have scaled over a short time, reaching more people in different markets. Popular examples of Facebook, Uber, Twitter, Airbnb, LinkedIn, Skype and many more have shown large-scale reach for commercial digital technologies with mobile as a robust engagement platform. As a result of the digital technology revolution and massive growth of smartphone usage, over 66% of the world's population (4.92 billion) is using mobile phones, and over half of them are using social media (Wan *et al.*, 2019). Considering the scale, growth and reach of leading platforms like WhatsApp, with 2.0 billion active users in 14 years and WeChat, with 1.263 billion monthly active users in 12 years (Statista, 2022), I plan to discuss if digital technologies can be positioned to facilitate social impact at scale.

Taking an example from the African Continent, M-Pesa is a well-known success story and positioned itself as one of Africa's most prominent mobile payment solutions, initially aimed at banking the 'unbanked' across the continent (Abdulrehman, 2015). This digital technology innovation has grown to reach 30 million monthly active users in Kenya as it celebrates 15 years (Safaricom, 2022). The scale and success of M-Pesa are examples of reaching through the use of digital technology to provide value. Perhaps most visible are the rise of platform technologies, big data, and concerns about a new era of monopolies (Pfothenhauer *et al.*, 2022).

Despite this contemporary significance of digital technology, existing research in entrepreneurship (and, by extension, in social entrepreneurship) has largely neglected the role of digital technologies in entrepreneurial pursuits and scaling social impact (Nambisan, 2017). A limited effort has been made to provide cases and theorize on the role of special aspects of digital technology in shaping scaling strategies for social impact.

## 1.3: Research Context and Setting

Post-Apartheid, the South African government committed itself to building the “Rainbow Nation” and dealing with the social, economic, political transformation and development of South Africa (David Littlewood and Holt, 2015). However, the country continues to be plagued by high social inequality (63 on the Gini Index) and chronic unemployment of 33,9% (Statistics South Africa, 2022). Based on Gini coefficients<sup>2</sup> of consumption (or income) per capita, South Africa, the largest country in SACU, is the most unequal country in the world, ranking first among 164 countries in the World Bank’s global poverty database (The World Bank, 2022).

The government's National Development Plan (NDP) has identified the SMME sector as a vehicle for addressing job creation, economic growth, and equity, and committed itself to helping to create an environment where businesses can get on with their job (Herrington and Kew, 2016).

South African early-stage entrepreneurs are considerably more innovative than their African counterparts, while the established entrepreneurs display relatively high levels of strong international orientation, with almost a quarter of entrepreneurs reporting that 25% or more of their revenue comes from global sales (Herrington and Kew, 2016). In a study that evaluates four cases of social entrepreneurs in South Africa, Kobus Visser highlights that social entrepreneurship acts as socially and economically stabilising forces for improving the quality of life in the communities they serve (Visser, 2011). Due to South Africa's Apartheid history, socio-economic inequality, and record-breaking unemployment rate, social enterprises play an essential role (Esau and Tengeh, 2022).

On perception about social entrepreneurship, South Africa ranks high, with about 60% of the country acknowledging awareness of individuals pursuing social change through entrepreneurship; this is the third highest globally (Herrington and Kew, 2016). Despite the positive perception, South Africa has the lowest average prevalence of individuals who are currently leading and operating social entrepreneurial activity or currently in the start-up phase of a social venture in the Sub-Sahara African category, and this compares South Africa to Botswana, Cameroon and Senegal (Bosma *et al.*, 2015). This could be that South Africans are good at celebrating success stories, but this does not translate to the activation of social entrepreneurship on the ground.

Based on The Global Competitiveness Report, South Africa has been classified as one of the Efficiency-Driven Economies (EDEs) (World Economic Forum, 2011). These are characterized by higher Industrialization, productivity, and growth of small and medium-sized enterprises in the manufacturing sector (World Economic Forum, 2011). Growth is also supported by the availability of capital anchored on the activity of large organisations to provide reliable economies of scale (Kelley, Bosma and Amoròs, 2011).

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<sup>2</sup> Gini coefficient is a statistical distribution of welfare indicators commonly used to measure inequality, such as in income or consumption. It ranges between 0 and 1 (or 100), where 0 means perfect equality and 1 (or 100 percent) perfect inequality.

The profile elements of South African social entrepreneurs indicate that they come from different organisational sectors, i.e. traditional NGOs, not-for-profit (NPC) SEs, hybrid SEs, for-profit SEs, as well as socially committed enterprises (Visser, 2011). They are mainly white males from urban areas aged between 25 and 44 years (Visser, 2011). Similarly, Herrington and Kew highlight that South Africans aged between 25 and 44 years are the most entrepreneurially active, accounting for between 50% and 60% of all early-stage activity (Herrington and Kew, 2016).

When investigating possible reasons for low entrepreneurial intention despite positive opportunity perceptions in the country, Herrington and Kew highlighted the extent to which the 'national culture does not encourage entrepreneurial risk-taking' as a key concern (Herrington and Kew, 2016). The three most important factors cited as critical constraints for entrepreneurial activity were government policy (61%), access to finance (44%) and education and training (42%), and these have been consistently highlighted as key concerns from the first GEM 2001 to GEM 2015 (Herrington and Kew, 2016).

Even though the international conversation on social entrepreneurship has gained considerable momentum in shaping the narrative in the last 20 years, South Africa has lagged behind, only managing to contribute five peer-reviewed articles before 2011 (Visser, 2011). This point is corroborated by Urban's (2008) view on "the newness of the concept" as a reason for slow South African academic activity on social entrepreneurship.

Analysis of past research shows little is currently known about social enterprise in South Africa, and efforts to strengthen support for social enterprises to ensure that they flourish need more detailed information about social enterprises currently operating across the country (Myres *et al.*, 2019)

(Visser, 2011) advocates for better storytelling, leveraging compelling stories told by social enterprises with support and validation of facts that prove (and improve) the value of their activities. This research aims to live up to the challenge of establishing social entrepreneurship as an area of academic inquiry within a South African context.

## 1.4: Research Aims and Objectives

This thesis research aims to provide a detailed description of the role of digital technology in scaling social impact in South Africa. This will be achieved through exploring the landscape of technology-enabled social entrepreneurship in South Africa, determining what are the strategies and factors that enable scaling social impact in South Africa and building a picture of how social entrepreneurs use digital technology to scale social impact in their target communities. This research aims to address the following question:

***How are social entrepreneurs in South Africa leveraging digital technologies to scale social impact?***

To explore the foundational research question, I broke down the research scope of work into the following sub-questions:

1. What is the organisational/founder profile that is likely to adopt a digital technology-enabled social innovation?
2. What are the moderating environmental factors of the South African social economy when considering scale through digital technologies?
3. Which scaling strategies are social impact organisations in South Africa implementing?
4. Which scaling factors are considered important by founders of social enterprises?
5. How does digital technology impact the scaling strategies of South African social enterprises?

In addressing these questions, I intend to develop an understanding of the complexities and nuances that social entrepreneurs encounter when developing their scaling strategies. Through this research thesis, I hoped to provide a detailed description by leveraging the framing of participants as the central component of the research design to improve the quality of practice in social entrepreneurship. Furthermore, I intend to provide a multifaceted, rich description that provides a diverse set of learnings and insights on the role of digital technologies in scaling strategies for social impact.

I aimed to use an embedded multi-case study research design to provide an in-depth description and comparative analysis of scaling strategies across two cases. Case 1 of this study is a set of South African social enterprises that are concerned with scaling their social impact by leveraging digital technology as a means of delivering social impact, this forms our first bounded system. Case 2 of this study is a set of South African social enterprises that are scaling their social impact without using digital technology to deliver social impact.

The detailed descriptive case study endeavours to assist, guide and inform founders like me in scaling ventures and impact investors, corporations, academic institutions, and foundations supporting social enterprises solving complex global social issues.

## 1.5: Research Structure

In the Introduction Chapter, I share my personal background and journey that made me interested in scaling strategies for social impact. I then defined the rationale and motivation for the study, the research context, and the aims and objectives.

In Chapter 2, I present a comprehensive literature review covering the three areas of social entrepreneurship, scaling strategies for social impact and digital technology. These three domains helped me gain a deeper understanding needed to build a process for the thesis enquiry.

In Chapter 3, I cover the research method by describing the research approach, which includes the sub-research questions, the motivation for qualitative research decisions, considerations

for different types of research approaches, the motivation for case study design, and the final structure of the case study.

In the research methods section, I provide a detailed description of data collection by expanding on the sample selection, data collection design through interviews, documentation, and observations. I provide the reader with the interview guide highlighting how the semi-structured questions are set out to collect relevant information. I then share the process used for running the interviews and transcribing the data.

In the last section of the research method chapter, I provide details on data management, qualitative coding using a combination of six first-cycle coding methods and the development of categories and concepts. I then link the emerging categories using concept maps to propose interrelations for writing out the cases.

In Chapter 4, I present findings in the form of an embedded case study (Case 1) to provide a detailed description on scaling strategies for social enterprises leveraging digital technology to deliver social impact.

In Chapter 5, I present findings in the form of an embedded case study (Case 2) to provide a detailed description on scaling strategies for social enterprises scaling their social impact without using digital technology to deliver social impact.

In Chapter 6, I draw on the literature to discuss and analyse the two case studies to develop this research's top 10 key insights and learnings (Yin, 2016).

In the last chapter, I build concluding statements on how social entrepreneurs in South Africa leverage digital technologies to scale social impact.

## Chapter 2: Literature Review

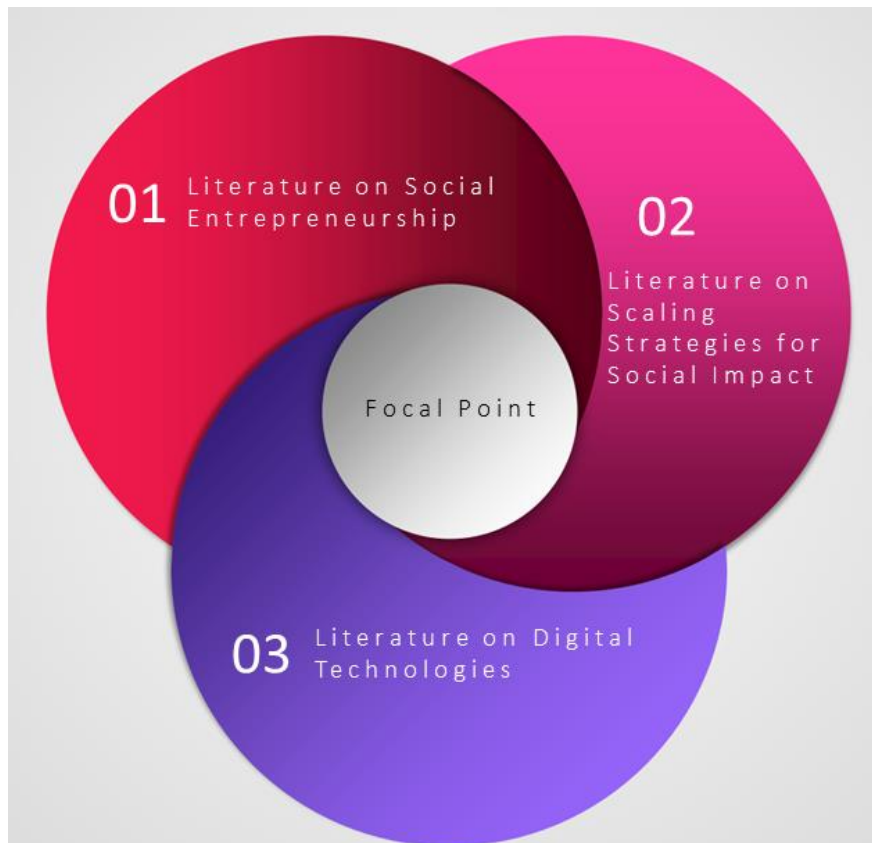


Figure 2—1: Three Literature Domains

I have structured this literature review chapter to cover three domains of literature to contribute effectively to answering this question: How do social entrepreneurs in South Africa leverage digital technologies to scale social impact? I have drawn Figures 2-1 to represent my focal point.

I chose to learn and build my understanding by covering literature on Social Entrepreneurship, its contextualisation in Southern Africa and its relevance for South Africa. Then I did an in-depth review of Scaling Strategies for Social Impact and finally provided some coverage of Digital Technologies and adjacent topics like ICT for development. I went deeper into the scaling strategies for social impact literature relative to the other two since this domain creates the basis of my findings and discussion and is at the heart of my enquiry. Given the rigid restrictions of a 50,000-word thesis limit, I could not represent all the interesting papers, frameworks and thoughts I came across on these three areas, but there is much interest and room for future research.

### 2.1: Literature on Social Entrepreneurship

I start the review on social entrepreneurship by exploring what it is, introducing the lens that I will use consistently throughout this thesis and providing some basic terminology that will become useful later. I summarise Santos’s “value creation vs value capture” framework and then provide some context on Social Entrepreneurship in Sub-Saharan Africa.

## 2.1.1: What is Social Entrepreneurship?

Over the last 30 years, entrepreneurial activities with an embedded social purpose have been an emerging area of academic inquiry (Wei-skillern, Stevenson and Austin, 2006). “Various authors have contributed elements that shape the broader definition, and the consistent central theme of what defines social entrepreneurship is the intention to solve a social problem” (Weber and Kröger, 2015).

Social Enterprise, Social Entrepreneurship, and (increasingly) Social Finance are often used interchangeably with Social Innovation in academic and popular writing. Based on the work of Westley and Antadze (2010), for this research, I subscribe to the following definitions.

**Social innovation** “is a complex process of introducing new products, processes or programs that profoundly change the basic routines, resource and authority flows, or beliefs of the social system in which the innovation occurs. Such successful social innovations have durability and a broad impact. Social innovation does not necessarily involve commercial interest, though it does not preclude such interest and is often oriented towards making a change at the systemic level” organisations (Westley and Antadze, 2010, p 2).

Whereas,

**A Social Enterprise** “is a privately owned, profit-oriented venture responding to social needs by marketing its own products and services while blending business interests with social ends. It often fits the notion of hybrid organisational models, which fuses innovative, entrepreneurial practices with a commitment to both social and economic return on investment.” (Westley and Antadze, 2010, p 2).

And finally,

**Social entrepreneurship** “is a human-centered concept that highlights the personal qualities of a person who starts a new organisation with a social mission.” (Westley and Antadze, 2010, p 3) .

Social entrepreneurship is not tied to a legal structure (such as non-profit, for-profit or hybrids); the founder or founding team have the flexibility to incorporate the venture using a structure that is best suited to attract suitable resources to take on a social problem (Wei-skillern et al., 2006). Ultimately, social innovation transcends sectors, levels of analysis, and methods to discover the processes and strives to change the way a system operates while social entrepreneurship focuses on an individual and social enterprise addresses organisations (Westley and Antadze, 2010).

Social entrepreneurs pursue social improvements and enhancements for their constituents, including their marketplace and communities, as well as a favourable return on investments to their key stakeholders (Bacq et al., 2015). Technically, social and commercial entrepreneurship both address similar conceptual areas of inquiry related to opportunity recognition, evaluation

and implementation (Shane and Venkataraman, 2000). However, social enterprises exist to meet needs that cannot be effectively met by markets (Datar, Epstein and Yuthas, 2010).

To get a better understanding of the difference between commercial entrepreneurs and social entrepreneurs, the following section explores the concepts of value creation and value capture within entrepreneurial ventures to provide a solid foundation for the subsequent sections.

## 2.1.2: Value Creation and Value Capture

Social entrepreneurship is an innovation process in the economy that can happen in different institutional contexts; it is based on value creation and operates by its own rules and logic (Santos, 2012). Santos (2012) further argues that social entrepreneurs gravitate towards activities perceived as having a high potential for value creation but a low potential for value capture.

Santos (2012) defines value creation as an increasing aggregate utility of society's members after accounting for the opportunity cost of all the resources used in that activity. Similarly, value capture is observed when the main actor is able to appropriate a portion of the value created by the activity after accounting for the cost of resources that he/she mobilized (Mizik and Jacobson, 2003).

Value creation is a necessary condition for sustainable value capture, and some level of value capture is important to ensure the growth and sustainability of the organisations whose activities create value (Santos, 2012). Maximising both value creation and value capture in the same organisational unit is difficult, and what distinguishes social entrepreneurship from commercial entrepreneurship is a predominant focus on maximising value creation and sacrificing value capture (Santos, 2012).

Building on the concept of value creation and value capture, (Akinboade *et al.*, 2023) set out to do a study on how the social entrepreneurship business model designs in South Africa create value. The findings show that most social entrepreneurs focus on building a network of trust with stakeholders, through a strong emphasis on a wide array of communications mechanisms that emphasize high-frequency engagements with stakeholders (Akinboade *et al.*, 2023). Social enterprises become attuned to the needs of the network and confirm these needs through design thinking and customer-centric approaches to strengthen the value-creation process. In the context of Value Capture, the mechanisms used focus on brand equity social equity together with the economic gains (Akinboade *et al.*, 2023).

The framing of value creation and value capture helps move the conversation away from the profit vs purpose narrative, which can exist in the same organisation, and the distinction between commercial and social entrepreneurship becomes clearer when assessed based on which side of the spectrum the entrepreneur concerns themselves with.

Given that social entrepreneurs are concerned with creating value for communities, it is natural to start wondering about the opportunity to effectively scale their impact to reach the many people and communities that could benefit from their innovations to maximise value

creation. This is a conversation that this thesis is joining. In the following section, I provide some context on the prevalence of social entrepreneurship in Sub-Saharan Africa.

### 2.1.3: Social Entrepreneurship in Sub-Saharan Africa

Some of the most innovative social enterprises have emerged from developing countries to address complex social problems, and developed regions show the highest levels of the prevalence of social entrepreneurship (Bosma *et al.*, 2015). The average prevalence rate of broad social entrepreneurial activity among nascent entrepreneurs in the start-up phase – that is, individuals who are currently trying to start social entrepreneurial activity – across all 58 economies in The Global Entrepreneurship Monitor's report is 3.2% (Bosma *et al.*, 2015). This ranges from 0.3% (South Korea) to 10.1% (Peru). Comparatively, the rate of start-up commercial entrepreneurship averages 7.6% in the world and ranges from 13.7% in Vietnam to a high of 22.2% in Peru. (Bosma *et al.*, 2015)

Prevalence rates of individuals in social entrepreneurship activity that is currently operational are 3.7% but range from 0.4% in Iran to 14.0% in Senegal. Sub-Saharan African also has high rates similar to Western Europe, Australia and the US, which typically have the highest average level of economic welfare (Bosma *et al.*, 2015). The view put forward by the study is that entrepreneurs in Sub-Saharan Africa employ few people and do not have high levels of sales when trying to compare the regions (Bosma *et al.*, 2015). This speaks to the need for Sub-Saharan African social entrepreneurs to start looking at growing their ventures and scaling them to see significant sales volumes and reduce unemployment.

The Sub-Saharan Africa region also has the highest rates of start-up phase activity that combines commercial and social purpose goals into the same venture, with almost one in four individuals engaged in some form of entrepreneurial activity (Bosma *et al.*, 2015). The region also has the biggest overlap (2.4%), where entrepreneurs combine social and commercial focus overall (Bosma *et al.*, 2015). The report also put forward the view that this could be due to the fact that lower economic development creates a stronger incentive for social entrepreneurship based on community needs that emerge.

Sroka and Meyer (2021) set up a country comparison on social entrepreneurship comparing Poland and South Africa, focusing on history, challenges, policy and government support initiatives, flagship programs and future trends in this field. The analysis concluded that in South Africa, there were more initiatives stimulating the growth of social entrepreneurship and that social entrepreneurs in Poland and South Africa face very similar problems in day-to-day operations, like low access to funding and a lack of skilled and qualified employees (Sroka and Meyer, 2021).

If this is the case, could it be that sustainable growth in social entrepreneurship could significantly affect economic development in the African regions? This thesis is positioned to explore the potential that social entrepreneurs have in South Africa through the help of digital technology.

Beyond the 2015 Global Entrepreneurship Monitor (GEM) report on Social Entrepreneurship Activity Globally (Bosma et al., 2015), GEM has not done any follow-up study to build on this initial detailed picture of social entrepreneurship in Sub-Saharan Africa. Instead, GEM special topics reports have focused on entrepreneurial financing (Daniels, Herrington and Kew, 2016), senior entrepreneurs (Schøtt *et al.*, 2017), women entrepreneurship (Elam *et al.*, 2019, 2021, 2022), COVID-19 impacts on entrepreneurship (Ionescu-Somers and Tarnawa, 2020), family entrepreneurship (Kelley, Gartner and Allen, 2020), UAE social entrepreneurship (Chabrak *et al.*, 2020), and European regional report (Bosma, Hill and Sternberg, 2022).

## 2.2: Literature on Scaling Strategies for Social Impact

In this section, I cover the literature on scaling strategies for social impact. I start by unpacking the motivation on why it is important to scale social innovation. I then define scaling social impact and introduce a framework (moral intensity) that helps unpack what could motivate a Social Entrepreneur to scale a venture. In the third subsection, I explore the existing conventional Scaling Strategies for Social Impact, followed by a review of two scaling model frameworks (SCALERS and Inhibitors). I also chose to explore the embeddedness of the social entrepreneur and bricolage in social entrepreneurship.

I then evaluate a call for scaling social impact through the perspective of social work, organisational control and partnership. I close this section by surfacing different ideas of scaling through systems change while promoting an ecosystem approach.

### 2.2.1: Scaling Social Impact – Why is it important?

How can we effectively scale social impact? It is a question that has been in the academic conversation over the last 20 years, and it was brought to the scholarly literature by Dees, Anderson and Wei-Skiller (2004) in their famous paper on Scaling Social Impact: New Thinking (Dees, Anderson and Wei-Skillern, 2004). This work highlights that failure to investigate broader strategic contextual frameworks can blind social entrepreneurs into creating a bias towards a limited set of strategies for scaling (Dees, Anderson and Wei-Skillern, 2004).

(Dees et al., 2008) puts forward the view that superior performance in the context of social entrepreneurship can be measured by scaling social impact: that is, a social enterprise's ability to scale its reach to address the magnitude of a social need or problem more effectively.

This view is reaffirmed by the work of Bacq, Ofstein, Kickul and Gundry (2015), which develops the view that the success of social entrepreneurial firms is determined by their innovations, outcomes, and scaling of social impact rather than by the measurement of firm size, growth rate and processes. Similarly, Cannatelli (2016) points to scaling social impact as one of the most challenging and relevant topics in social entrepreneurship.

Weber and Kröger (2015) define scaling social impact as a “model, with the goal of satisfying the demand for the relevant product or service”. This definition differentiates between social enterprise growth, the most effective and efficient possible increase in social impact created by a social enterprise based on its operational and increased social impact achieved through

the innovation, thus still crediting social enterprises with scaling social impact even if the social enterprise is not necessarily growing in the same proportion.

Scaling-up refers to the growth in social value by expanding a current programme to other geographic locations. At the same time, scaling deep means focusing energies and resources on achieving greater impact in the original community by doing one of the following: improving the quality of the enterprise services, achieving greater penetration of the target client population, finding new ways to serve clients, extending services to new client groups by developing innovative financial management approaches and serving as an example to others in the field (Taylor, Dees and Emerson, 2002).

Scaling social impact can further be interpreted in two categories: 'breadth impact' and 'depth impact' (Bacq et al., 2015). On the one hand, breadth impact refers to the quantitative growth of impact, designed to reflect geographic expansion or increases in the number of people benefiting from the solution (Bacq et al., 2015). At the same time, depth impact refers to a qualitative improvement in terms of the development of product/service scope in serving the needs of the target community (Bacq et al., 2015). (Pfothenhauer *et al.*, 2022) in their work on 'The Politics of Scaling' puts forward the view that social analysis of science and technology needs to come to terms with the 'politics of scaling' as a powerful corollary of the 'politics of technology'.

In addition to the Importance of Scaling Social Impact, Lucienne Abrahams puts forward an obvious reminder that The terms "scale" and "sustainability" are, of course, different words that are open to varying interpretations, but sustainability is often a central feature of Successful Scaling (Abrahams, 2021).

Even though the social entrepreneurship field is growing, thousands of social entrepreneurs do not achieve substantial impact through scale (Bloom, 2012). In the following section, I explore the social entrepreneurs perceived moral intensity as a possible framework to unpack why someone may choose to scale a social venture.

## 2.2.2: The Social Entrepreneur's Perceived Moral Intensity

Very little is known about why some social entrepreneurs choose to scale their solutions while others do not, despite the fact that factors at the individual level may affect scaling decisions significantly (Smith, Kistruck and Cannatelli, 2016). A strong defining characteristic of social entrepreneurs is a predominant focus on value creation for others rather than value capture for themselves (Santos, 2012)

The work of Smith, Kistruck and Cannatelli (2016) focused on individual-level factors that affect the decisions to scale social impact. In particular, they develop a theoretical model of ethical decision-making to explain why a social entrepreneur's perceived moral intensity of the social problem and desire for control may influence scaling decisions. In this case, the perceived moral intensity of a social problem is based on six components from the work of Morris & McDonald (2013), namely:

1. Magnitude of consequences - The overall harm done to victims by the social issue,
2. Social consensus - The level of people's agreement about the effects of the social issue,

3. Probability of effect - The joint function of likelihood of occurrence and expected consequences of the social issue,
4. Temporal immediacy - The length of time between now and the consequences of the social issue,
5. Proximity - The degree to which an actor can identify with potential victims of the social issue and
6. Concentration of effect - The degree to which consequences only apply to a few people of the social issue (Morris and McDonald, 2013).

Key findings by Smith, Kistruck and Cannatelli (2016) indicate that higher levels of perceived moral intensity will positively influence the likelihood of a social entrepreneur choosing to scale through Organisational modes with a higher degree of openness to achieve greater speed and scope of social impact. However, this effect will be negatively moderated when a social entrepreneur's desire for control is high (Smith, Kistruck and Cannatelli, 2016).

An area of research that is closely related to the decisions to scale social impact in the decision is the social entrepreneurial intention as a pre-condition of social venture creation. There is a notable stream of research focused on motivational drivers for choosing to become a social entrepreneur (Kruse *et al.*, 2023). (Meoli *et al.*, 2020) provides a comprehensive systematic review of literature linking entrepreneurial intention with behaviour (Goethner *et al.*, 2012; Kautonen, Van Gelderen and Tornikoski, 2013; Gielnik *et al.*, 2014; Van Gelderen, Kautonen and Fink, 2015; Kautonen *et al.*, 2015; Kautonen, Van Gelderen and Fink, 2015; Rauch and Hulsink, 2015; Shirokova, Osiyevskyy and Bogatyreva, 2016; Shinnar *et al.*, 2018; Delanoë-Gueguen and Liñán, 2019; Neneh, 2019) while also exploring how entrepreneurial intentions influence entrepreneurial career choices. Though this research field is also exciting, this thesis is limited to decisions on scaling social impact instead of decisions on starting a social enterprise.

Based on the earlier comment about the social entrepreneur's choice to scale through organisational modes with a higher degree of openness, the following section explores the various scaling strategies or scaling modes available when scaling social impact.

### 2.2.3: Strategies for Scaling Social Impact

The discussion on ways to successfully increase the number of people reached by a social innovation has been active both in the environment surrounding social enterprises and among researchers (Weber and Kröger, 2015). The scaling of social entrepreneurial impact is an important issue in the field of social entrepreneurship (Bloom and Smith, 2010).

At one point in the journey of a Social Enterprise, the founder or founding team starts asking questions about how the venture should grow to deliver impact to more people in different communities (Bloom, 2012). This point is typically reached when the social enterprise has created small innovation exceptions that impact people's lives. The founder/founding team then become curious about reaching millions of lives. It is at this point where insights about effective tools and frameworks on scaling become important (Bloom & Smith, 2010).

Failure to investigate broader strategic contextual frameworks can blind social entrepreneurs, creating a bias towards a limited set of strategies (Dees et al., 2008). Dees, Anderson, and Wei-Skillern (2004) define three scaling strategies or mechanisms common in the social entrepreneurship literature: dissemination, affiliation, and branching.

Combining scaling strategies literature from the work of three different scholars In this domain, I developed the following comprehensive table of scaling strategies (Alvord, Brown and Letts, 2004; Dees, Anderson and Wei-Skillern, 2004; Weber and Kröger, 2015).

*Table 2—1 : Comprehensive Scaling Strategies*

#	Scaling Strategy	Definition
1	Dissemination of Knowledge	Actively providing information, technical assistance to others looking to bring an innovation to their/a community. It is a simple model and is least resource intensive. The main organisation has little control over implementation
2	Contractual partnerships	The formal relationship between organisation often leading to an identifiable network. Can be linked by a commitment to goals, mission, set of values, brand name, program content, funding, reporting, shared principles and best practices. The connection can be tight or loosely affiliated depending on the innovation. This can also include licensing, social franchising and joint ventures.
3	Strategic expansion	Branching: Creation of more regional sites by a large organisation. This can also include new products/services offered by the organisation. Or just taking the same social innovation and exposing it to new target groups that were not addressed initially. Similarly, an organisation can also choose to just accelerate geographic expansion without necessarily needing to increase regional sites.  Often chosen for central control and linked with highest resource investment and complexity. Attractive when successful implementation of the innovation depends on tight quality control, specific knowledge and strong organisation culture. Often considered as mainstream and linked with technical innovations or solutions that need more flexibility in their focus area as time passes
4	Capacity building	Social programmes are increased in an existing region. The goal is to enhance efficiency, productivity, or administrative and programme-related performance without creating new sites

(Alvord, Brown and Letts, 2004; Dees, Anderson and Wei-Skillern, 2004; Weber and Kröger, 2015).

Dees, Anderson, and Wei-Skillern go on to discuss a framework of “The Five R’s” recommended for interrogating elements that should guide social entrepreneurs in discovering a scaling mechanism that would be more appropriate for their social enterprise (Dees, Anderson and Wei-Skillern, 2004).

*Table 2—2: The Five R’s for Discovering the Scaling Path*

#	The R’s	Definition
1	Readiness	Introspection about the innovations readiness to be spread, this has to be backed up with objective evidence of success that is not based on unique circumstance. The key question is whether the innovation can be successfully transferred to other communities and still have the intended impact?

2	Receptivity	For this assessment, the social entrepreneur would ensure that the drivers for success will translate to the innovation being well-received in target communities. All possible reasons to anticipate resistance sufficiently addressed. Open innovation does not always translate to demand and communities need to perceive the problem as a priority. All complexities need to be removed.
3	Resources	Clarity on resources required to deliver the anticipated social impact translated into a resource plan. This plan needs account for scaling costs and bring in strategies on how to curb or lower them while still delivery impact and generating revenue in a reliable way. Partnerships with foundation grants could be considered to deal with the resource constraints for a short term
4	Risk	Risk to society and the organisation, this analysis needs to define criteria for failed implementation and its consequence on the community and organisations reputation. In cases of innovations that have severe consequences, models that provide central control to the social enterprise would be favoured.
5	Return	Scaling costs money and time, this analysis is about successful social impact and revenue. Social entrepreneurs also have a responsibility to serve their communities well. Some cases may require slower tightly controlled scaling to ensure high-quality of service for recipients. Other considerations are economies of scale, organisational efficiencies and brand credibility.

(Dees, Anderson, and Wei-Skillern, 2004 P30)

Dees, Anderson, and Wei-Skillern advocate for increased chances of successfully scaling social if social entrepreneurs consider the full range of scaling options, making decisions about how to define their innovations, selecting a promising scaling strategy and continuously refining and adapting their strategy with the five R's in mind (Dees, Anderson and Wei-Skillern, 2004).

The process of finding the right scaling path for a social innovation is iterative and involves a mixture of action, analysis and refinement until the right scaling strategy is discovered (Dees et al., 2008). Additionally, social entrepreneurs also need to consider the context and circumstance for which will their chosen strategy yield success (Dees et al., 2008).

Weber and Kröger's (2015) work promotes the need for social entrepreneurs to evaluate success factors that should be combined with a chosen scaling strategy. Additionally, entrepreneurs need to consider how these success factors need to be brought together for the right configuration that ensures the highest probabilities for a positive outcome for a chosen scaling strategy (Weber and Kröger, 2015). The following table is a summarised adaptation of their scaling factors.

*Table 2—3: Success Factors for Scaling Social Impact*

#	Success Factor	Definition
1	Management competencies	Ability to apply business orientate processes and structures in the social enterprise's daily operations. Setting clear strategies, goals, success measures, regular feedback, budgets, cost control, organisational processes, and ongoing improvement efforts
2	Replicability	Ability to reproduce not only its products and services, but also structures and processes. Examine operational model for reducing complexity and introduction of standards in the organisation.

3	Mobilising the necessary resources	<p>Generate resources required at the various phase of the scaling process, or alternatively, if they can mobilise those resources through third parties. The resources can be financial capital, human capital (could include knowledge) or social capital that links the social enterprises with access to additional resources or partners.</p> <p>Scaling requires the ability to mobilize and acquire additional resources internally or externally. Funding, knowledge, and personnel are key for any social enterprise looking to scale. It is often necessary to list the resources required for scaling and cross those against those already available to get an indication of the resource gap. This gap could be filled by partners with their own expectations</p>
4	Control and dependency	<p>Growth requires partners, and these partners, allies and donors are critical for gaining access to resources and, as a result, scaling successfully. Intimate partnerships and collaborations gain more resources enabling the faster and more successful social impact can be scaled.</p> <p>Deeper partnerships also result in the reduced influence of the social enterprise and its ability to make decisions. Often founders need to consider their role in the organisation in the future. The trade-off between scaling quickly and limiting their own opportunities to manage and control.</p>
5	Transfer costs	<p>Internal transfer costs result from having to adapt the operational model. Relates to model's complexity and sectors in which it is being used. External transfer costs result from the adaptation required for the different contexts in which the social enterprise would like to carry out its scaling activities.</p>
6	Legitimacy and reputation	<p>General perception or the understanding of third parties than an organisation's actions within a social system of standards and values are both desirable and appropriate. When an organisation's actions correspond to the expected standards and values within a society, it attains legitimacy and is considered reputable.</p> <p>Legitimacy is linked to an organisations ability to acquire resources more easily, which leads, in turn, to greater legitimacy. Prizes, honours and a media presence also increase a social enterprise's legitimacy and reputation. A high degree of legitimacy reduces the risk of an organisation collapsing and increases chances of long-term success.</p>

(Weber and Kröger, 2015 P16-22)

A common problem associated with scaling is the potential that the social enterprise reduces the level of service offered to individual clients in order to provide service to a greater number of clients (Datar, Epstein and Yuthas, 2010). This research aims to explore how social entrepreneurs build-in quality measures into their scaling plans. The following sections provide more details on two scaling model frameworks, namely The SCALERS Model and an Inhibitors Model.

## 2.2.4: The SCALERS Model

In a similar breath of unpacking why scaling social impact has become a major challenge for social entrepreneurs, Bloom and Chatterji (2009) set out to identify several drivers of successful scaling of social entrepreneurial impact, while also uncovering the situational

contingencies that might lead to some drivers to be more effective in certain situations than others. Their work resulted in a conceptual model of seven drivers (or organisational capabilities) that can stimulate successful scaling by a social entrepreneurial organisation. These drivers/capabilities are identified by using the acronym SCALERS, which stands for:

- Staffing,
- Communications,
- Alliance building,
- Lobbying,
- Earnings generation,
- Replication, and
- Stimulating market forces.

Based on six US-based organisations as case studies, Bloom and Chatterji (2009) show that depending on the situational contingencies, one or more of the given SCALERS will be a more significant driver of success towards scaling. Following from the introduction of the SCALERS conceptual model, Bloom and Smith (2010) take the SCALERS model a step further by adding a theoretical foundation upon which the SCALERS model is developed, exploring the similarities and differences between scaling within social entrepreneurship and growth within commercial entrepreneurship while performing the first empirical test on the SCALERS model through a study of a large-scale sample of more than 500 social enterprises in the United States.

Drawing on the literature in entrepreneurship research to construct the theoretical foundation for the SCALERS model, Bloom and Smith (2010) conclude that access to the necessary financial, human, and social capital are significant for to the growth of new social ventures. Strategy is important but necessary resources to develop and execute a growth strategy are fundamental (Bloom and Smith, 2010). The challenges facing for-profit entrepreneurial ventures interested in growth and social entrepreneurial organisations interested in scaling their impact are similar, as they both manage relationships with multiple stakeholders and have to find ways to mobilize resources and achieve sustainability (Bloom and Smith, 2010). I summarise Bloom and Smith (2010)'s divergence into the following:

1. Social entrepreneurs are less likely to have economic or financial incentives available to motivate desired actions by funders/investors, employees, suppliers, distributors, and beneficiaries/consumers;
2. They have to appeal more to altruism, compassion, volunteerism, and social value creation to get stakeholders to support the scaling strategy;
3. They often enter environments that do not have established infrastructure in place;
4. They have to build their own distribution infrastructures;
5. Financial capital markets are often not as available to social entrepreneurial organisations, and often, the beneficiaries are not as likely to be able to afford to pay a 'full cost' price for the services they receive (Bloom and Smith, 2010).

Fundamentally, the SCALARS model recognises growth as a function of the resources of the social enterprise. The scale barriers are the same as "source deficiencies which new ventures must overcome as they strive to grow and mature" (Bloom and Smith, 2010). Ultimately, Bloom and Smith (2010) assert that the SCALERS model views each of the SCALERS as an

organisational capability to create, develop and maintain different forms of capital, which can be used to grow or scale the social impact of social entrepreneurial organisations.

In testing the validity and reliability of the SCALERS model for predictive abilities for scaling of social impact, Bloom and Smith's (2010) results indicate that staffing, communicating, alliance-building, lobbying, earnings generation, replicating and stimulating market forces are all important predictors of scaling of social impact and that alliance-building and lobbying no longer remained significant when all the SCALERS capabilities were entered into the regression analysis.

Building on this initial theoretical and empirical work, Cannatelli (2016)'s work sought to further develop the SCALERS model by replicating the results of the initial test and extending it to new geographical areas by relying on a large-scale sample of 179 social ventures in Italy. Cannatelli's (2016) study embeds the SCALERS model within the contingency theory framework to explain how and why the impact generated by social organisations may vary as a consequence of interaction with some contextual factors. This study focused on the interaction between a set of situational contingencies and organisational capabilities that social ventures should develop to achieve the scaling of impact.

The results confirm findings from (Bloom and Smith, 2010) in terms of positive correlations between each organisational capability—except for earnings generation (Cannatelli, 2016). A set of six significant interactions was discovered, suggesting moderating effects of external contingencies (environment, organisation size, and strategy) on the way each organisational capability leads to scaling social impact (Cannatelli, 2016).

The strength of economic incentives, availability of potential allies, and public support were found to enhance the impact of stimulating market forces, communication, and staffing on the scaling of impact (Cannatelli, 2016). Also, the dispersion of beneficiaries negatively moderates the effect of staffing on scaling of impact and the capability of alliance building is negatively affected by both the strength of economic incentives and labour needs (Cannatelli, 2016). The study's results suggest external factors play a relevant role in the configuration of capabilities to be developed by social organisations for scaling their impact (Cannatelli, 2016). The SCALERS model is a significant contribution as organisational capabilities that have been identified for the purpose of increasing the likelihood of successfully scaling social impact (Cannatelli, 2016).

To take the SCALERS Model further, Urban and Bukula (2022) choose to investigate Earnings Generation (EG) and Strategic Alliance-Building (SAB) as potential predictors of the scalability of social enterprises. Their results show Earnings Generation is a significant and positive predictor of social enterprise scaling, while Strategic Alliance Building is a positive but non-significant predictor of social enterprise scaling (Urban and Bukula, 2022). They recommend that Social Enterprises explore varying business models focussed on Earnings Generation, which must be evaluated regarding profits generated versus high administration costs. Additionally, Social Enterprises, in their efforts to scale, should devote their energy towards measuring double bottom line results (financial and social performance) and triple bottom line results (financial, social, and environmental) (Elkington, Hartigan and Litovsky, 2010; Urban and Bukula, 2022)

In this thesis research, the case analysis section will explore how the different organisational capabilities present in the context of social ventures that leverage digital technology to reach their beneficiaries. While still exploring the frameworks at an organisational level, the following section introduces a second model that is closely related to the SCALERS model but makes the contextual setting clearer as a contributor towards successful scaling.

## 2.2.5: Factors That Inhibit Scaling Social Impact

To explore the inhibiting factors of scaling up the impact of social entrepreneurial organisations (SEO), Scheuerle and Schmitz (2016) developed an analytical framework that consists of two cross-tabulated dimensions: first, the relevant actors on the leadership, the organisational, or the ecosystem level who are affected by the inhibiting factors; the second dimension encompasses the (pre)conditions on their side for scaling up such as ability, willingness, or admission. The framework is supposed to enable researchers to analyse the incidence, relations, and focal points of inhibiting factors for scaling social impact (Scheuerle and Schmitz, 2016).

Scheuerle and Schmitz (2016) goes beyond just building a framework and use it to analyse the barriers that SEOs face in the German welfare state context. The findings reveal 17 inhibiting factors that fit into the framework for almost all the fields; no factor was identified for admission on the leadership level in this set.

Acknowledging that I can't discuss all the inhibiting factors findings here, I pay attention to the top five based on reoccurrence from the 16 SEOs. The top five findings by Scheuerle and Schmitz (2016) highlight that:

- Under Ability at an Ecosystem level, Schmitz concludes that 12 SEO's highlight unsuitably qualified workforces as the highest inhibitor. This is particularly interesting because SEO's activities interface with different sectors and usually introduces new approaches and thus needs staff with specific skills. Some choose to invest in training and still get challenged by retention. The scarcity of suitably qualified workforce can constrain scaling
- Under Willingness at an Ecosystem level, Schmitz concludes that 10 SEO's highlight reluctance to change and cooperation in public administration by civil servants and public employees as an inhibitor, particularly when the degree of innovation was very high
- Under Admission at an Ecosystem level, 10 SEO's highlighted inadequate funding structures in the public welfare system. This is an issue because public insurances fund for social services might not fit the SOE's product or service due to lack of impact-based budgeting and allocation, remuneration structures that do not fit the prevention component and general incompatibility.
- Under Ability at an Organisational level, Schmitz concludes that 9 SEO's highlights organisational dependency on leaders as an inhibitor, this means the organisations are vulnerable thus limited in terms of scaling up. The key challenge is that leaders become the sole repositories of crucial operational knowledge and the ability to persuade and

win crucial stakeholders can't be delegated due to dependency on leader's reputation and personality.

- Similarly, under Ability at an Organisational level, 9 SEO's highlights point to staff members missing (local) embeddedness of SEOs in communities they expand to

The full result's summary table is provided on Appendix A. What is most surprising about this study is that most of the inhibiting factors point to the ecosystem as the level with the greatest number of inhibitors with high frequency of occurrence for scaling social impact followed by the organisational level. This framework does take a broader perspective by integrating the perspective of all the relevant stakeholders (including funders, civil servants, etc) and mapping their influence (Scheuerle and Schmitz, 2016).

To explore the key important factors that help social enterprises scale quickly, Walske and Tyson (2015) concluded that sourcing financial capital, building out their supply chain – both in production and distribution – and obtaining early media recognition helps social enterprises position for a cycle of success within the first four years (Walske and Tyson, 2015).

Having explored the Scaling Strategies, SCALERS model, Success Factors and Inhibiting Factors at an organisation layer, the following subsections of literature explores two additional theories that affect scaling social impact at the founder's layer. I explore structural embeddedness and Social Bricolage.

## 2.2.6: How Embeddedness Affects Scaling Social Entrepreneurship

For the purpose of keeping the focus on scaling social impact, this thesis adopts the view of structural embeddedness as being concerned with the concrete ties between and among actors and focuses on material exchanges of resources and information as the basis for exchange (Uzzi and Gillespie, 1999). This means social entrepreneurs can be deeply embedded (the tight coupling) or be connected through arm's length ties to various stakeholders in a local community in which they operate.

The work of Zahra, Gedajlovic, Neubaum and Shulman (2009) profile archetypes of social entrepreneurs into:

- The Social Bricoleur: characterised by local concerns, first-hand exposure to problem and domain-specific knowledge;
- The Social Constructionists: characterised by social market gap identification, solution application to multiple contexts, resource-driven, develop multiple strategies to support the scalability of their mission; and
- The Social Engineers: characterised by the desire for deconstructing & reconstructing the engines of society to achieve broad social, seeks out legitimacy required for mass support (Zahra et al., 2009).

Smith and Stevens (2010) suggested that geographic scale and scope, as evidenced by different archetypes of social entrepreneurship, affects the degree of structural embeddedness of a social entrepreneur which is further linked to their ability to scale the venture effectively. The geographic scale of social entrepreneurship will be inversely related to the degree of structural

embeddedness, meaning entrepreneurs that are deeply embedded in a community are less likely to scale to other communities effectively (Smith and Stevens, 2010).

Additionally, Smith and Stevens (2010) indicate that the degree of structural embeddedness of social entrepreneurship will be positively related to scaling depth, meaning that Social Bricoleurs that are deeply embedded in a community are more likely to scale deep within that community. This is complemented by the finding that the degree of structural embeddedness of social entrepreneurship will be positively related to scaling strategies that focus on autonomy and inversely related to scaling strategies that focus on control (Smith and Stevens, 2010). This means that Social Bricoleurs are unlikely to have little control and choose more open scaling strategies.

In this research, I explore whether these relationships hold true for social entrepreneurs that have an orientation towards leveraging digital technologies that can reach more people without having the associated need of building a strong community connection that is solely reliant of the founders or social entrepreneur. Given that the concept of bricolage has been extensively explored in the context of technology entrepreneurship (Garud and Karnøe, 2003; Baker and Nelson, 2005; Fisher, 2012), the following section expands more on this theoretical concept and its relevance for this research topic.

## 2.2.7: Bricolage in Social Entrepreneurship

Greater social impact may depend on the extent to which social entrepreneurs can combine and apply the resources they already have to new problems and opportunities; this pattern of behaviour is known as bricolage (Baker and Nelson, 2005; Sonenshein, 2014). From an entrepreneurship perspective, bricolage can be characterised to include an action orientation to problem-solving, experimentation in addition to conceptualisation of challenges, use of accessible and available skills (sometimes self-taught), use of existing contacts and resources on hand to develop solutions (Fisher, 2012; Bacq et al., 2015).

Bricolage in technology entrepreneurship can be illustrated by a low-tech design that ramps up progressively and is ultimately able to prevail over a high-tech breakthrough approach, transforming on a gradual basis to greater degrees of functionality (Garud and Karnøe, 2003).

Building on the principles of embeddedness, Smith and Steven's work (2010) work highlights that the web of relations in which social entrepreneurs are embedded may influence their scaling decision and that social bricoleur type of social entrepreneurship tends to focus on local concerns; Desa and Koch (2014) indicate that bricolage indeed allows the social enterprise to develop the necessary cultural resources so as to adapt the product offerings to the variety of rural socioeconomic needs at low costs and bricolage is conducive to the growth of social impact depth.

The study by Bacq, Ofstein, Kickul and Gundry (2015) sets out to explore the relationship between bricolage and the scaling of social impacts. The findings show that bricolage is an essential tool for achieving scaling of social impact in a resource-constrained setting; however, bricolage can only take a company so far, and may not be an effective long-term strategy (Bacq et al., 2015).

This means that as bricolage behaviour increases, the influence on the scaling of social impact becomes less pronounced and then actually begins to diminish the very point of the enterprise (Bacq *et al.*, 2015). But contrastingly, Busch and Barkema (2021) present a case study on a social organisation [Company Org] appearing to use bricolage to scale extensively [over 20 locations worldwide] into a variety of locations as they explore if bricolage can be scaled, and if so, how and why? (Busch and Barkema, 2021)

Having explored the dominant theories that affect the organisational layer together with the founder/founding teams' individual layer, I turned my focus to general inhibiting factors that are often linked with why social ventures fail to reach more beneficiaries.

## 2.2.8: Scaling Social Impact Through the Lenses of Social Work

In the realm of scaling social impact, one might be tempted to only look at social entrepreneurs who are applying new business models towards social problems, I avoided this trap by also searching for literature on scaling social impact in the social work domain as a component of the social sector. Contemporary social work is also starting to ask questions on scaling impact and Rodriguez, Ostrow and Kemp (2017) put forward a view that society for social work must reorient itself to scale up social solutions to social challenges. They argue that the social work community needs to move away from the interpersonal and individual level focus prevailing since this strategy by itself has been insufficient to effectively scale up solutions to social problems in the last decade (Rodriguez, Ostrow and Kemp, 2017).

Rodriguez, Ostrow and Kemp (2017) further highlight that the person-in-environment framework (which is the main premise for social work practice and research) is not merely a heuristic tool; It is the start. Interventions that deliver social impact at the individual level (micro level) are only sustainable when there is simultaneous intervention at the mezzo level (local and small community) and macro level (large-scale population or system) (Rodriguez, Ostrow and Kemp, 2017). In their research, they unpack how the need for commercial sustainability of social enterprises pushes these organisations to focus interventions at a mezzo and macro level, which has been a challenge in contemporary social work (Rodriguez, Ostrow and Kemp, 2017).

Rodriguez, Ostrow and Kemp (2017) also argue that scaling up social impact needs to entail strategic attention to three connected processes:

- a) the scale at which the social problem is defined - the need to pay consistent attention to the multiple levels of the social issue,
- b) framing of the social issue and the processes linked to it, and
- c) marketing and strategies for mobilising various stakeholders to ensure broad-based support.

Even though the social work field did not initially seem connected to the social entrepreneurship field for me, I found their call and argument for a simultaneous focus on the micro, mezzo, and macro level insightful and compelling.

In the following sub-section, I provide context for the relationship between organisational control and scaling social impact.

## 2.2.9: The Role of Organisational Control in Scaling

Scaling social impact often requires linking the need to scale to the organisational perspective, and control is essential in any type of organisation to coordinate organisational members toward coherent goals (Sezgi and Mair, 2010). The article by Sezgi and Mair (2010) explores how organisations scale in the context of organisational control and the mechanisms that can be used for achieving differing degrees of control in different scaling modes or scaling strategies.

Based on a detailed case study of Aravind Eye Care System, an organisation that applies the three scaling strategies (branching, affiliation, and dissemination) simultaneously, Sezgi and Mair (2010) unpack how organisations can think about exerting differing degrees of control for scaling their social impact. The case study illustrates that when using dissemination as a scaling strategy, the organisation had little control over implementation in new locations, but leveraging branching as a scaling strategy offered the greatest potential for coordination thus concluding that organisational control becomes a significant factor in organisational design within context of scaling social impact (Sezgi and Mair, 2010).

The Aravind case study also demonstrates how organisational control can be maintain across the system even when working with implementing partners by leveraging practices, procedures, and values (Sezgi and Mair, 2010). The organisation uses patterns for coordinating activities which can be structured under four mechanisms, namely:

- Training – Teach skill and cultivate values and culture,
- Mobility – Rotations to cultivate values in new facilities and maintain values in existing ones,
- Communication – Monitor performance measures and reinforce the first two mechanisms and
- Sharing of knowledge through templates - Reflect best practices (Sezgi and Mair, 2010).

The intensity of application of the four mechanisms varies in relation to three scaling strategies, an example of this is that training can be at three times the level of intensity in branches in comparison to dissemination partners, similarly the main organisation might not be able to facilitate rotations in a dissemination partner facility and could only be limited to site visits with respect to mobility (Sezgi and Mair, 2010).

The Aravind business model shows that organisational control is an important feature of scaling social impact, especially when the social innovation is closely linked to core values of the original organisation. Putting mechanisms in place helps to maintain different degrees of control, which are a function of the scaling strategy used is essential (Sezgi and Mair, 2010). In the second last sub-section of the literature review for scaling strategies for social impact, I explore scaling through partnerships.

## 2.2.10: Scaling Social Impact Through Partnerships

Moving away from control mechanisms to a closely related question, how do social entrepreneurs use knowledge transfer as a strategy to achieve increased impact? Based on the work of Chowdhury and Santos (2010), I turned my attention to the case of Gram Vikas, which unpacks how successful social enterprise transferred their innovation to a partner organisation while maintaining the fidelity of the innovation being transferred. The case of Gram Vikas findings can be summarised into the following points (Chowdhury and Santos, 2010):

- It is essential to focus on transferal of core elements of the innovation to ensure success; the “Arrow core”<sup>3</sup> concept can be leveraged towards this determination. Changing these elements results in a change in the nature of the innovation and, thus, the expected outcome.
- Expansion through partnerships inevitably leads to levels of control dropping for the source organisation; the extent to which this can be a problem is a function of the difference between the partners organisational size, mission and culture.
- The source organisation needs to accept that some adaptations are necessary when knowledge is context-dependent. The innovation may need adaptations “around the edges”. But this cannot be to the extent that the core and meaning of the innovation is lost.
- Since social entrepreneurs have a predominant focus on value creation for the society rather than value appropriation, this often lends itself to the community having access to innovations that are “patent-free”, but this does not mean that the innovations are “freely implementable”, controlled version of knowledge transfer is essential. A high degree of control over the transfer process is linked with better-scaling success of the innovation while keeping the vision relatively intact.
- Intentionality about the nature of the partnerships helps with the transfer process; solidifying an alliance through a transfer agreement removes ambiguity on issues like sharing knowledge and best practices. In the early stages of innovation transfers, agreements serve functions similar to franchise agreements in the commercial firms.

Social innovation can be scaled by working with others, and to scale the nature of the desired impact, the source organisation might typically be involved with multiple conflicting stakeholder views (Dentoni, Bitzer and Pascucci, 2016). This means that the source organisation often works in a context of competing beliefs, rules and practices known as institutional logics (Voltan and De Fuentes, 2016). Voltan and De Fuentes (2016) sets out to analyse how competing institutional logics are managed by social innovators attempting to scale their efforts through inter- and intra-organisational partnerships.

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<sup>3</sup> The “Arrow core” is a conceptual framework developed by Winter and Szulanski (Winter and Szulanski, 2001) to provide an understanding of which knowledge attributes are replicable and worth replicating, together with knowledge of how these attributes are created and the characteristics of environments in which they are worth replicating

The key findings from Voltan and De Fuentes (2016) illustrate that multiple institutional logics are an inherent element of efforts to scale social innovation via intra- and inter-organisational partnerships irrespective of the organisational scaling strategy chosen. These can present as:

- Mission creep when commercial logics start to dominate social logics when scaling by expanding the organisation,
- Development of new cultures that changes the nature of the impact for those pursuing growth through formal partnerships,
- Necessary levels of autonomy held by those at affiliate sites when impact scaling is achieved through networks and franchise models, and the
- Ability to be adaptive and inclusive of diverse perspectives often gets challenged by logics that favour commitment to norms required for consistency and standardization (Voltan and De Fuentes, 2016)

The complexity of logic multiplicity means that they can co-exist at different levels across systems, it is also possible for rival logics to co-exist, and this co-existence is crucial to achieving impact in collaboration efforts to scale social innovation because it makes organisations more enduring, sustainable and innovative (Voltan and De Fuentes, 2016). Ultimately, it is important to strategically plan how competing logics will be addressed and integrated in the emergent culture while scaling social impact (Voltan and De Fuentes, 2016).

My overall interpretation is that scaling efforts often entail a decision by an organisation to choose to focus more on growing its capacity for impact in a narrower system or to focus on reaching as many people as possible through a more horizontal dissemination of knowledge and services. In the last subsection covering literature for scaling strategies, I explore an enterprise approach versus an ecosystem approach for scaling social impact.

## 2.2.11: Scaling Through an Enterprises Approach vs an Ecosystems Approach

Within the practitioner communities, the conversation on scaling social impact is starting to take a different tone, the social entrepreneurship sector which has long been obsessed with the holy grail of organisational scale and is now coming to terms with the limits of incremental growth (Milligan et al., 2017).

The social needs for Africans are just too large and urgent; the models for scaling that have developed thus far remain too narrow and simply take too long (Milligan et al., 2017). Conventional scaling models borrowed from the private sector, such as branch replication, social franchising and open-source dissemination, seem woefully inadequate when aiming to create meaningful social change for entire populations (Milligan et al., 2017).

Milligan, Rayner, Thorogood, Bonnici and Saez puts forward a view that successful social entrepreneurs feel dissatisfied with the reach of their organisation, they describe their impact as a “drop in the ocean” even if their interventions have improved and, in some cases, radically transformed the lives of millions. This leaves social entrepreneurs with conflicting feelings of “being responsible for an island of success in a sea of despair ” (Milligan *et al.*, 2017).

The insights report titled “Beyond Organisational Scale: How Social Entrepreneurs Create Systems Change” by the Schwab Foundation For Social Entrepreneurship calls for social

entrepreneurs to seek new ways of organizing and operating to achieve systemic scale (Milligan et al., 2017). This requires an evolution beyond organisational scale (growing the reach of a prescriptive, organisationally designed solution to a problem) to systemic scale, with the goal of shifting the rules, norms and values that make up social systems (Milligan et al., 2017).

This sentiment is captured by Jerroo Billimoria, who said

“Very often, scale is looked at as scaling an organisation or enterprise as opposed to scaling a concept. Looking beyond scaling a particular organisation requires a major mindset shift. We must determine how we can collaboratively scale action around a particular problem through the engagement of all the stakeholders affected by the issue. Only then will we make meaningful changes in how complex social problems are taken on” (Milligan *et al.*, 2017 P7).

These views align with the earlier work of Elkington, Hartigan and Litovsky (2010) which calls for supporting an agenda for social entrepreneurship that focuses on the shift from “Enterprises” to “Ecosystems.” The article puts forward the view that Fortune 500 companies have influenced our mental constructs of what “scale” needs to represent for social entrepreneurial ventures, growing one organisation from a locally spawned start-up to a multi-country entity, preferably operating across continents (Elkington, Hartigan and Litovsky, 2010).

Elkington, Hartigan and Litovsky (2010) advocates for a recognition that there are different ways to strengthen and spread a successful social innovation. The central unit of analysis should not be the organisation—it should be the sustainable solution and its underlying business model which is reinforced by the ecosystem in which it exists (Elkington, Hartigan and Litovsky, 2010). The “scaling to the issue” approach means giving up “ownership” of the issue, and that is a tough call given the existence of egos but Enterprise that do this tend to have a strong theory of change, which uses systems thinking to map cause and effect among different parts of the system it is attempting to change (Elkington, Hartigan and Litovsky, 2010).

Using the case of Buchanan Renewable Energies that set up a power generation arm to build biomass stations to provide energy in Liberia. Elkington, Hartigan and Litovsky (2010) makes an argument that catalysing and supporting this kind of massive systemic change being implemented in Liberia has necessitated an “ecosystem investment” mindset.

Elkington, Hartigan and Litovsky (2010) further support this view by bringing our attention to 4 cases in the movement of “Solar Energy for The Poor” where the focus is to turn the base of the pyramid into energy producers, not just consumers. Using the Case of Solar Aid; Grameen Shakti; India’s Solar Loan Programme and East Africa’s Young Solar Entrepreneur Challenge, the authors put forward evidence that suggests that solar energy enterprises that have found ways of aligning other economic actors behind their proposed business model have had phenomenal success (Elkington, Hartigan and Litovsky, 2010). Investing in efforts that seek to remove barriers from the system and enable the unleashing of broader markets for social change is central the ecosystem approach (Elkington, Hartigan and Litovsky, 2010).

Through this thesis, I aim to explore how social entrepreneurs in South Africa perceive scale and if they have adopted a view of systemic scale as opposed to organisational scale with

regards to spreading their impact. Having explored all the key theories, contextual frameworks on the area of scaling social impact through social entrepreneurship. I then looked at the literature on digital technology to build a case for how it can assist in scaling social impact impact.

## 2.3: Literature of Digital Technology

### 2.3.1: Technology Entrepreneurship

Over the last two decades, the phenomenon of technology entrepreneurship has attracted the interest of researchers and policy makers due to its significant impact upon economic progress (Mosey, Guerrero and Greenman, 2017). Technology entrepreneurship lies at the heart of many important debates, including those around launching and growing firms, regional economic development, selecting the appropriate stakeholders to take ideas to markets, and educating managers, engineers, and scientists (Bailetti, 2012). One of the key conversations within the technology entrepreneurship is the impact on the socio-economic development of a region (Bailetti, 2012).

*“Technology entrepreneurship is an investment in a project that assembles and deploys specialized individuals and heterogeneous assets that are intricately related to advances in scientific and technological knowledge for the purpose of creating and capturing value for a firm.”* (Bailetti, 2012 P40)

Base on the above definition and linking it with Santos’s (2012) view on social entrepreneur’s predisposition or predominant focus on value creation as opposed to value capture. I propose that some social entrepreneurs are equally likely wear the technology entrepreneurship hat to leverage the benefits of using digital technology in their ventures.

The world is entering the Fourth Industrial Revolution marked by a future that holds an even higher potential for human development as the full effects of new technologies such as the Internet of Things, artificial intelligence, 3-D Printing, energy storage, and quantum computing unfold (Baller, Dutta, & Lanvin, 2016). The exponential speed of developments and disruption across all major industries is set to be a defining characteristic, and Information and communication technologies (ICTs) are the backbone of this revolution (Baller, Dutta, & Lanvin, 2016). The future of countries, businesses, and individuals will depend more than ever on whether they embrace digital technologies (Baller, Dutta, & Lanvin, 2016).

Ever since the launch of Uber, Snapchat, and AirBnB and the earlier success of Google, Amazon, and Facebook, a new breed of company has emerged that uses digital technology, entrepreneurship, and innovation to upend industries on a global scale (Stone, 2017).

These multisided platforms would not exist without the explosion of information and communication technologies (ICT). They are only a few years old in some cases, and yet they have ignited very quickly to reach millions of people and have become billion-dollar digital companies. (Stenholm, Acs and Wuebker, 2013; Coad et al., 2016; Aghion, 2017)

On the one hand, they are performing a very traditional service, driving taxis and providing rooms for rent, while on the other hand, they are engaged in business using digital technologies (Aghion, 2017). In some sense, entrepreneurship research has ignored the role that digital technologies play in entrepreneurship, and a significant gap exists in our understanding of entrepreneurship in the digital age. (Sussan and Acs, 2017).

Moving beyond the technology entrepreneurship, its important to make mention of the landscape that surrounds the ventures. There are more than 643 digital innovation centres or technology hubs in Africa positioned to provide a supporting environment (Abrahams, 2021; Weiss, Perkmann and Phillips, 2022). They are community ecosystems aimed at providing the best conditions for long-term business success which have grown from 314 hubs in Africa in 2016; 442 in 2018; 618 in early 2019; and 643 in October 2019 (Abrahams, 2021). This growth implies that a supporting ecosystem which is better equipped is on the rise, through this thesis, I hope to get the sense if this is a lived experience for social entrepreneurs building digital technologies.

This thesis extends this line of thinking and proposes that a gap exists in the literature on social entrepreneurship in the digital age. It aims to contribute to the field of social entrepreneurship research by bringing this conversation into the digital age. Specifically, how digital technologies may play a role in scaling social impact. The term digital technology is intentionally broad to prevent the conversation from referring to one technology (e.g., mobile phones).

This research responds to the call by Sussan and Acs (2017) for entrepreneurship researchers to focus on the digital economy toward understanding high-impact, high-potential, and high-growth businesses that are scalable and create value using digital technologies. It addresses the lack of digital technology-specific research in the social entrepreneurship literature.

To do this effectively, I reviewed literature surrounding the social entrepreneurship ecosystem, scaling social impact and digital ecosystems. Given the importance of scaling social impact, a review of theories and contextual frameworks are discussed below in the context of social entrepreneurship.

Other authors have cautioned against the positivist narrative of technology adoption and its promise to “save” the African continent (Alzouma, 2005; Nyabola, 2018) and (Murthy and Mani, 2013) have indicated that technology rejection is complex and requires careful attention. In this research study, I aim to understand how social entrepreneurs position themselves in South Africa and navigate this space, given some constraints.

### 2.3.2: Opportunity for Digital Technologies in South Africa

“From a global perspective, the business environment has become highly dynamic, unpredictable, and competitive due to external forces – mostly digital technologies – that generate change” - (Jeza and Lekhanya, 2022)

Based on an assessment of South Africa's Networked Readiness Index in the Global Information Technology Report, South Africa received a mixed performance largely due to strides in the overall NRI rankings to 65th out of 143 positions, almost entirely driven by improvements in infrastructure and affordability (Baller, Dutta and Lanvin, 2016). South Africa's digital transformation is mostly business-driven, as the country notably performs best in business usage (32nd), followed by individual usage (77th), followed by government usage (105th) (Baller, Dutta and Lanvin, 2016). This shows that the South African government is the slowest adopter of digital technologies in comparison to private businesses and citizens despite the fact that using ICTs to more efficiently provide services to citizens is an important area where digital technologies can make a difference in generating broad-based gains.

Baller, Dutta and Lanvin, (2016) stress that it does not have to be the government alone that is driving social outcomes, digital technologies can be used in many innovative ways to achieve social impact—for example, in facilitating access to basic services such as healthcare, finance, and insurance.

This point is further reinforced by Littlewood and Holt (2015, who highlight that there are limits to the capacity of South Africa's government to address varied problems. While there may also be insufficient profit-making potential or an absence of requisite functioning market institutions to encourage engagement with these issues by traditional businesses. It is these opportunities that wait for South African social enterprises to act (D. Littlewood and Holt, 2015).

South African Investments in infrastructure have significantly increased international Internet bandwidth and put the country among the top 20 globally on this particular indicator. Furthermore, mobile tariffs have more than halved and broadband tariffs dropped slightly, reducing barriers to adoption also in terms of affordability (Baller, Dutta and Lanvin, 2016). In order for impact to start materializing, significantly more buy-in from the government will be needed across all areas of vision, promotion, and efficient use.

Literature from the field of business/management indicates a comprehension that technology that meet's the real needs of the developing world represents an opportunity to both expand potential markets and increase the quality of life for a large number of people (Hart, 2010 ; London & Hart, 2004). In the context of this thesis, the way social entrepreneurs position technologies within this opportunity space will be explored in detail.

Hosman and Armeiy (2017) highlight that precedents have been set that makes a compelling case for frugal innovation (also known as designing for extreme affordability, or for the other 90%), with notable technological or engineering breakthroughs that make use of location-appropriate technologies. These innovations have the potential for wider adoption across the developing world and might even become "disruptive" technologies for the rest of the world, as the wisdom of frugality applies more widely (Hosman and Armeiy, 2017). I plan to explore how social entrepreneurs account for designing technologies under constrained conditions and what impact this has on the ability to scale their solutions further.

Digital technologies have increasingly become more service-focus, socially embedded, and laden with intensive human interactions, thus a more open, inclusive, global, dynamic, and

flexible view of digital infrastructure (DI) is needed to capture the effects of digitalization (Tilson, Lyytinen and Sørensen, 2010). In this context, the digital ecosystem includes many technologies that power the digital infrastructure, including more powerful chips; the Internet; the World Wide Web; broadband communications; programming languages; operating systems, the cloud and devices (Sussan and Acs, 2017).

Sussan and Acs (2017) introduces a conceptual framework of The Digital Entrepreneurial Ecosystem (DEE) which integrates two existing ecosystem literatures: The Entrepreneurial Ecosystem (EE) with its focus on agency and the role of institutions and The Digital Ecosystem (DE) with its focus on Digital Infrastructure (DI) and users. This research plans to show that the concept of digital entrepreneurial ecosystem can also include social entrepreneurs who wear a technology hat in their social innovations.

(Sussan and Acs, 2017) also Highlights that digital technologies have diffused faster than electricity, telephones, and mobile phones. This is supported by the fact Smartphones penetration is estimated between a 37% to 45% diffusion rate in only 10 years in South Africa, while it took electricity almost 40 years to reach a 10% diffusion rate as indicated in (Qwerty, 2014; Fleischer, 2016; Poushter and Stewart, 2016; Effective Measure, 2017).

Digital technology diffusion has been growing rapidly over the years and is expected to continue to expand from around 8% of GDP in 2015 to around 25% by 2030 (Sussan and Acs, 2017). Mobile technologies and services generated \$110 billion of economic value in Sub-Saharan Africa in 2016, equivalent to 7.7% of regional GDP – a figure expected to grow to \$142 billion (8.6% of GDP) by 2020. In 2016, South Africa had 37.5 million unique mobile subscribers, a 68% penetration rate, compared to Nigeria's 86 million mobile subscribers, representing 45% of the population (Business-Tech, 2017).

(Business-Tech, 2017) has also suggested that South African 3G is almost universal, while 4G networks in 2016 reached quarters of the population. This growth has continued and consequently, the country reached a mobile broadband penetration rate of more than 78.8% in 2022 and is projected to reach 91.3% by 2028 (Cowling, 2023). This provides fertile grounds for social entrepreneur's to start leveraging digital technologies that focus on financial inclusion, healthcare inclusion, education inclusion and other focus areas within the social impact conversations.

This literature review would be incomplete if it did not mention the work done in the field of ICT4D, which seems to be running a parallel conversation, in that this field is also concerned with the success and failures of development projects that leverage ICT's in developing countries.

## 2.3.3: ICT4D Literature

The concept of technology in the social impact space is not new, the conversation about Information and Communications Technologies for Development (ICT4D) which focuses on harnessing ICT for socioeconomic development, with emphasis on driving impact in low-resource or low-income regions has been around for a while now (Gerster and Zimmermann, 2005). Gerster and Zimmermann (2005) explain how the promise of ICT in the development industry has attracted many governments, development organisations, for-profit and non-profit companies, and even individuals, to this conversation.

Unfortunately, the full potential of ICT has proven unattainable, various scholars have attempted to explain this, (Heeks and Kenny, 2002) argue that many technologies promote inequality and divergence rather than equality and convergence and this continues to persist, (Hosman and Armeij, 2017) argues that the neglected “T” or Technology within the ICT4D literature is a big contributor the failed promising. Failure to consider the impact of the technology, hardware, and even electricity and infrastructure is a large oversight in unpacking why the ICT4D is coming short (Heeks, 2007, 2010; Hosman and Armeij, 2017).

Considering the sociology of technology literature that points to the fact that the technology society ends up with is a reflection and embodiment of values of all the actors who contributed to the creation of that technology (Feenberg and others, 2012), thus this thesis research paid close attention to the founder, founding team and designers behind social purpose organisation.

In the article of “connecting the unconnected”, (Friederici, Ojanperä and Graham, 2017) put forward the views that vast sums of money have been invested in projects and plans designed to connect the world’s remaining four billion people without an Internet connection. Motivated by digital connectivity as an instrument to achieve a range of social and economic developmental goals, this line of thinking lacks academic consensus about the actual impacts that digital connectivity (i.e. the Internet) will have on economic development (Friederici, Ojanperä and Graham, 2017).

Friederici, Ojanperä and Graham (2017) also acknowledges that the Internet can indeed have a positive impact on economic growth, but only under certain conditions, such as a threshold level of existing users and infrastructure. This view is supported by the World Bank, which indicates that Internet itself is an undeniable and overwhelming force for good, but does not generate positive development impact everywhere and for everyone in the same way (Deichmann, Goyal and Mishra, 2016). Overall, this line of argument cautions against the view that the introduction of a technological fix will precipitate significant positive change.

The question of why ICT in a development context sometimes works and sometimes does not still remains a subject of enquiry, and prevailing research in this field most often focuses on access, the readiness of a technology or the outcomes of technology use (Thapa and Hatakka, 2017). Starting with the bases that people do not use technology if they do not perceive any possibilities of action (or benefits) from it (Leonardi, 2011), the work of (Thapa and Hatakka,

2017) explores the mechanism of the technology use that leads to the outcomes by leveraging concept of affordances. In this research, affordance is defined as the possibilities for goal-directed action afforded to specified user groups by technical objects (Majchrzak A; Markus ML, 2012).

(Heeks, 2010) Through a method of re-analysing a case from Kenya about ICT use in study circle education, (Thapa and Hatakka, 2017) show that people perceive action possibilities from technologies rather than analysing their properties. This means that in the context of scaling social impact, social entrepreneurs need to

understand what action possibilities people are looking for in a technology. (Thapa and Hatakka, 2017) also highlights that dissemination of proper information (individually or socially) is important to make the affordances perceptible; otherwise, the affordances can be hidden or false or sometimes rejected without understanding the use.

Various projects have been implemented, but the ICT benefits are still far from reaching those who are most disadvantaged (Heeks, 2010; Maail, 2011; Dodson, Sterling and Bennett, 2013). The analysis by (Avgerou, 2010) shows that a large percentage of ICT4D research has remained stuck on the “transfer and diffusion” discourse for the whole ICT4D space. (Zewge and Dittrich, 2015) conducted a systematic mapping study that evaluated journals and conference papers focused on the ICT4D covering 2006 - 2014. This result showed that the field is still in a consolidating phase, with theoretical concepts sparse and not enough research into success factors for implementation.

(Zewge and Dittrich, 2015) highlights that everyone seems to agree that the extent to which these technologies are amenable to the local socio-economic, political, and cultural context in which ICTs are deployed in is crucial and often the biggest determinant for success. It is for this reason that this research will explore how local social entrepreneurs who have a degree of embeddedness with the communities that they operate in will have a higher likelihood of developing context-relevant solutions.

When exploring later work on how digital technologies has been used to scale social impact in adjacent fields, Manyati and Mutsau (Manyati and Mutsau, 2021) set out to explore the factors that hinder the effective utilization of mHealth interventions in antenatal care programmes. The key takeaway from their review is that a myriad of contextual, organisational, and economic factors hinders the scaling up of mHealth innovations in antenatal care programmes in sub-Saharan Africa (Manyati and Mutsau, 2021). More specifically, limited experience with mHealth technologies, low mobile penetration, high cell phone rates, and a lack of standardised and easy-to-scale mHealth interventions rendered the scale-up of mHealth interventions unsustainable in sub-Saharan African countries (Manyati and Mutsau, 2021).

MomConnect provides a counter-narrative for the above. MomConnect is a national initiative Coordinated by the South African National Department of Health that sends text-based mobile phone messages free of charge to pregnant women who voluntarily register at any public healthcare facility in South Africa (Seebregts *et al.*, 2018). These authors (Seebregts *et al.*, 2018) show how it is possible to optimise the architecture of a mobile health project to support

maternal health promotion messaging rapidly with a strong focus on national scalability, ultimately reaching over 1,770 988 unique cellphone numbers.

## 2.4: Literature Review Summary

In this section, I summarise the literature review chapter. The literature review was structured to cover three domains to aid in guiding the rest of the thesis research. I covered literature on social entrepreneurship to set the scene as the field of study by answering what social entrepreneurship is, re-introducing the concepts of value creation and value capture, and lastly, painting a picture of social entrepreneurship in the context of Sub-Saharan Africa.

I then moved my attention to the literature on scaling strategies for social impact as the main phenomenon that this research thesis is concerned with. Here, I unpacked why scaling social impact is important, introduce the moral intensity of the social problem as a theoretical model that guides the decisions to scale social impact and provide a consolidated view of all the scaling strategies commonly used by social enterprises. I then explore the SCALERS framework to understand key drivers/capabilities that can stimulate successful scaling, factors that inhibit scaling social impact and how the social entrepreneur's level of embeddedness affects their ability to scale social impact.

Still under the literature on scaling strategies for social impact, I also engage bricolage in the context of scaling social impact, the role of organisational control in scaling social impact and draw lessons from the fields of social work. I close off my literature review on scaling strategies by looking at scaling through partnerships and discussing scaling through an enterprise approach versus an ecosystem approach.

In the tail end of the literature review chapter, I set out to contextualise the research thesis by covering literature on digital technology, starting by expanding on technology entrepreneurship and exploring opportunities presented by digital technologies in the context of South Africa. I close the chapter with a short review of an adjacent field of ICT4D.

## Chapter 3: Research Approach and Methods

Research focused on discovery, insight, and understanding from the perspective of those being studied offers the greatest promise of making a difference in people's lives (Merriam and Tisdell, 2015, p. 1). When setting to design the research method, I had the intention to leverage the framing of participants as the central component of the research design.

The research is a product of my interest in knowing more about the practice of *how* social impact enterprises are leveraging digital technologies to reach more people and scale their impact. It is positioned to improve scaling practices within social enterprises in South Africa.

In this chapter, a detailed study design is discussed considering the research interest/question. Rarely would anyone start out on trip by just walking out of the door, this chapter documents the logical plan of how the research experience was shaped. Explanations of how data was gathered, through interviews and documents is provided. The chapter also shares details on how the data was managed, analyzed, coded, categorized and how themes are formed towards findings.

### 3.1: Research Approach

In this section, I explain my research approach by introducing the five sub-questions that guided the overall process. Additionally, I explain my decision and logic for choosing qualitative research approach, the types of qualitative research considered and finally provide the rationale for selecting case study. At the end of the section, I explain the type of case study method and the unit of analysis.

### 3.2: Literature on Social Entrepreneurship

I start the review on social entrepreneurship by exploring what it is, introducing the lens that I will use consistently throughout this thesis and providing some basic terminology that will become useful later. I summarise Santos's "value creation vs value capture" framework and then provide some context on Social Entrepreneurship in Sub-Saharan Africa.

#### 3.2.1: Research Sub-Questions

Leedy, Ormrod and Johnson (2019, p. 39 to 40) advocate for researchers to break their main research problem or central question into sub-problems or sub-questions to help focus attention. When designing the research, I expanded the central question of how social entrepreneurs in South Africa are leveraging digital technology to scale their social impact into following sub-questions

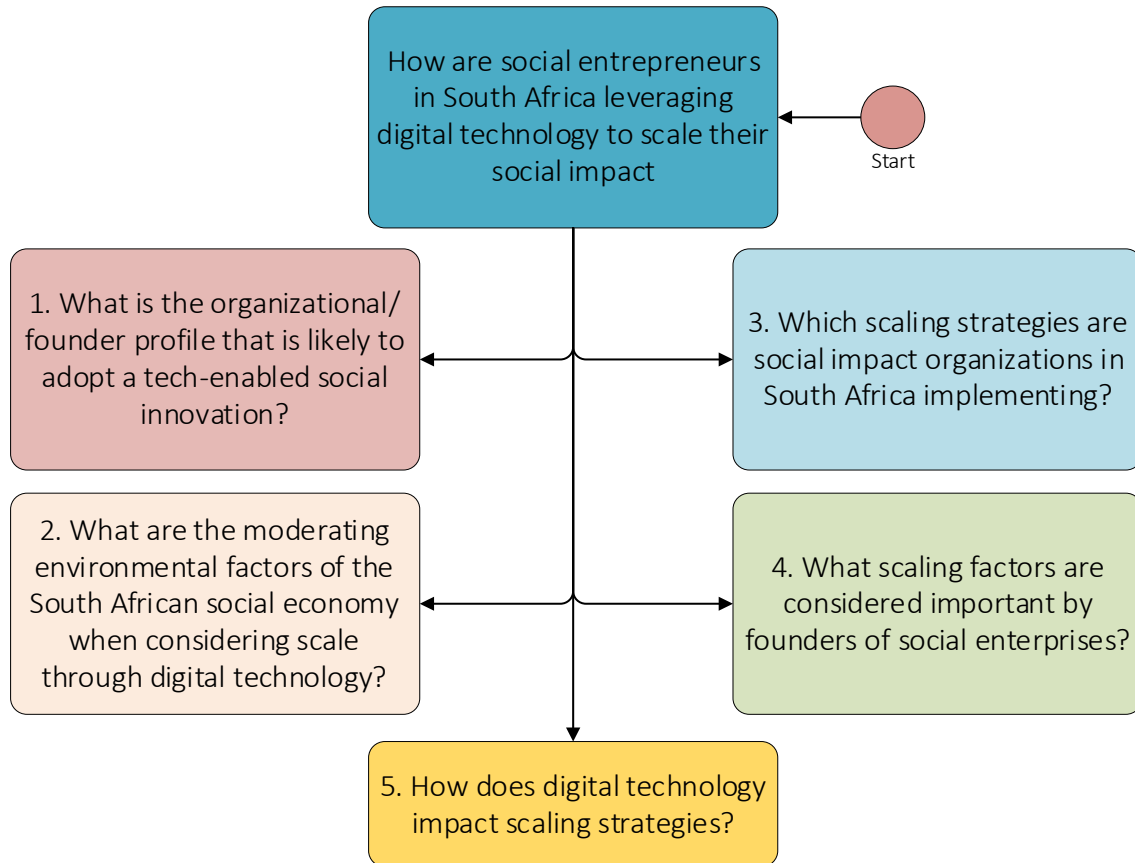


Figure 3—1: The Five Sub-Questions

The sub-questions are structured to meet Leedy, Ormrod and Johnson’s (2019, p. 40) characteristics of sub-questions where each needs to be:

1. Researchable and forms a logical subdivision issue in its own right.
2. Clearly tie to the interpretation of data.
3. Add to the totality of the problem and do not extend beyond the main problem and
4. Smaller in number, recommending 2 to 6.

Yin (Yin, 2014, p. 29) also endorses the use of research sub-questions and research study propositions as they help identify the relevant information to be collected about the individual, small group, event, entity, community and programs.

## 3.2.2: Why Qualitative Research?

Merriam and Tisdell (2015) strongly advocates for “Research Form” to follow the type of “Research Question” being asked. For this thesis the main research question aims to unpack how social entrepreneurs in South Africa are leveraging digital technology to scale their social impact. The thesis research question is positioned to leads the discussion into applied research field, where It can improve the quality of practice in social entrepreneurship. The focus is to understand how people interpret their experiences, how they construct their words, and what meaning they attribute to their experience (Merriam and Tisdell, 2015, p. 15). This research thesis calls for a qualitative design which seeks to understand the meaning that social entrepreneurs have constructed. The overall purposes of qualitative research are to archive an understanding of how people make sense of their lives, delineate the process (rather than the outcome or product) of meaning-making, and describe how people interpret what they experience (Merriam and Tisdell, 2015, p. 15).

Leedy, Ormrod and Johnson (Leedy, Ormrod and Johnson, 2019, p. 228) Indicate that all qualitative approaches have two things in common:

1. *They typically focus on the phenomena that are occurring or have previously occurred in a natural setting or the real world.*
2. *They involve capturing and studying the complexity of those phenomena without trying to simplify or quantify what is observed. The qualitative approaches recognise that the issue has many dimensions, layers and should be portrayed in*

In this research thesis, the scaling strategies of social entrepreneurs is part of the phenomena that occurs in the real world. It was my intention to understand the complexities and nuances that the social entrepreneurs encounter when developing their scaling strategies. It was not my intention to arrive at a level of granularity that identifies cause-and-effect but to rather provide a multifaceted description that provides some insights on the role that digital technologies play in scaling strategies for social impact (Leedy, Ormrod and Johnson, 2019, p. 230)

As discussed in the literature review, this research took a position that existing theories failed to adequately help us understand how social entrepreneurs were leveraging digital technology to scale their social impact in South Africa. For this reason, this research, aimed to gather data to explore and provide a multifaceted description that helps understand this area better by following inductive process for knowledge contribution (Creswell and Creswell, 2018, p. 17).

I was personally drawn to a qualitative approach because it afforded me the opportunity to connect with the research participants (fellow social entrepreneurs delivering impact in my country) through unpacking their lived experiences, to see the world through their viewpoints, take a holistic and comprehensive approach on scaling strategies, attempt to make order out of seeming disorder and explore complex relationships with the hope of uncovering meaning that could be relevant to practitioners like myself who are actively building scaling strategies (Corbin and Strauss, 2014, p. 5).

Not knowing what I would learn, I liked the fact that qualitative research allowed me to keep the research design for the thesis emergent and flexible with the ability to abandon what is not working, respond to changes as I go along (Merriam and Tisdell, 2015, p. 18).

### 3.2.3: What Type of Qualitative Research?

Since qualitative research is the umbrella term, this section details the approach in more detail. I started off by reviewing all the 6 approaches of qualitative inquiry while keeping the main research question top of mind for fit.

(Merriam and Tisdell, 2015, p. 22; Creswell and Poth, 2017, p. 67; Creswell and Creswell, 2018, p. 13; Leedy, Ormrod and Johnson, 2019, p. 230) break down the 7 qualitative research design approaches into the following:

1. **Basic Qualitative Research** – associated with not choosing a type of qualitative study. Can sometimes be labelled as common, generic, or just interpretative study. This form does not have additional dimensions as the other types below.
2. **Phenomenology** – associated with a focus on the experience transformed into consciousness. Only interested in the lived experience. It is the study of people conscious experience of the lifeworld, everyday life, and social actions. These studies can be intense human experiences such as love, anger and so on. This type is chosen when the research is concerned with understanding affection, emotion, and intense human experience.
3. **Ethnography** – considered to be both a process and a product, has a deep focus on human society and culture. A researcher would be looking at the beliefs, values, and attitudes that structure the behavior patterns of a specific group of people. To gauge this well, deep immersion in the site as a participant observer becomes the primary data collection method.
4. **Grounded Theory** – associated with building substantive theory that emerge from constant comparative data analysis, useful in answering questions of process and how things change over time. The researcher must derive a general, abstract theory of a process, action or interaction grounded on the views of participants.
5. **Narrative Inquiry** – associated with stories and narratives. The stories themselves are used as data often on a first-person account with a beginning, middle and end. This type helps with accessing human actions and experiences. The researcher would study the lives individuals, with stories retold or restoried into narrative chronologically.
6. **Content Analysis** – associated with detailed and systematic examination of the context of a particular body of material to identify patterns, themes, or biases.
7. **Qualitative Case Studies** – associated with an in-depth description and analysis of a bounded system. Its particularly suited for when the phenomenon and the context cannot be separated easily. The case is the object of the study, the bounded system, the one thing that is being studied and fenced in by time, activity, location, or other parameters. A unit of analysis defines the case, not the topic being investigated. Cases can use variety of data sources using a variety of data collection procedures over a sustained period.

After careful consideration, I selected a qualitative case study design approach. It provided a higher level of flexibility in how I can construct the boundary of the case. I considered grounded theory, but my research objective and motivation were not to develop a theory or a model that can tie things together. Case Study research design approach enables rich description that allowed for me to develop a diverse set of learnings from analysing the scaling strategies that these social enterprises developed. The opportunity for rich description also connected well with my personal objective as a social entrepreneur hoping to learn from other successful social entrepreneurs in my context. Baxter and Jack highlights case study's ability to inform professional practice and evidence-informed decision making (Baxter and Jack, 2008).

Baxter and Jack (2008) also affirms the ability of a rigorous qualitative case studies to afford researchers opportunities to explore or describe a phenomenon in context.

With my main research questions positioned in the form of a "how" question, Yin (Yin, 2014, pp. 11 & 29) puts forward the view that Case Study, History, or Experiments are extremely well positioned as research methods for their explanatory nature on "how" and "why", while "who", "what", "where", "how many" and "how much" are not always linked with substantively important issues in a research thesis. History is a preferred method when there is virtually no control or access to the phenomena, while Experiments are preferred when the investigator or researcher can manipulate behavior directly, precisely, and systematically (Yin, 2014, p. 12). This distinction further affirms my decision for choosing Case Study as part of my research design approach. In the following section, I provide details of the Case Study Design taken.

### 3.2.4: Case Study Design

(Yin, 2014, p. 16) provides a two-fold definition of case study with the first part defining the case as an empirical enquiry that investigates a contemporary phenomenon (the "case") in depth and within its real-world context, especially when the boundaries between the phenomenon and the context may not be clearly evident. In the second part, Yin (Yin, 2014, p. 17) aims to deal with the blurriness by extending the definition to offer the following features of a case study.

*"A case study inquiry*

- *cope with the technically distinctive situation in which there will be many more variables of interest than data points, and as one result*
- *relies on multiple sources of evidence, with data needing to converge in a triangulation fashion, and as another result*
- *benefit from the prior development of theoretical propositions to guide data collection and analysis."*

Beyond the definition of a case, the research questions (case study questions) and propositions. Yin (Yin, 2014, p. 29) introduces a Case's Unit(s) of Analysis as one of the 5 components that make up case study research design. In keeping with this requirement, I selected the unit of analysis as a set or small group of social entrepreneurs and the

phenomenon being investigated as the role of digital technology on scaling strategies deployed. I also decided to bound the case to guide the data collection by constraining the set to South African social enterprises and using a digital technology as a core to their social innovation (Yin, 2014, pp. 33 & 34). I go into more detail about the criteria used later in sample selection.

In finalizing the case study research design, I had to choose between a holistic (single-units of analysis) vs embedded (multiple units of analysis) and single-case design vs multiple-case design (Yin, 2014, p. 50). Recognising that a single-case study can be structured to involve units of analysis at more than one level of analysis and the resulting embedded units analysis allows a researcher to explore the phenomenon in slightly different operational details that reflects varying orientations (Yin, 2014, p. 53 to 54). I selected an embedded case study research design that would involve multiple social entrepreneurs (embedded units of analysis) within one small group (those leveraging digital technology) to form my main case (Case 1).

In acknowledging that multiple-case design is considered more compelling and robust because it enables multiple experiments when following a replication design, increases the chances of doing a better case study research, provides possibility of direct replication, provides better analytical conclusion, and can be used to highlight contrast (Yin, 2014, p. 56 to 64). I combined a multiple-case design together with embedded case study to finalize my research design approach as an embedded multi-case study. The second case (Case 2) is a small group of social entrepreneurs that are scaling their social impact without using a digital technology as a core of their social innovation.

This approach also helped me clearly outline the boundaries of each case while being intentional about describing scaling strategies of social enterprises in South Africa (Baxter and Jack, 2008).

It was my hope that a two-case, multiple or collective case approach will aid with indirect comparison or contrasts that contributes a deeper level of understanding of the phenomenon even though this research thesis is a descriptive instead of a comparative case study. A multiple or collective case study can aid increasing the robustness, reliability and transferability (Baxter and Jack, 2008).

The following figure is an adaptation of Yin’s (2017, p. 48) Basic Type of Designs for Case Study as applied to my research design approach.

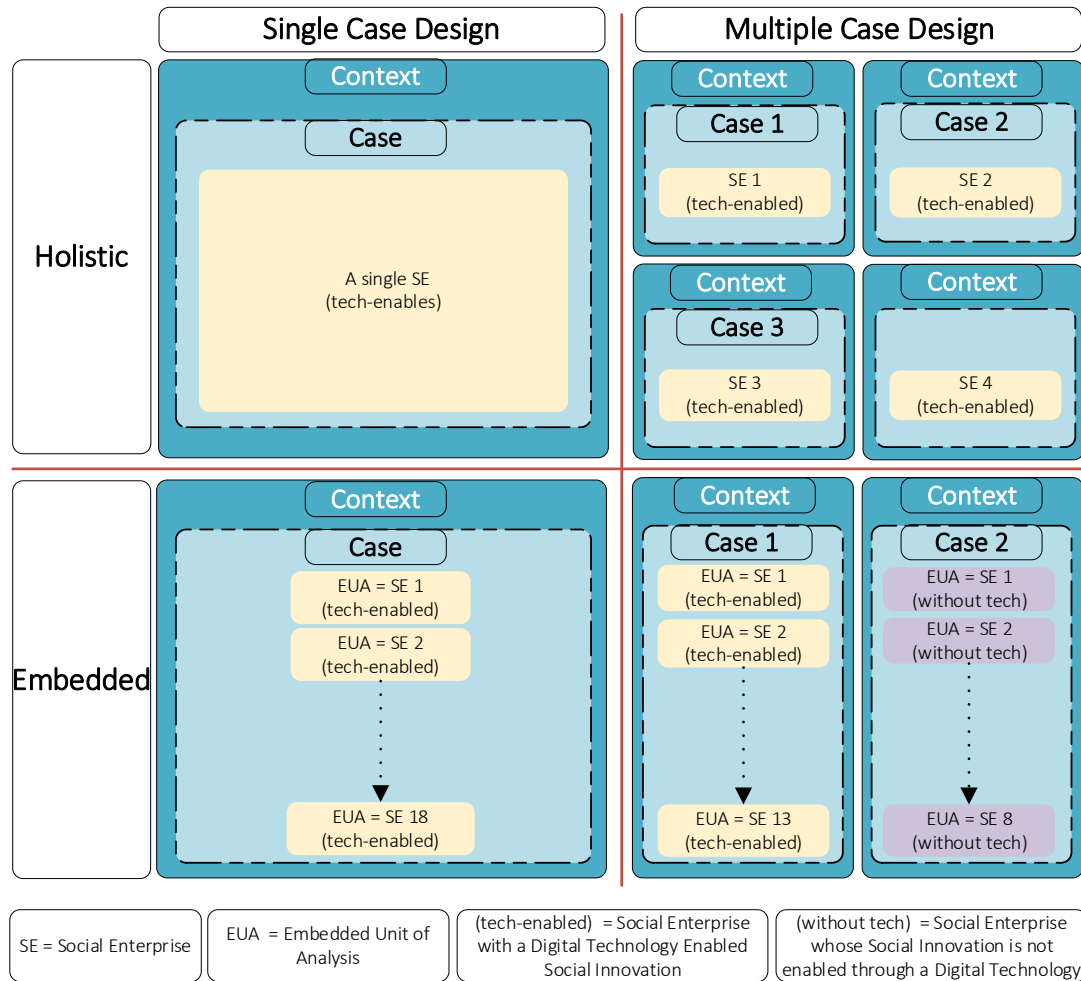


Figure 3—2: Case Study Design

Case 1 of this study is a set of South African social enterprises that are concerned with scaling their social impact by **leveraging a** digital technology as a means of delivering social impact, this forms our first bounded system.

Case 2 of this study is a set of South African social enterprises that are concerned with scaling their social impact **without the use of a** digital technology as a means of delivering social impact.

## 3.3: Data Collection

In this section, I explain the data collection approach by first explaining how I arrived at the final decision on the sample selection that would make up the cases. I then explore data collection design that mainly consists of interviews. After that I share the process for developing the interview guideline, how I went about conducting the interviews and the techniques used while transcribing.

### 3.3.1: Sample Selection

In planning out the data collection phase, I needed to first determine how many social enterprises to talk to. The sampling challenge arises from needing to know which specific units to select and why, as well as the number of the units that are to be in a study (Yin, 2011). The final selection involves a process of choosing “whom”, “where”, “when” and “what” to observe or interview (Saunders, Lewis and Thornhill, 2015, p. 151). In the context of a qualitative study, sample selection often (not always) needs to be non-random, purposeful and small as, opposed to larger, more random studies in qualitative research (Merriam and Tisdell, 2015, p. 18). This results in reduced possibility of generalization of the research results in a statistical sense (Merriam and Tisdell, 2015, p. 96). After careful consideration, I ended up choosing to use a non-probability sampling approach.

Understanding that a number of authors with qualitative research differentiates between types of purposeful sampling, with the main common types being typical, unique, maximum variation, convenience, snowball and chain sampling (Creswell, 2012; Miles, Huberman and Saldana, 2014; Merriam and Tisdell, 2015; Patton, 2015; Yin, 2016). For this research thesis, I decided to draw significantly on Patton (2015) views on sample selection and purposeful sampling.

Patton (Patton, 2015) defines purposeful sampling as a technique used in qualitative research to identify information rich participants that provides the most effective use of limited resources. The author also highlights that qualitative inquiry typically focuses in depth on relatively small samples, noting that studying information rich cases yields insights and in-depth understanding rather than empirical generalizations (Patton, 2015). Information-rich cases are those from which we can learn a great deal about the issue of central importance to the purpose of the inquiry (Merriam and Tisdell, 2015, p. 96).

To gain access to the participants that would help provide the most insights, I choose to combine three sampling types to improve credibility and the likelihood to produce information-rich cases as highlighted by Merriam and Tisdell (2015):

- a. *Convenient Sampling – Selection associated with access, time, funding, location, and availability of participant.*
- b. *Snowball Sampling– Selection associated with network that forms because of participants nominating other possible participants based on the communicated criteria and phenomenon.*

- c. *Maximum Variation Sampling – Selection associated with varying instances of the phenomenon.*

Typical Sampling style was not considered an effective sampling style since I had a narrow definition of the participants that are developing scaling strategies for social enterprises. Maximum variation is added as a type based on a recommendation from Yin (Yin, 2016) that Case Units be chosen to obtain the broadest range of information and perspectives on the subject of study. It was part of the design to also find participants possibility of holding a different view when it comes to how to scale social impact.

After reviewing the recommendation from LeCompte and Schensul (2010) on criterion-based selection, I personally developed the following selection criteria for Case 1 (Social Enterprises leveraging a digital technology for delivering social impact) and used it as the application of purpose sampling in this research thesis. I developed the criteria before going out to find the Social Enterprises to form Case 1 and Case 2.

*Table 3—1: Purposeful Criteria for Selecting Social Enterprises to form in Case 1*

Criterion 1	<b>Social Impact:</b> The enterprise exhibits a strong orientation towards social value creation, and the organisation identifies as a social enterprise
Criterion 2	<b>Digital Technology:</b> The core offering involves a digital technology that clients/users can engage with to gain value. Additionally, the digital technology has the potential to reach more people with limited organisational resource deployment when compared to Organisations that have manual or conventional delivery implementation without leveraging any digital technology.
Criterion 3	<b>Local Region:</b> The social enterprises operations are based in South Africa and/or has a significant operation in the South Africa and the headquarters are in South Africa
Criterion 4	<b>Stage:</b> The enterprise has completed the product development phase and has a product in the market that users/clients can engage to gain value. Similarly, the organisation should still be on the growth stage of with their digital technology.
Criterion 5	<b>Scale:</b> The enterprise has developed a scaling strategy or is in the process of developing a scaling strategy to reach more users/clients.

**Note:** A similar criteria was used for selecting Social Enterprises in Case 2 - Non-Tech-SE i.e., those Social Enterprises *not* leveraging a digital technology as an instrument of delivering social impact. In developing Case 2, Criterion 2 in the above table that relates to Digital Technology is removed while the rest of the criteria is still applied.

The Case 2 sample is developed to help uncover scaling learnings from social entrepreneurs in South Africa that are concerned with scaling their impact without a digital technology at core of the social innovation. This approach provides a more rigorous approach to investigating the role of digital technology in scaling social impact in a comparative way between social enterprises that are leveraging digital technology and those that are not.

To find willing participants with target organisations, I decided to leverage my networks of social entrepreneurs in South Africa, first starting with Social Entrepreneurs that had previously shared the same co-working space in Johannesburg and whose work was already familiar to me. The pre-existing connection to the initial set of social entrepreneurs increased the likelihood of participants willingness to say yes to a detailed interview that explores the organisations scaling strategy. This also facilitated my ability to conduct the pilot interview faster, learn and iterate on the questions. This approach combined convenience, snowball, chain and network elements within the context of purposeful sampling (Merriam and Tisdell, 2015, p. 97 to 99) .

To increase variation in profile and sectors, I looked through social and tech entrepreneurial competitions, prestigious social entrepreneurial awards, social entrepreneurship fellowships, social entrepreneurial ecosystems that would enable me to identify participants that would form part of the sample group.

The social entrepreneurs selected for this research thesis have been winners, finalists, or top candidates in prominent social entrepreneurship competitions in South Africa and abroad. I filtered for only those operating businesses in South Africa. Some of the social competitions and awards that I looked through are included in the Table 5 below:

Table 3—2: List of Social entrepreneurial Competitions, Awards and Fellowships

##	Social entrepreneurial competitions, awards & fellowships	Region + Comments
01	Ashoka Africa Fellowship	Global – Focused on SA Finalists
02	Schwab Foundation - Social Innovator of the Year	Global – Focused on SA Finalists
03	The Skoll Foundation - Skoll Award for Social Entrepreneurship	Global – Focused on SA Finalists
04	MIT Solve (Finalists)	Global – Focused on SA Finalists
05	The Google Impact Challenge	Global – Focused on SA Finalists
06	ITU Telecom World SMME Awards	Global – Focused on SA Finalists
07	The GSMA Mobile for Humanitarian Innovation Fund	Global – Focused on SA Finalists
08	World Design Impact Prize	Global – Focused on SA Finalists
09	MTN App of The Year	Annual National Competition
10	Western Cape Premier’s Entrepreneurship Recognition Awards (PERA)	Provincial Competition – Region Specific
11	SAB Foundation - Social Innovation & Disability Empowerment Awards	Annual National Competition – South African Finalists
12	MEA Markets - African Excellence Awards	Global – Focused on SA Finalists
13	Africa Business Heroes	Global – Focused on SA Finalists
14	Gibs - Festival of Ideas	Annual National Competition
15	UCT - Social Innovation Lab	Region Focused
16	UCT + SAB Foundation - The Student Seed Fund (SSF)	Region Focused
17	Hearing Technology Innovator Award	Global – Focused on SA Finalists
18	Global Excellence Awards 2022	Global – Focused on SA Finalists
19	The Mandela Washington Fellowship for Young African Leaders	Pan African Focus – South African Finalists
20	DBSA - Youth Innovation Challenge	National Competition
21	Gauteng Accelerator Programme’s ICT Awards	Provincial Competition
22	Gauteng Accelerator Programme’s Climate Innovation Award	Provincial Competition
23	Chivas Regal: The Venture Awards	Global – Focused on SA Finalists
24	African Innovation Summit – Awards	Pan African Focus – SA Finalist
25	Innovation Prize Africa (IPA)	Pan African Focus – SA Finalist
26	Global Social Venture Competition	Global – Focused on SA Finalists
27	Alphacode	Annual National Competition
28	Bank of America Merrill Lynch – Social Entrepreneurial Awards	Global – Focused on SA Finalists
29	AfricArena Entrepreneurial Awards	Pan African Focus – SA Finalist
30	SEED South Africa Award	National Competition
31	European Innovation Council (EIC) - Horizon Prize	Global – Focused on SA Finalists
32	SeedStars World Challenge	Global – Focused on SA Finalists
33	Global Entrepreneurship Summit	Global – Focused on SA Finalists
34	Global INDEX Design Awards	Global – Focused on SA Finalists
35	Better Living Challenge	Global – Focused on SA Finalists
36	The Tech for Global Good Awards	Global – Focused on SA Finalists
37	AfriSam-SAIA Sustainable Design Award	National Competition

38	The Sankalp Global Awards	Pan African Focus – SA Finalist
39	Acumen-Unilever Social Innovation Challenge	Pan African Focus – SA Finalist
40	Afri-Plastics Challenge	Global – Focused on SA Finalists
41	Echoing Green	Global – Focused on SA Finalists

In addition, I also looked through the social entrepreneurial ecosystem of funders and communities mentioned below in table to finding participants to include.

*Table 3—3: List of Social Entrepreneurial Ecosystem, Impact Funders and Communities*

##	The Social Entrepreneurial Ecosystems and Funding Network	Comments + Region
01	Red Bull Amaphiko Program	Now FURTHER Impact
02	The ygap Accelerator Program	National – SA
03	The Branson Centre of Entrepreneurship	National – SA
04	The Innovation Hub	Multi-Programs - Gauteng
05	SABS Design Institute	Gauteng Only
06	mLab Southern Africa	National – SA
07	UCT - Bertha Centre for Social Innovation and Entrepreneurship	Cape Town + National
08	UCT – GSB – MPhil in Inclusive Innovation and MBA programs	Cape Town + National
09	UCT – GSB – MTN Solution Space	Cape Town Only
10	FNB - The Social Entrepreneurship Impact Lab (SEIL)	JHB and Cape Town
11	Fetola - Business Growth Professionals	JHB and Cape Town
12	Wits - Tshimologong - Digital Innovation Precinct	JHB Only
13	UCT - GSB - MTN Solution Space	Cape Town Only
14	The Mastercard Foundation	National + Global
15	Omidyar Network	National + Global
16	The Rockefeller Foundation	National + Global
17	Edge Growth - Vumela Fund - FNB Business	JHB + National
18	Diageo – Sustainable, Innovative Technologies Fund and Program	National
19	Technology Innovation Agency Fund	National
20	IDC – Social Employment Fund	National
21	Seed - World Summit on Sustainable Development	National + Global
22	The Raymond Ackerman Academy of Entrepreneurial Development	JHB and Cape Town
23	The Allan Gray Orbis Foundation	National
24	E-Squared Impact Investment Fund	National

In the research design, I also made provision for a two-tier sampling process which is normally necessarily in qualitative case studies as recommended by Merriam and Tisdell (Merriam and Tisdell, 2015). Not all the individuals in the social enterprise needed to be interviewed, observed, or analyzed. A second-tier sampling selection seeking to answer whom, for which, typical and convenient purposeful sampling type was again used. A minimum of one participant per social enterprise was used for interviews. The table below explains the second-tier sample selection criteria that was used to determine who in the embedded units of analysis or in the social enterprise needed to be my focal point.

Table 3—4: Second-Tier Purposeful Sampling Criteria

Criterion 1	<b>Social Entrepreneur:</b> The Executive or Founder self identifies as a social entrepreneur - combining new venture creation process with social impact in communities
Criterion 2	<b>Senior or Leadership Position:</b> The participant forms part of the senior executive management team in a social enterprise and is in a decision-making role that influences the growth of the organisation.
Criterion 3	<b>Scaling Strategy:</b> The participant plays a strategic role in the social enterprise and has a significant influence in shaping the scaling strategy of the enterprise,
Criterion 4	<b>Institutional History:</b> The participant has been with the enterprise long enough to know associated challenges linked with past scaling attempts.

Merriam and Tisdell (Merriam and Tisdell, 2015) highlights that number of participants needed for any qualitative research depends to on the question being asked. Lincoln and Guba (Lincoln and Guba, 1985) recommends that qualitative research should engage participants until a point of saturation or redundancy occurs, reaching this point means that the researcher is hearing the same information from new participants.

Recognising that qualitative inquiry is rife with ambiguities when it comes to sample size, Patton (Patton, 2015) highlights that sampling to a point of redundancy exist when researcher has unlimited timelines and unconstrained resources. Patton (Patton, 2015, p. 246) rather recommends that qualitative sampling designs specify a minimum sample size based on expected reasonable coverage of the phenomenon given the purpose of the study and stakeholder interests. Acknowledging that I had limited time and resource for finishing this thesis research, I rather decided to adopt the approach of setting a minimum sampling size while simultaneously looking out for point of redundancy in the responses.

Drawing on the work of Marshall, Cardon, Poddar and Fontenot titled Does Sample Size Matter in Qualitative Research? A Review of Qualitative Interviews in is Research which explores varying guidelines from various qualitative methodologist on sample sizing (Marshall *et al.*, 2013). I set out to determine the range that would form the basis for a minimum sample size for this research thesis.

Marshall et al (2013)states that case studies are among the most difficult types of qualitative research to determine the sample size for. Yin (2017) recommends a minimum of 6 sources of evidence. This can mean 6 interviews within a case. Creswell (2006) recommends 4 to 5 cases with each case needing to have 3 to 5 interviewees. This means an effective range of 12 to 25 interviews withing a single or multi-case design.

For grounded theory studies, Creswell (2006) recommends 20 to 30 while Denzin and Lincoln (2017) recommend 30 to 50 interviews. Morse et al (2001) recommends 20 to 30 interviews with 2 to 3 interviews per person. For phenomenology, ranges vary from 6 to 10 (Kuzel, 1992; Morse, 2000; Denzin and Lincoln, 2017).

Taking all of this into consideration, I chose an initial minimum sample size of 18 participants as a tentative sample for reasonable coverage of the phenomenon, research question and case study design (Merriam and Tisdell, 2015). After which, an assessment for saturation and redundancy was performed. This initial minimum selection of 18 interviews is also influenced by the recommendation of Marshall, Cardon, Poddar and Fontenot when they concluded that that most qualitative cases studies that rely on interviews as a method should range between 15 to 30 interviews (Marshall et al., 2013).

I had initially designed and planned for the data collection phase to run simultaneous with data analysis phase to ensure that recognition for redundancy is built into the process (Merriam and Tisdell, 2015, p. 101). However, in practice, that proved more difficult, and I adjusted my approach as it made more sense for me to keep on interviewing participants first with a minimum target size of 18 social impact enterprises. Nine of which are leveraging digital technology which forms part of Case 1 while the remaining nine that are not leveraging a digital technology to make up Case 2.

In practice, when I had reached the target of 18 participants, I recognised that I had not discovered some components about scaling strategies that I had initially picked up in the literature review, especially for the Case 1. I then decided to continue lining up more interviews with social enterprises that had a digital technology withing their social innovation. By the time I interviewed my 22<sup>nd</sup> social entrepreneur, I started to sense the saturation point while sitting in the interview and not hearing anything new. I had passed my initial target of 18 and sensed that I had enough data to start the transcription process that would lead me into the data analysis phase. My final sample size for the study ended being 22 Interviews and I transcribed 21 of these. During the 22<sup>nd</sup> and Final Interview, I felt that everything the participant said was something I had heard before. It offered me nothing new, insightful or interesting to work with giving me the sense that I have reached the saturation point.

### 3.3.2: Data Collecting Design

In this subsection I explore multiple data collection approaches such as interviews, Observations, Documents and other sources. I also give the rational for my choices that led to my research design.

## 3.3.2.1. Interviews

Data collection is about asking, watching, and reviewing (Wolcott, 1992). Most forms of qualitative research involve interviews, I interview people to find those things that cannot be directly observed (Patton, 2015). Since scaling strategies cannot just be observed, this makes interviews particularly suited for this research thesis. (DeMarrais, 2004) defines research interview as “a process in which the researcher and the participant engage in a conversation focused on questions relating to a research study”. Interviews are also the best technique to use when conducting intensive case studies of a few selected individuals (Merriam and Tisdell, 2015). Patton (Patton, 2015, p. 426) provides the following explanation:

*“We interview people to find out from them those things we cannot directly observe.... We cannot observe feelings, thoughts and intentions. We cannot observe behavior that took place at some previous point in time. We cannot observe situations that preclude the presence of an observer. We cannot observe how people have organized the world and the meanings they attach to what goes on in the world. We have to ask people questions about those things.*

*The purpose of interviewing, then is to allow us to enter into the other person’s perspective.”*

The interview is the main road to multiple realities and its these interviews that aid in discovering and portraying the multiple views of the case study (Stake, 1995, p. 64). I particularly, expected each participant to have unique experiences, special stories and contributions to share that would not fit well in a survey for a qualitative case (Stake, 1995, p. 65). For this research design, I chose interviews as the most appropriate data collection method since they will provide better data, at affordable cost and time (Merriam and Tisdell, 2015).

A characteristic of all form of qualitative research is that the research becomes the primary instrument for data collection and analysis (Merriam and Tisdell, 2015, p. 16). Building understanding was the main goal for this research and I took the opportunity to become the human instrument that conducted the interviews. This meant having the opportunity to immediately respond and adapt during the interview and the analysis phase of the journey. I had the opportunity to summarize and check-in with the participants for clarity, accuracy and interpretation in the interview and after.

I selected semi-structured interview format as it freed me from adhering rigidly to questions that may not allow me to access perspectives and understanding of the participants that had spent a lot of time thinking about scaling strategies (Merriam and Tisdell, 2015). The interview questions were flexibility worded, allowing for a mix of structured and less structured questions that can be addressed by all the participants as they share their world view (Merriam and Tisdell, 2015).

Since, I was interested in each participant's unique journey and wanted then to share their social enterprises strategies and personal views in a safe environment. I also decided on one-on-one interviews instead of focus groups. The goal of the thesis research is to provide rich varying description on scaling strategies instead if a constructivist perspective developed by a group (Merriam and Tisdell, 2015).

### 3.3.2.2. Observations, Documentations and Videos

Observations generally take place in a setting where the phenomenon of interest naturally occurs rather and observational data are supposed to represent a firsthand account of the phenomenon (Johnston, Leach and Liu, 1999). In this research design, I chose to exclude observation since the phenomenon of interest is scaling strategies leveraged by social entrepreneurs, which are not easily observable in a physical setting. The process of scaling a social innovation would require an extended period (possibly years) of observation to capture the phenomenon through observations, spending a day or two in a social enterprise or their issue area would not enable me to observe their scaling strategy. Given the limitation on timeline and resources for this research thesis, I chose to eliminate observations as a viable data collection option.

Initially, I had set out to include documents and videos as part of developing the case. These had to be ready-made source of data that were easily accessible about the participant, the social enterprise and hopefully elements of their scaling strategy. I took inspiration from Yin's (2014, p. 106) Six Source of Evidence to include documentation, archival records, interviews, direct observations, participant observations and physical artifacts.

While reviewing the website for the first Social Enterprise, watching interview and YouTube videos, collecting articles about the work they do, the story of the organisation and the founder's motivation for starting the organisation. I started to get the sense that it would be difficult to maintain a chain of evidence about the source of the data through referencing without compromising the confidentiality of the social entrepreneur and the social enterprise.

Appending D shows a redacted version of the first 5 online articles about the first social enterprise. Despite articles being available openly online, as soon I tried to reference the article as a source, I realized that I would be compromising the confidentiality offered to the social entrepreneur and by extensions to their social enterprise. Additionally, the articles provide basic information about the social innovation and the founders journey but lacks detail on the scaling strategy as the main topic of this research thesis. I collected articles and videos about the first three social enterprises and eventually realized that this information will not help my data collection objectives. I stopped collecting documentation and videos and excluded these from the data collection.

I requested for access to any documentation that outlines their scaling strategy and how they plan to grow their impact from the first, second and third social entrepreneurs I engaged with. I asked for documentation such as a Business Plan, a funding proposal or an impact investor

deck. The participant did not feel comfortable with sharing this level of detail with me despite having built a good relationship leading to the interview stage. It felt deeply intrusive even to me, and I decided to settle for leveraging the interviews to gain insights. Fortunately, the level of detail in the interviews made up for not having additional documentation to develop the case study.

### 3.3.3: The Interview Guide

The interview questions in this research were structured to be brief, simple but encourage detailed descriptions. They were then followed by probing question based on my need to search for meaning. A combination of introductory, follow-up, probing, specifying, indirect, structuring and interpreting questions are brought together to develop the interview guide with variety.

Kvale (2008) advises against using a consistent type of question which can result in a predominantly emotional, monotonous or conceptual interview. I actively listened to the participants to ensure that I take opportunities to probe for dimensions that I wanted more details in.

Kvale (2008) makes a case that qualitative research is well suited for using leading questions to repeatedly check the reliability of the participants' answers. This is when the leading question is preceding an answer from an open question. The author highlights that the leading questions may enhance the reliability of the interview. I took the opportunity to provide leading questions to explore sub dimensions of interest to this research thesis.

I also took inspiration from Patton's (2014) "Six Types of Interview Questions" and Merriam and Tisdell's (2015, p. 119) guide for "Asking Good Questions" to build an Interview Guide that has a mix of the following:

1. Opinion and values questions: Personal beliefs and opinions
2. Knowledge questions: Elicit a participant's factual knowledge about a situation
3. Hypothetical questions: Elicit a participant to speculate
4. Ideal questions: Elicit information and opinion

The table below is the Interview Guide I developed to aid me in managing the interview process, Table 3–5 represents the set of questions I asked in the semi-structured interviews with the associated sub questions and probes

Table 3—5: The Interview Guide

<p>Q1: Can you tell me about yourself and the work that you do?</p> <p>Follow-up Q1.1 – Background and skills of the founding team?                  Follow-up Q1.2 - How the social venture was started?   What is the social innovation? → origin story   moment of obligation   Why this social issue.                  Follow-up Q1.3 - Organisational journey? → social venture development   Solution development journey</p> <p><b>What I am I listening out for:</b>                  # Social Improvements   # Defining characteristics of the social innovation   # Value capture vs value creation   # Skills, specialized individuals   # Organisation Values</p> <p><b>Research sub-questions or key component of the research question:</b>                  [1] What is the organisational/founder profile that is likely to adopt a tech enabled social innovation?</p>
<p>Q2: What is your opinion on the state of social entrepreneurship in South Africa?</p> <p>Follow-up Q2.2 – What makes social entrepreneurship relevant in South Africa? → Context building                  Follow-up Q2.3 – Main challenges and enablers in South Africa?                  Follow-up Q2.3 – Can you reflect on your organisation’s context? → Specific Impact   Structure</p> <p><b>What I am I listening out for:</b>                  # Who, Why, What   # Ecosystem,   # Differentiation from NGO’s and other organisations   # Competitive   #Sector Infancy   # Funding   # National framework for social enterprises</p> <p><b>Research sub-questions or key component of the research question:</b>                  [2] What are the moderating environmental factors of the South African social economy when considering scale through digital technology</p>
<p>Q3: I am interested in your views about scaling social impact?</p> <p>Follow-up Q3.1 – What does scale mean for your organisation?                  Follow-up Q3.2 – Have you needed to consider scale? → Stage of the business   What was happening                  Follow-up Q3.3 – Experience and challenges?</p> <p><b>What I am I listening out for:</b>                  # Checking if scale is a priority   # Views about reaching more people   # Observation about general market   # Scaling challenges in organisation   # When did they start thinking about scale</p> <p><b>Research sub-questions or Key component of the research question:</b>                  [3] Which scaling strategies are social impact organisations in South Africa implementing?</p>
<p>Q4: Can we talk about a few cases of social enterprises that you feel are doing great work in South Africa and Scaling well?</p> <p>Follow-up Q4.1 - How have they evolved their scaling strategy?                  Follow-up Q4.2 - What factors makes them stand out for you?                  Follow up Q4.3 - What has not worked for them? And why?</p> <p><b>What I am I listening out for:</b>                  # Existing scaling strategies that work   # Organisational role modelling   # Benchmarking</p>

*# Key enablers and positioning | # Can strategies be copied?*

**Research sub-questions or Key component of the research question:**

**[4]** What scaling factors are considered important by founders of social enterprises?

Q5: How is your social enterprise planning to or already scaling its impact? Do you have a strategy?

Follow-up Q5.1 – When did your social enterprise start thinking about scaling its impact?

Follow-up Q5.2 – What was the process for developing the scaling strategy? Influencing factors?

Follow-up Q5.3 – Which of your stakeholder play/played a significant role in your scaling strategy decision?

Follow up Q5.4 - Common impact scaling strategies that you've come across in South Africa

**What I am listening out for:**

*# Strategy development process | #Actors involved in developing the scaling strategy | #Influencing factors when developing a strategy | #Awareness of other scaling paths*

**Research sub-questions or Key component of the research question:**

**[3]** Which scaling strategies are social impact organisations in South Africa implementing?

Q6: Tell me about your view of digital technology in social enterprises?

Follow-up Q6.1 – How are you using digital technology as an enabler in your organisations?

Follow-up Q6.2 – What inspired your adoption of technology into your business model?

Follow-up Q6.3 – What has been the benefit of having a tech focused approach?

Follow-up Q6.4 – What are the adoption patterns from users?

**What I am listening out for:** *# How does the digital tech piece fit in | #Tech and its position for scale |*

**Research sub-questions or Key component of the research question:**

**[5]** How does technology impact scaling strategies?

Q7: If you had the chance to start a new social enterprise from ground up again, what considerations would you make in developing a scaling strategy? Clean Sheet – recipe for success

**What I am listening out for:**

*# How to develop a scaling strategy | #Key Recommendations | #What Works | #Preconditions | #Ecosystem Factors*

**Research sub-questions or Key component of the research question:**

**[4]** What strategic scaling factors are considered important by founders of social enterprises?

The above Interview guide was designed to have a set of questions that are open ended, yield rich describing data and stories about the phenomenon of building a scaling strategy (Merriam and Tisdell, 2015, p. 121)

## 3.3.4: Conducting Interviews

All interviews were done in a neutral setting with me starting with an introductory brief on the purpose of the interview, the use of a recording device, confidentiality, use of pseudonyms, consent form, personal motivation for this research thesis, what I hoped to learn and how I planned to share these learning and any logistics about what happens after (Taylor and Bogdan, 1984). The initial phase of the conversation also provided me and the participants with an opportunity to discuss any questions, thoughts or suggestions before jumping into the main questions in the interview guide, I found this initial upfront discussion to be a natural ice breaker instead of jumping cold into the first question.

The interview process then followed the interview guide as highlighted in the table above. Thematic and dynamic dimensions were considered while developing the questions. Having explained confidentiality, anonymity and consent upfront, I reserved the process for signing the consent form to the end of the Interview before closing. The first interview was used as a pilot interview to aid me in testing out the interview guide and rewording questions (Merriam and Tisdell, 2015, p. 117).

In this research thesis, all the participants are leaders in their respective organisation, meaning that they fit the classical definition of interviews with elites which Kvale (2008) and Merriam and Tisdell (2015) defines as persons who are leaders in a community, or hold powerful positions. Typical issues that arise in interviews with elites did not really factor so much in this research thesis due to my relative position as fellow social entrepreneur focused on scaling a social enterprise. My positionality neutralized typical issues of:

- a. Obtaining access to participants,
- b. Power asymmetry,
- c. Expertise in the interview topic,
- d. Respect for researcher,
- e. Used to giving prepared talks and
- f. Secure status which may lead to challenging statements (Harvey, 2010; Rice, 2010).

The interviews were set out to elicit a combination of factual and conceptual perspectives in order to understand and uncover the essential nature of the phenomenon of scaling social impact (Leedy, Ormrod and Johnson, 2019). Factual components helped me understand what scaling strategies are implemented by the participants, the conceptual uncovered other elements surrounding the strategy development and how they influence choices made. I approached the interview process as a sense making process where my role was to facilitate narrative production, suggesting narrative positions while the participant actively composes meaning to provide a reality construct (Leedy, Ormrod and Johnson, 2019).

## 3.3.5: Oral to Written - Transcription

The research design made provision for all the interviews to be audio recorded, this way I could focus on the topic and the dynamics of the interview instead of worrying about missing important points in my note taking. I used an Olympus Digital Voice Recorder (Model DM 670) and my smart phone as a secondary backup device. Instead of viewing transcription as a clerical task, Kvale (2008) highlights that the transcription is an interpretative process where the difference between oral and written speech text gives rise to a series of practical and principal issues. A transcript is a translation from oral discourse into written discourse.

In the case of the pilot interview, a video and audio recording were utilized together. The video was aimed to aid me in paying attention to interpersonal interaction, including body language of the participant and myself as the researcher to determine ways to improve my interview technique (Rapley, 2007). Since video takes long to analyses, is more expensive, time consuming and generally cumbersome, I chose to use video for pilot interview only. I then watched in and focused mostly on my interaction with the participant, making notes of what I need to do less off and what I need get better at. It was also my intention to develop detailed notes during the interview but found this difficult and considered my notetaking to disrupt the conversational nature of the interview.

Based on the recommendation of Merriam and Tisdell (Merriam and Tisdell, 2015), I transcribed the first (Pilot) interview in order to assess, evaluate and analyze the process, information gathered, framing of the questions and impact of the interview style. The benefits of a researcher transcribing their own interviews has been greatly supported by various authors (Merriam and Tisdell, 2015; Wilkes, Cummings and Haigh, 2015; Cibils, 2019; Pessoa et al., 2019). I decided to make the time commitment and transcribe all the 21 Interviews with the subtle hope of completing this research thesis with an additional skill of a faster typing speed. I choose to transcribe verbatim, transcribing word-for-word to reproduce the recorded verbal data from the interviews (Poland, 1995).

Considering realities of the time commitment required, I needed to find a faster process. I adopted a transcription method called “Parroting” where I would listen to the recording through a set of headphones and repeat the recording audio into a microphone linked with a speech-to-text software that picks up my voice and types out the words. I first tried Google Voice typing feature for dictation that comes inbuilt on Google Docs but found that it did not work so well for me at the time. I then purchased speech-to-text dictation software called Dragon Naturally Speaking Professional by Nuance. That worked out much better as it enabled me to train the software using my voice, resulting in higher dictation accuracy and speed. I had to spend some time afterwards formatted the text to finalize the transcription for the analysis phase. Appendix E and Appendix F shows two sample transcriptions from the 21 Participant Interviews.

## 3.4: Data Analysis

Analysis begins at the first interview, the first observation or the first document (Merriam and Tisdell, 2015). This process of data analysis is the classification and interpretation of linguistic material to make statements about the implicit and explicit dimensions and structure meaning-making in the material and what is represented in it (Flick, 2014). In this research thesis, the goal for data analysis was to make sense out of the lived experience of social enterprises scaling their social impact and this sense making involves consolidation, reducing, interpreting while moving back and forth between inductive and deductive reasoning (Merriam and Tisdell, 2015). The following sub-section explains the processes used to answer my research question(s). I first start off by explaining data management and my decision for a Computer Assisted Qualitative Data Analysis Software (CAQDAS), I then go into more detail on the coding methods used for the first cycle, second cycle coding and the process for developing the categories.

### 3.4.1: Data Management

Data management is an aspect of analysis that can be divided into three phrases:

1. Data Preparation: Typing notes, transcribing interviews, data entry, minor formatting, to create a clean record to work from;
2. Data Identification: Assigning codes to segments of your interviews, field work, documents or audio or video files; and
3. Data Manipulation: Searching, sorting, retrieving and rearranging (Merriam and Tisdell, 2015).

In this context, retrieve entails providing a means to collect similarly labelled passages. Merriam and Tisdell (2015) recommend line numbering the left-hand side of the page, double spacing between the two conversants, single spacing for the content, italics for questions, enough coding spacing on the right and identifying information for each transcript if using a word processor.

In preparing for the analysis phase, I chose to use a Computer Assisted Qualitative Data Analysis Software (CAQDAS) to aid in the analysis process. Computers have a capacity to organize massive amounts of data, facilitate analysis and assist communication among members (Gibbs, 2014; Merriam and Tisdell, 2015). I chose to use NVivo, a qualitative data analysis computer software package produced by QSR International. The decision to leverage NVivo was motivated by the following factors:

1. My university makes the NVivo available on a free license for students and staff,
2. My familiarity, past trainings, potential for retraining at no cost using online resources for learning how to navigate software.
3. Software makes assigning codes to passages of data and then retrieve all data assigned under a particular code easy (Merriam and Tisdell, 2015),
4. It is sophisticated enough to create and display linkages together with logical relations (Kelle, 2004),

5. Provides a good filing system for my data and analysis reducing clerical work (Seale, 2000),
6. Encourages a close examination of the data leading to a rigorous study (Seale, 2000), and
7. Has concept mapping features that aid in visualizing the relationships among codes and themes through visual model (Creswell, 2012).

In line with the data preparation step mentioned earlier. Appendix E and Appendix F provide the full transcripts for two interviews for different founders. The interviews are formatted to:

1. Follow the research guide, highlighting how each interview question maps with each 5 main sections.
2. Group answers to correspond to each sub-research question.

### 3.4.2: Coding Qualitative Research

In the context of this qualitative data analysis, a code is a researcher-generated construct that symbolizes or translates data (Vogt et al., 2014). This then attributes interpreted meaning to each individual datum for later pattern detection, categorization, assertion or propositions development, theory building and other analytical process (Saldaña, 2015).

Saldaña (2015) defines a code as a word or short phrase that symbolically assigns a summative, salient, essence-capturing and/or evocative attributes for a portion of language-based or visual data. In this research thesis, the data consists of interview transcripts from 21 social enterprises as the main data collection for the cases. The coding process forms a critical link between data collection phase and the explanation of meaning (Charmaz and Emerson, 2001). Coding is not a precise science; it is primarily an interpretive act aimed to summarize, distil, or condense data, not simply reduce them (Saldaña, 2015, p. 5).

When thinking about recognising patterns in coding, Saldaña (2015) highlights that a pattern is a repetitive, regular or consistent occurrence of action/data that appear more than twice. Stenner (2014) indicates that a pattern suggests a multiplicity of elements gathered into the unity of a particular arrangement. This research thesis will explore the formation of patterns to help provide trustworthy evidence for the core findings, but it will also explore inconsistencies, paradoxes and ambiguities that reflect key aspects of the social reality at hand in accordance with Alvesson and Karreman (2011).

Brinkman and Kvale (2015) advocate for researchers to acknowledge that they bring certain filters that that influence the type of questions asked and how the respondents might answer. Noting that coding has a similar degree of subjectivity i.e. “All coding is a judgement call” as highlighted by Sipe and Ghiso (2004). It is for this reason that I ensure that all the evidence developed follows a structured approach that allows any other peer researchers follow the source data and the logic development.

Accepting that coding and analysis are not synonymous, though coding is an aspect of analysis (Basil, 2003), in this research thesis, I initially attempted to code data in the collection phase, that proved more difficult than I had anticipated, and then settled for only coding the first interview to develop the initial codebook then carried on with interviews only. I then started the analytical phase after transcribing the 21st interview to ensure rigor in accordance with Saldaña's (2015) recommendation. This process sought to establish linkages that turns data into idea and ideas into all data related to the overall concepts (Richards and Morse, 2012). All the codes were then be codified systematically, arranged in order to consolidate meaning and develop explanations (Grbich, 2012).

Acknowledging that qualitative inquiry requires meticulous attention to language, images and deep reflection on the emergent pattern and meaning of human experiences, this research thesis embraced Saldaña's (2015) recommendation for coding to occur in two or more cycles.

The coding style chosen for the research closely resembles splitting, which means that codes are assigned to a passage instead of lumping to encourage scrutiny of social action represented in the data (Saldaña, 2015). To this effect Smith (2015) advises that detailed line-by-line coding promotes a more trustworthy analysis that reduces the likelihood of inputting motives, fears, unresolved personal issues by the researcher to the respondents and the data.

Understanding that selecting the right coding method is critical for this research study, Saldaña (2015) advises that researchers need to view the qualitative analytic process as a cyclical rather than linear, the second piece of advice is to select more than one coding method and at least two different analytical approaches to enhance accountability and breadth of findings (Leech and Onwuegbuzie, 2005).

Since this research took more of an epistemological questioning, Saldaña (2015) highlights that these explorations of participants action/process and perceptions can often be matched to Descriptive, Process, Initial, Versus, Evaluation and Dramaturgical, Domain, Taxonomical, Causation and/or Pattern Coding, plus Theming the Data. For this research thesis I used the following combination 6 first cycle coding methods from Saldaña's (2015) 26 first cycle coding/theming methods:

**Provisional Coding:** Establish predetermined codes prior to field work. The codes can be developed from anticipated categories. The provisional list is generated from such preparatory investigative material such as literature review of the study, study concept framework, research questions and previous findings, pilot study fieldwork, researchers previous knowledge and experience and researcher-formulated hypothesis or hunches.

**Concept Coding:** Assign broader words to capture better the suggested meaning beyond the tangible and apparent. A concept is a word or a short phrase that symbolically represents a suggested meaning broader than a single item or action. A concept suggests an idea rather than observable behavior.

- Evaluation Coding:** Assign judgement about merits, worth or significance of a scaling strategy to a business development plan. This can be a systematic collection of information about activities, characteristics, and outcomes of a decision or program.
- Causation Coding:** Exploring reasons or causal explanations. Locate, extract, and infer causal beliefs from qualitative data. It attempts to label mental models the participants use to uncover what people believe. It is the individuals, not the variables which do the acting and the causing.
- Simultaneous Coding:** Applying two or more codes to the same passage which may be appropriate when content of the data can suggest multiple meanings.
- Theming the Data:** Labeling and analysing portions of data with an extended thematic statement rather than a shorter code. The theme brings meaning and identity to a recurrent [pattern] experience and its variant manifestations. A theme captures and unifies the nature or basis of the experience in a meaningful whole. The them becomes an extended phrase or sentence that identifies what the units of data is about and/or what it means.

### 3.4.3: Second Cycle Coding

After the first cycle of coding, theming of data naturally followed. Second cycle coding methods are an advance approach of rep-ordering, reorganizing and reanalysing data coded through the first cycle methods (Miles, Huberman and Saldana, 2014). In this step, I had to cross out synonyms, remove redundant codes and reorganize the full code set. I then focused my efforts on grouping the different codes to start developing a sense category, conceptual and theoretical organisation from the array of first order codes.

Coming up with the right categories is mostly an inductive process, It is also systematic and informed by the purpose of this research study, the researcher orientation, knowledge and meaning provided by the participants. The category naming emerged from my understanding, the literature and participants (Gray, 2013).

For the second cycle coding method I initially selected pattern coding, this proved more difficult that I had initially anticipated and did not seem to result in insights that I can use to develop the cases. I then moved from analysis and prepared for case composition.

### 3.4.4: Analysis Beyond Coding

In this research study, grouping of codes that seem to go together makes up a theme. Themes are developed from interpretation, reflection and meaning. When moving to the second set of data. Sorting of themes turn into conceptual elements that span or cover many of the

participants scaling strategies, this is what I will refer to as categories. Themes represents an incident of a category.

Name	Files	References	Created on	Created by	Modified on	Modified by
001 Founder(s) Level	9	497	2020/04/04 13:42	NV	2020/04/04 13:58	NV
002 Social Innovation Level	10	846	2020/04/04 13:46	NV	2020/04/04 13:58	NV
003 Organisation Level	10	2342	2020/04/04 13:47	NV	2020/04/04 13:59	NV
004 Environmental Level	10	1039	2020/04/04 13:49	NV	2020/04/04 13:59	NV
005 Tech Scaling Factors	9	365	2020/01/01 16:18	NV	2020/04/05 14:51	NV
010 Quote For Write Up	10	161	2020/05/30 13:22	NV	2021/08/18 13:45	NV

Figure 3—3: Categories Developed from Codes - Main Stem in NVIVO Software

Level 1 of the final code tree shows the main categories that I grouped all my themes and codes into. This is consistent with the five questions that I had hoped to answer. Note that the last category just in the image above contains quotes that had a profound impact on me personally and I had the intention to place them across the thesis write up if appropriate.

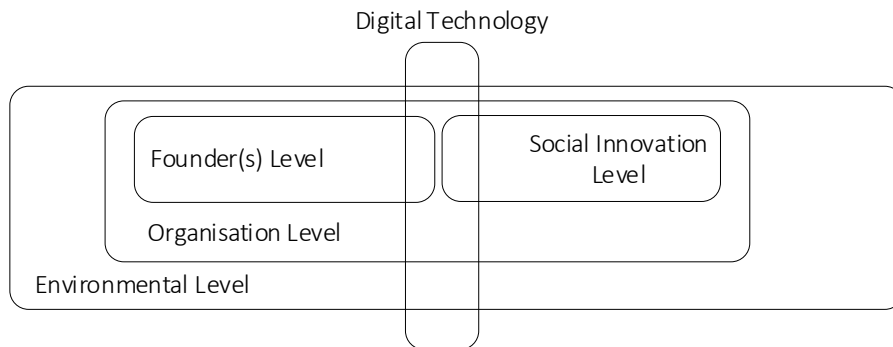


Figure 3—4: The Relationship between the five categories for codes grouping.

The codes and themes that I developed throughout the coding process got grouped into founder(s) level, the social innovation level and some of the codes into the organisational level, and the remainder into the environmental level. I chose this approach in building code tree grouping based on the relationships that exist between these levels. The founder or founding team comes up with a social innovation that solves a social issue with the community. Then a social enterprise is created as an organisation structure responsible for scaling this social innovation. This social enterprise operates within the South African context which is out environment. I then looked at codes that specifically spoke to the digital technology layer which ended up cutting across all the levels.

## 3.5: Case Development & Case Reporting

Reporting a case study can be a difficult when convert a complex phenomenon into a format that is readily understood by the reader (Baxter and Jack, 2008). My objective was to describe the scaling strategies in such a comprehensive manner as to enable the reader to feel as if they had been an active participant in the research and can determine whether or not the study findings could be applied to their own situation (Baxter and Jack, 2008).

In developing the case description, I considered multiple approaches and ended up choosing to use concept mapping as a way to distill all the key points from the participants into a structure that condenses and summarizes the key points. This approach helped me to build a clearer narrative by pulling together material associated with each code. For the building the narrative that ties together the relationships, I chose to also use codeweaving.

Codeweaving refers to the actual integration of key code words and phrase in a narrative form to see how the puzzle pieces fits together (Saldaña, 2015). The technique at first creates a forced and seemingly artificial assertion which is good for determining heuristics to explore possible and plausible interactions and interplay of the major codes (Saldaña, 2015). I applied codeweaving to the primary codes, categories, themes, and concepts of the analysis into a few sentences to build paragraphs for extended descriptive narrative of the phenomenon in greater detail.

Accepting the difficulty and the notion that there is no one correct way to report the case study (Baxter and Jack, 2008; Yin, 2011, 2015; Miles, Huberman and Saldana, 2014; Saldaña, 2015). I took guidance from The Five Sub-Questions formulated in section 3.2.1: to guide the narrative development with all the themes grouped under each Sub-Questions. This approach was inspired by the approach of using Propositions in case design.

The final writeup for the case had a heavier descriptive proportion due to the nature of case studies in order to convey a holistic understanding of the case. In the multiple case study design, I planned to do two layers of analysis, one within-case followed by a cross-cases analysis in the discussion chapter using the Top 10 Approach (Yin, 2016) where the summary is developed by using the Top 10 themes that has the most data which is relevant to the research question.

## 3.6: Study Limitations

This research only focused on South African social entrepreneurs willing to participate. I focused on ensuring a variety of sectors represented (health, education, creative arts, waste management). Within South Africa, I only focused on entrepreneurs who live in Cape Town, Johannesburg, Durban, Soweto, Midrand, Centurion, and Pretoria due to limited travel budget. The founder had to self-identified as a social entrepreneur. I also did a desktop background search to see if they had been identified as social entrepreneurs by other external stakeholders. I paid attention to the varying definitions of social entrepreneurship, but ultimately relied on self-identification to be considered as a participants.

To reach social entrepreneurs out of my circle, I develop a comprehensive list of social entrepreneurs scaling social impact derived from corporates, funders, foundations, entrepreneurial programs that fund, support or award social entrepreneurs. This limited my sample to people who had participated in awards, program or were recommended by another participant.

I initially tried creating exclusionary criterion where I would only engage social businesses who had reached a minimum impact footprint of 200 000 people in the last 3 years. This approach proved difficult as some of the entrepreneurs with really exciting profile had not yet reached this limit but were actively scaling their social impact. It also proved difficult to build pre-qualifying criteria without knowing the business intimately.

Another limitation considered is that I am a practitioner, coming into a space, but this time as a researcher. I had to consider some of my own assumption and focus on bringing an open mind and an open heart. I trained myself to listen with curiosity and openness. The pilot interview helped me practice the process of asking the question instead of wanting to discuss each point with the participants actively during the interview. In some cases, the participant would also want to know my personal opinion on a question I had asked in the interview, in these cases, I chose to be an active participant instead of just being distant observer but would eliminate my contribution out of the transcript.

Another limitation to this research is that all the data was collected before Covid 19, meaning that the findings do not factor in any potential impact of the COVID-19/Coronavirus Pandemic. It is worth noting that the pandemic greatly slowed down my analysis and submission process, partly accounting for gap between data collection and thesis submission.

The findings of this thesis are representative and can't be generalized for the full country given the case study approach and sample selection of 21 social enterprises. It is my hope to encourage others to take on the future research work recommended in the later chapter in section 6.6 that can be more generalisable.

## 3.7: Research Ethics

After submission of the research proposal, I applied for and obtained ethics clearance for the interview phase which was approved by the Commerce Faculty Ethics in Research Committee. This research did not study vulnerable populations such as children, the elderly, hospital patients, jail inmates or other vulnerable groups.

Since the topic of the study is Scaling Strategies of leading social enterprises operating in competitive spaces and some of the information shared cannot be on the public domain. I offered the founders (and their organisation by extension) anonymity as they participate. Furthermore, I offered an assurance that their identities will not be disclosed, nor will their names or the names of the organisation be published in the research report. Despite the case study approach, this offer for anonymity enabled the founders to share openly the intimate details relating to scaling their impact and the associated challenges.

I had initially built a research approach that would leverage Observations, Documentations and Videos. I realised that using some of the videos, documents and articles in the public domain and then referencing them in the research report would compromise the anonymity of the participants. I have included reference news articles to illustrate the challenge of maintaining anonymity in Appendix D. It is for this reason that I do not provide a comprehensive profile of the social enterprises but rather a high-level indication of sectors and impact area in the case studies.

## 3.8: Research Approach and Methods Summary

In this section, I summarise the research approach and methods chapter. The chapter was structured to cover seven components to aid in guiding the detailed study design of the thesis research. At the beginning of the chapter, I break their main research problem or central question into sub-problems or sub-questions to help focus the thesis. I then position the topic within applied research field and support my choice for selecting qualitative design.

I then moved my attention to reviewing 6 approaches of qualitative inquiry, motivate my selection for qualitative case study design approach for its ability to generate a rich description and to inform professional practice. I also unpacked why I selected to do a combination of an embedded multi-case study research design that would involve multiple social entrepreneurs.

Additionally, I explored data collection design and provided a rationalisation for choosing to combine three sampling types. The chapter also explains the selection criteria used, how participants were sourced and a rational for the number of participants to make up the sample size. I also build a case for a data collection approach that mainly consists of interviews, provide a detailed description of the interview guide, and set the scene for how the interviews were conducted, transcribed, coded and analysed. The chapter closes with case description, study limitations and research ethics.

## Chapter 4: Descriptive Case Study 1 - Social Enterprises Scaling Impact through Digital Technology

In Chapter 4, I present findings in the form of an embedded case study (Case 1) to provide a detailed description on scaling strategies for social enterprises leveraging a digital technology as a means of delivering social impact.

### 4.1: The Social Enterprises

In this subsection, I provide a summarized view of the 13 social enterprises that formed part of Case 1. The provided description is written to avoid compromising confidentiality afforded to the participants (extended to the organisation) while still being detailed enough to provide the reader with sufficient detail.

Impact Area	Health - Medical Devices + Deaf Community	SE	SE_Tech_001
Social Innovation		Impact Model/ Social Benefit Model	
Lifesaving wrist-wearable devices for the deaf and hard of hearing are designed specifically for hearing-impaired people in low-income communities.		<ul style="list-style-type: none"> <li>• A wristband that detects and translates important sounds, like an alarm for example, into specific colour-coded light and vibration helps connect the deaf community with their surroundings easier.</li> <li>• This means hearing-impaired communities could enjoy a better quality of life as they are more integrated into society.</li> </ul>	

Impact Area	Education – Access to quality Education	SE	SE_Tech_002
Social Innovation		Impact Model/ Social Benefit Model	
<p>An educational digital technology platform that provides access to digital content through mobile technology</p>		<ul style="list-style-type: none"> <li>• Partner with local content developers and publishers.</li> <li>• Integrate the best teaching practices on video, audio and e-books into the school system through a wireless digital library.</li> <li>• Sets up digital libraries with pre-loaded content in places such as township and rural schools, where connectivity is limited or non-existent.</li> <li>• Set up local WiFi hotspots so that local students can access and download the material through mobile devices without having to pay for the internet.</li> <li>• Incorporate open-source textbooks and direct negotiations with publishers to provide high school and post-high school students access to digital content, with a focus on STEM subjects, entrepreneurship, digital skills, and financial literacy.</li> <li>• Platform administers digital tests to identify, capture and monitor performance data and profile each student for support, career guidance, and university and bursary placement while giving clients and schools real-time feedback and intervention capabilities.</li> </ul>	

Impact Area	Youth Employment – Access to opportunities	SE	SE_Tech_003
Social Innovation		Impact Model/ Social Benefit Model	
<p>Online web platform where jobseekers can create an online profile leveraging video, and employers would recruit from different pools of talent. The platform has an e-learning section for upskilling the job seekers</p>		<ul style="list-style-type: none"> <li>• Provide access to quality candidates.</li> <li>• Helps first-time job seekers and increase chances of success by solving the basics of creating CVs</li> <li>• Develop a culture of Jobseekers applying every single day.</li> <li>• Increase access for socially, geographically and financially excluded communities.</li> <li>• Cultivate skills of articulation for jobseekers through practice interviews.</li> </ul>	

	<ul style="list-style-type: none"> <li>• Provide an ecosystem that supports the job seeker from the first step all the way towards employment.</li> </ul>
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Impact Area	Health - Health Systems + Specialist Care	SE	SE_Tech_004
Social Innovation		Impact Model/ Social Benefit Model	
<p>An app that makes it easy to refer patients to specialists. The app puts primary healthcare workers directly in touch with on-call specialists, making the referral process much quicker than traditional means.</p>		<ul style="list-style-type: none"> <li>• Give health workers – particularly those in remote rural areas – a tool that helps to get patients quick and efficient specialist care.</li> <li>• Specialists: Receive good quality referrals, including photos and clinical details</li> <li>• Health workers: Get advice from the on-call specialist at your referral hospital</li> <li>• Feedback helps primary health workers to upskill in their speciality.</li> <li>• Access to the specialist team’s referral history and all referral data.</li> <li>• Reduce the number of patients referred to specialists unnecessarily.</li> </ul>	

Impact Area	Disaster Risk Reduction	SE	SE_Tech_005
Social Innovation		Impact Model/ Social Benefit Model	
<p>Networked heat-detector designed specifically for a slum environment to form an early-warning system for fires</p>		<ul style="list-style-type: none"> <li>• Address the challenge of fires in urban informal settlements &amp; townships in South Africa and across the globe.</li> <li>• Coupled together with low-cost inclusive insurance products to provide safety and financial security to our clients.</li> <li>• Distributes insurance products to financially excluded households and businesses in townships and informal settlements</li> </ul>	

Impact Area	Pre-primary/Pre-school/ECD Education	SE	SE_Tech_006
Social Innovation		Impact Model/ Social Benefit Model	
<p>A buying digital platform that amplifies the power of communities through collective buying for low-income households with a special benefit for crèches</p>		<ul style="list-style-type: none"> <li>• Groups and communities – whether neighbours, members of a stokvel or a church congregation – can group together as a buying group, allowing</li> </ul>	

	<p>them to buy directly from suppliers, saving money (between 20% and 40% less)</p> <ul style="list-style-type: none"> <li>• Addresses the need for a company to deliver monthly groceries into the township, with a focus on crèches</li> <li>• Solve for transportation of goods once bought, especially the majority who are making use of public transport such as buses and taxis.</li> <li>• The crèches now earn a commission for every person they refer.</li> </ul>
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Impact Area	Education – Access to career guidance	SE	SE_Tech_007
Social Innovation		Impact Model/ Social Benefit Model	
<p>A career guidance digital technology platform that assists learners in Africa with career planning to unlock their potential.</p>		<ul style="list-style-type: none"> <li>• Designed to map career data to learners, teachers and mentors, assisting in making well-informed good career decisions to improve long-term education and career outcomes.</li> <li>• Provide good quality career guidance to every learner in Africa, enabling them to easily navigate through the complexity of understanding career pathways from education to employment.</li> </ul>	

Impact Area	Education - STEM Extracurricular and out of School Activities	SE	SE_Tech_008
Social Innovation		Impact Model/ Social Benefit Model	
<p>Programs through a STEM Community Engagement Model that promotes science, technology, engineering &amp; mathematics education and careers in Southern Africa</p>		<ul style="list-style-type: none"> <li>• Reduce unemployment by increasing the familiarity and interest in a wide variety of STEM careers in communities and schools, particularly in the historically disadvantaged communities of Southern Africa.</li> <li>• Redressing negative perceptions regarding STEM in disadvantaged communities.</li> <li>• Supporting grass root organisations in communities that are promoting STEM and supporting STEM education.</li> </ul>	

	<ul style="list-style-type: none"> <li>Increasing the visibility and forecasting of STEM education and career opportunities.</li> </ul>
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Impact Area	Education – STEM extracurricular in basic + secondary education	SE	SE_Tech_009
Social Innovation		Impact Model/ Social Benefit Model	
Addressing the lack of access to quality education through affordable robotics toys in low-income communities.		<ul style="list-style-type: none"> <li>Develop and manufacture reusable user configurable modular robotics kit which enables learners to design, assemble and program a number of different robotics and mechatronic systems for various applications.</li> <li>Marry hardware and software to achieve the goal of educating grade 4-9 learners (intermediate phase of the CAPS curriculum) about software and mechatronics (i.e. mechanical and electronics) concepts.</li> </ul>	

Impact Area	Enabling Environment: Entrepreneurship	SE	SE_Tech_010
Social Innovation		Impact Model/ Social Benefit Model	
Create environments and systems where people are impacted, empowered and transformed through Innovation, Technology, Training and Economic Opportunities		<ul style="list-style-type: none"> <li>Provide wide access to education and training programmes</li> <li>Research, Ideation, Design, Prototyping, Sandboxing, Innovation and Technology</li> <li>Providing SME Support, Training and mentorship accelerating high-impact, innovative and scalable business</li> <li>create systems and environments where the lives of many can be impacted, where individuals may find empowerment and transformation can occur</li> </ul>	

Impact Area	Education - Workforce Development + Code Training	SE	SE_Tech_011
Social Innovation		Impact Model/ Social Benefit Model	
An online learning management system through a digital portal that allows students to direct their own learning and move at the pace they need. The platform can be customised.		<ul style="list-style-type: none"> <li>Providing education that empowers people to imagine and create technology.</li> <li>Help young people to break through educational barriers and become</li> </ul>	

	<p>innovators and job creators by participating in the global tech industry.</p> <ul style="list-style-type: none"> <li>• Increase gender, racial and socio-economic diversity in the tech industry.</li> <li>• Inclusive learning spaces for underrepresented groups in the tech industry</li> <li>• Run a community program for young female tech leaders</li> </ul>
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Impact Area	Waste Management	SE	SE_Tech_012
Social Innovation		Impact Model/ Social Benefit Model	
<p>A free recycling service that Incentivises households with a virtual currency that can be used to buy groceries and airtime.</p>		<ul style="list-style-type: none"> <li>• Partner with waste pickers to collect recyclables from households and provide them with uniforms, transport, and mobile devices.</li> <li>• Through recycling, provide an avenue for recyclers to contribute toward positive social change.</li> <li>• Shape a future where your environmental impact can be the catalyst for influencing industry behaviour, creating opportunities for communities to access recycling services and support for waste pickers – who are at the heart of driving recycling up in the country.</li> </ul>	

Impact Area	Health - Medical Devices + Hearing	SE	SE_Tech_013
Social Innovation		Impact Model/ Social Benefit Model	
<p>A hearing screening audiometer on a smartphone, a low-cost mHealth solution for hearing problems, provides clinically valid tests, operated by untrained persons with cloud-based data management and referral systems linking patients to services</p>		<ul style="list-style-type: none"> <li>• Affordable access to hearing care using smart digital health solutions that anyone can use, anywhere</li> <li>• Increase access to hearing healthcare, more people with earlier access to detection and intervention</li> <li>• Simple, user-friendly screening, Laypersons with minimal training can operate.</li> <li>• Affordable &amp; time-efficient, cut costs by &gt;50% and test more in less time</li> </ul>	

## 4.2: Key Organisational Factors

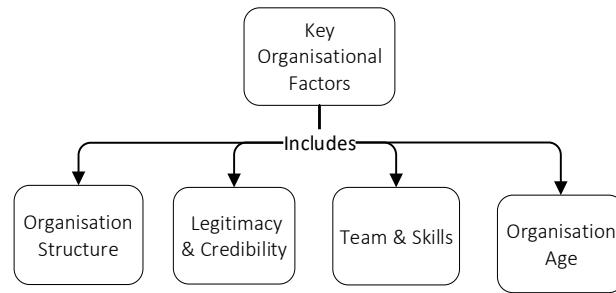


Figure 4—1 Organisation factors sub-themes

Based on the themes raised by participants in the interviews, the findings on the organisational factors of the social enterprises will cover the organisation structure, legitimacy and credibility factors, team and skills and organisation age as presented Figure 4—1 above.

### 4.2.1: Organisation Structure

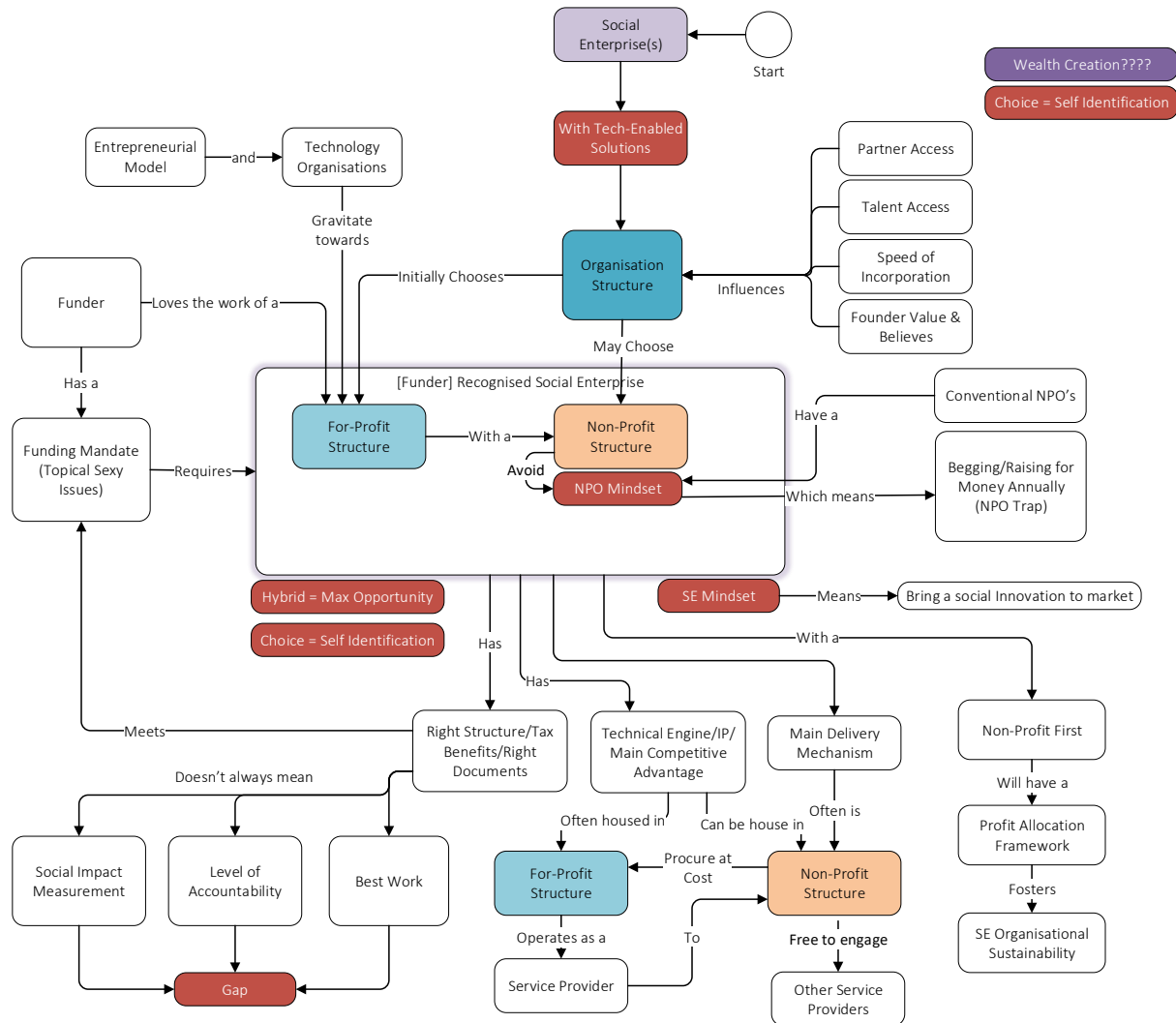


Figure 4—2: Organisational Structures – Digital Tech-enabled SE's

Founders with a for-profit company structure identify the need to create the non-profit company structure (NPC) as a secondary entity to get recognised as a social enterprise. This is heavily motivated by funders who love the work that the initial for-profit structure is doing but have an internal funding mandate to fund only NPCs that can issue section 18As required for a tax benefit.

The founders in the Case 1 group raise the point that funding does not always necessarily go to the organisations that are doing the best work but rather those who have the right structure and the associated documentation required for corporate tax breaks. This speaks to the fact the social impact funding landscape does not have the right level of accountability and impact measurement incentives.

These founders make a distinction between an NPO mindset and a Social Enterprise mindset. These founders perceive the conventional NGO models as challenging due to fund-raising activities. They would rather orientate towards operating as private technology companies bringing to market a social innovation aimed at a social challenge. They believe for-profit structures enable them to thrive, and they identify with this structuring much better. Additionally, the funding landscape is also changing, and this is starting to have an impact on traditional NGOs.

In the cases where the founder's journey starts as a community project, the natural progression is to incorporate into a business structure to enable funders to channel funds into an entity. Founders who are rushed into incorporation do not always have the time to consider the right structure upfront.

Founders who identify with a technology approach gravitate towards a private for-profit company structure over a non-profit company structure. All founders seem to have a sense that each structure has its advantages and disadvantages. The majority of businesses take the view of maximising their opportunity by adopting a hybrid structure (both models of incorporation).

In businesses where the private for-profit company structure is set up after initially incorporating an NPC, a relationship between the two entities is created to enable the for-profit to allocate a portion of its profits to the NPC's operations to ensure that the entire social enterprise is financially sustainable. Since social enterprises can incorporate using either a non-profit or a for-profit structure or both, then self-identification as a social enterprise becomes the main classification framework.

Technology-orientated social entrepreneurs also consider the type of talent that they need to attract when choosing an organisational structure. These social businesses have to compete for expensive talent that is not always attracted to the NPO space or grassroots organisations. They embed scale right at the initial strategy and optimise to avoid the perceived limitations that non-profit organisation structures. Additionally, the founder's personal values and beliefs influence which structure is selected. They may consider the non-profit as a very clean



Irrespective of how great the digital technology is, building trust, changing perceptions while engaging critical stakeholders is essential in building a positive rapport externally. Internally, the founders also recognise the need to build a strong & learning culture that will support their scale.

Building credibility is also deeply embedded in the type and quality of brands with which the social venture associates. Often, these are more prominent brands that are well known (e.g., Red Bull, Branson Center, Google, Facebook, Microsoft, NECT and Media Houses). By building a strong association with these brands and digitally locking themselves with the brands. The brands then reciprocate by advocating for the social enterprise and seed their credibility and legitimacy.

Credibility can also be linked with the network that the founders actively develop in their journey. By authentically sharing the journey with people, inviting comments, and putting themselves out there, these social entrepreneurs find a way to build rapport and develop trusting networks, which, in turn, leverages their social capital to help the social enterprise by championing their work. Social entrepreneurs take a long-term view on building relationships and are willing to forgo immediate transactional gratification.

The other mechanism these founders use to develop legitimacy and credibility is by setting up an advisory board of credible people to seed the credibility of the organisation. These social entrepreneurs seek out people who have been in the industry for a lot longer and are doing things in related spaces.

They avoid being territorial and highly protective about their work, but rather optimise for sharing their ideas and continuously aim to improve their concepts while attracting others to join them in their journey.

Some of the entrepreneurs recognise that their competitors might have fancy and more expensive tech, but ultimately, they compete on being better at building what they describe as the human element, better at focusing on people while using technology as a tool to facilitate communication and engagement. In some cases, these social businesses may choose to prioritise building trust into their offering by using front-line workers who can actively build relationships with the community, even if that strategy does not seem scalable and is not purely digital tech-driven.

The incorporation structure and organisational identity can also be tied to legitimacy and credibility. Some of the social businesses actively avoid being classified as NGOs because they do not subscribe to only being driven by passion and doing good. They would rather also want to be associated with the corporate culture of having a good work ethic, using businesses principles while operating a social enterprise.

The entrepreneurs also surface the point that locally-led social enterprises are less likely to attract substantial funding as compared to foreign-led enterprises with imported solutions. They point to the fact that funders do not have high confidence even if the local social business has demonstrated evidence. The general hurdle rate of funder confidence is tied to the

credibility of the local social businesses. Most of the entrepreneurs are conscious about the amount of work and the expense it takes to build credibility.

Depending on the sector, the mechanism to build legitimacy and credibility may be different. Social businesses operating sectors that require external validation may partner with other institutions for independent publications.

### 4.2.3: Team & Skills

This section is a summary of the skills that Social Enterprises have found to be important to the process of building and scaling their social innovation. It's a reflection of how the teams are composed.

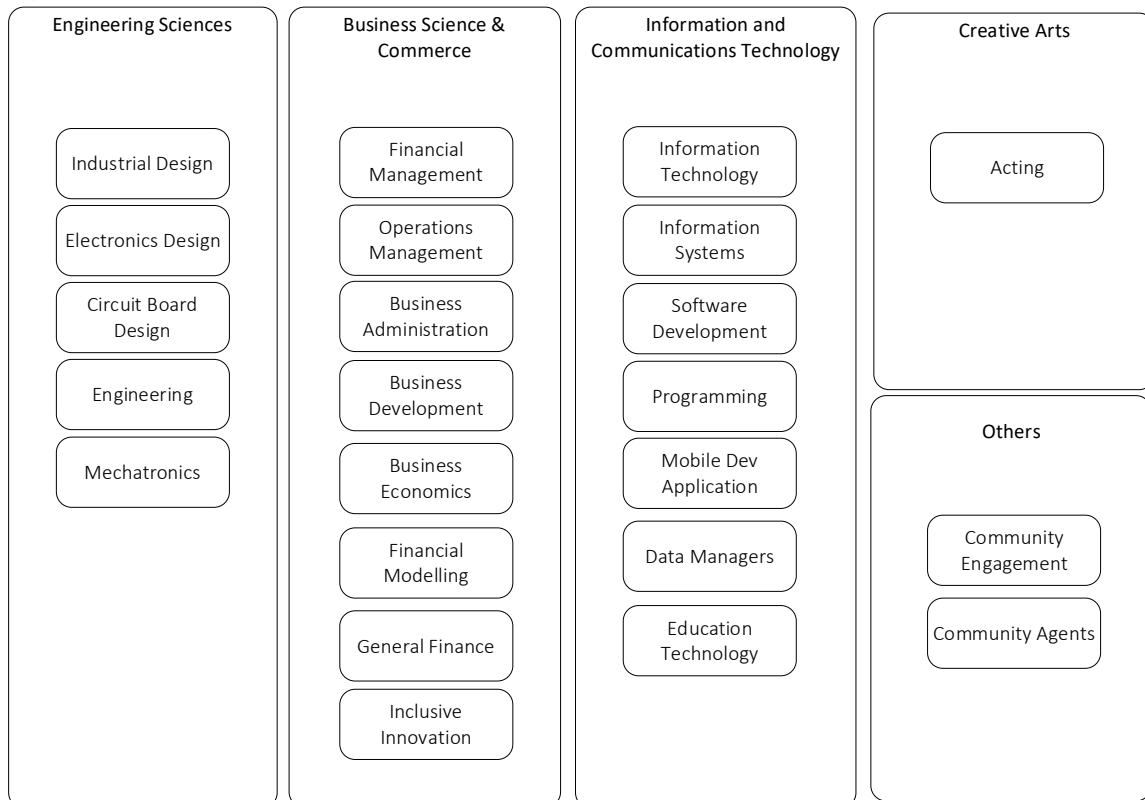


Figure 4—4: Specialised Domain Skills - Digital Tech-enabled SE's

In addition to the critical skills mentioned above, the founders need to find a balance between the technical skills and attracting people who still hold the mission close to their hearts. One founder advocates for seeking entrepreneurial skills in the core team. In cases where the organisation is not able to pay for the skills needed, short-term skills donation or skills buttering is an option for founders who are willing to help other businesses with their core skills.

In the initial stages where money is tight, the founders tend to recruit lower-level skills to deal with most of the organisation's administrative activities. This strategy still results in a management structure that places strain on the founder. Non-technical founders require a core technical team that is likely to include developers. Mastering the hiring process for skills needed at each growth phase is a critical founder responsibility.

One of the social enterprises chose to start as a committed group of friends with diverse skill sets to spread the founder load. These social businesses must also find a balance between technical execution and deep community engagement. The technical founders also emphasise the need to employ people who can take over the technical portion as the organisation scales so that the founding team can focus on critical strategic areas. This also tends to give an organisation an opportunity to create a product that goes beyond the technical founder’s lens.

Having initial team hires that live in the communities that the social enterprise serves contributes significantly to the Organisation's communication and learning cycle and informs which versions of scaling models would be best. One of the Organisations classified some team members/skills as core and non-core. This is useful when determining who needs to be involved in the social venture on a full-time basis and who can become ancillary. It also works out as an advantage to have the ancillary team that can come on for a short time on a concentrated effort in one specific business need and disband thereafter. Most entrepreneurs recognise building a strong, solid base team as a massive challenge.

#### 4.2.4: Organisational Age

As of 2020, the average age for digital tech-enabled social enterprises was 5.6 years [sub-group]. The summary is considered at the time of the interviews.

*Table 4—1: Organisational age of social enterprises leveraging digital technology [2020]*

Social Enterprise	How Old?	Age	Social Enterprise	How Old?	Age
SE_Tech_001	2013 to Present	7	SE_Tech_008	2013 to Present	7
SE_Tech_002	2014 to Present	6	SE_Tech_009	2015 to Present	5
SE_Tech_003	2016 to Present	4	SE_Tech_010	2009 to Present	11
SE_Tech_004	2013 to Present	7	SE_Tech_011	2014 to Present	6
SE_Tech_005	2014 to Present	6	SE_Tech_012	2016 to Present	4
SE_Tech_006	2015 to Present	5	SE_Tech_013	2015 to Present	5
SE_Tech_007	2014 to Present	6			

### 4.3: Social Impact Scaling Strategy Models

In this section, we explore which scaling models’ social enterprises choose and their views on those models. I cover all the 5 scaling approaches based on data from the interviews

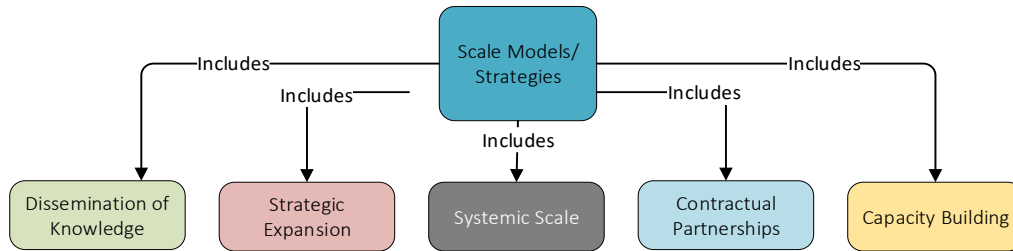


Figure 4—5: Social Impact Scaling Strategy Models

#### 4.3.1: Dissemination of Knowledge

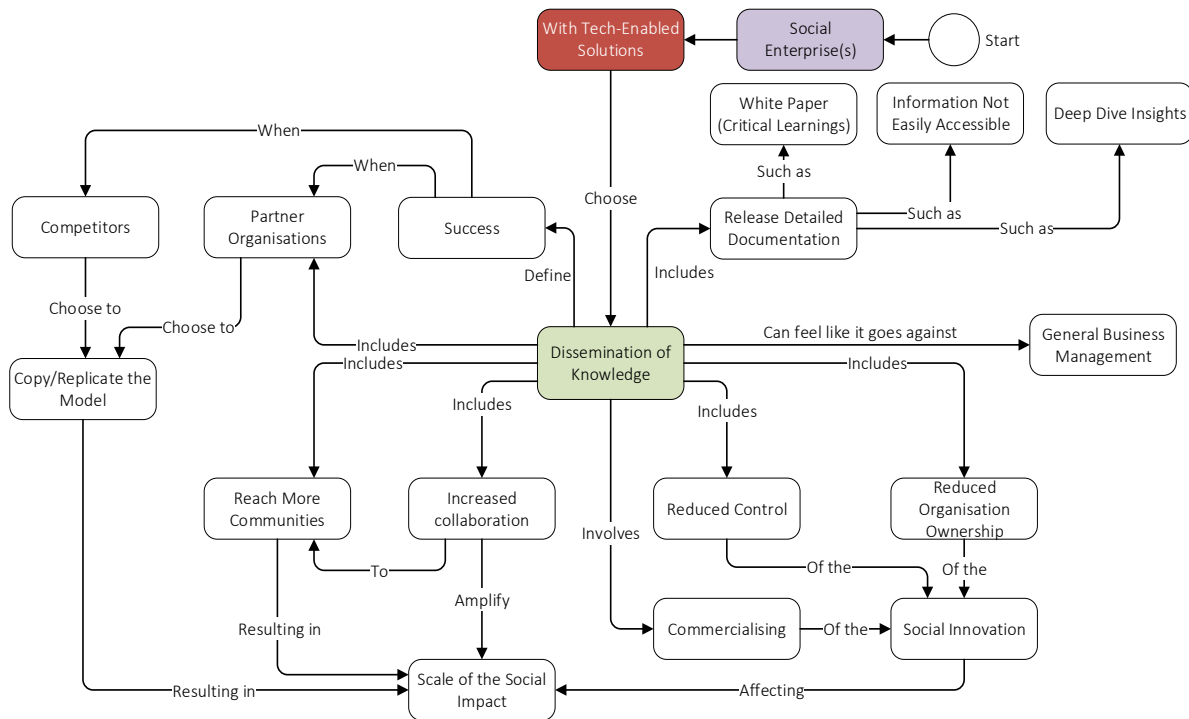


Figure 4—6: Dissemination of Knowledge - Digital Tech-enabled SE's

Only 1 of the 13 tech founders selected dissemination a scaling model. The motivation for exploring dissemination stems from the belief that an organisation does not have to control everything. This founder challenges the general inherited assumptions that one organisation needs to own and control social innovation as inherited from general business management sciences. This participant advocates for social impact-driven businesses to commercialise without needing to control everything. Dialling down the need for control and outright ownership enables social businesses to collaborate (e.g., co-lease premises) and support each other to amplify their social impact.

This social enterprise also defines its success when other organisations copy the model and operate it in other communities that they do not reach. It can be through direct competitors

borrowing/copying what works from their model. The organisation plans to make dissemination more deliberate by releasing a white paper highlighting learnings of what works and what does not while solving their social challenge. This is meant to be information that is not easily accessible, providing a deep dive and covering all the insights that can help other organisations wanting to address a similar issue.

With the exception of one participant with a strong personal belief that businesses do not need to control everything to be successful, dissemination is not a common strategy for social entrepreneurs leveraging a digital technology approach. Additionally, when dissemination is considered, It is in combination with another scaling strategy.

4.3.2: Strategic Expansion

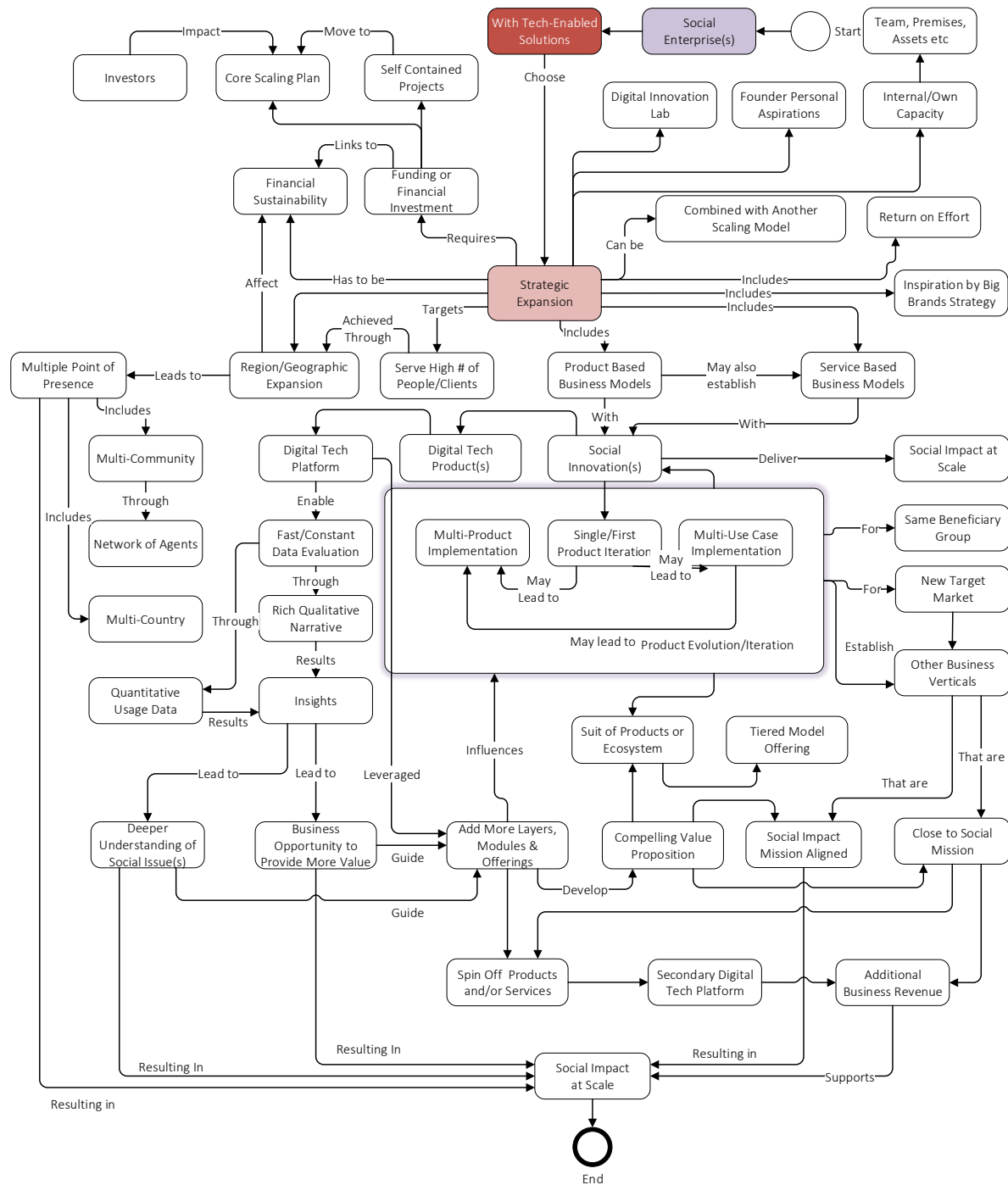


Figure 4—7: Strategic Expansion - Digital Tech-enabled SE's

Almost all social enterprises with tech-enabled social innovations choose strategic expansion as a scaling model; it is common to combine it with another scaling model to increase the return on effort. This adoption is driven by the desire to mirror the multi-community and multi-country operations of inspiring brands like Red Bull and other successful businesses. Aiming for increased access, these social enterprises build and deploy social innovations offering low-cost distribution. They structure a product-based business model and/or a service-based business

model through social innovation. Once the social innovation works practically after the first iteration or works perfectly in the initial market, the social enterprise then migrates to region/geographic expansion.

A different approach to strategic expansion is to consider multi-product or multi-use-case implementation. The product iteration or product evolution may lead to the social enterprise developing a suite of products within an ecosystem that talks to each other. This mostly occurs in product-led businesses where the use cases are close to each other.

The multi-use-case strategic expansions can also enable the business to scale into other verticals that are close to the initial social focus for the same base of beneficiaries. Region expansion is the most common form of strategic expansion. Before reaching a multi-product level, the first Trojan horse product has to set the tone. It can be a lower-tier solution that serves a large user base with the intention to convert to follow-up purchases of the second tier of products.

Even though these social businesses may have a core technology that helps to address the social issue, the business needs to remain connected to the context in which it operates. One of the social businesses chose to have a network of agents in the communities to continue building a good understanding while building operations in each of the major centers in the country. Their strategic expansion is to consider a series of services housed on the hardware network they have already deployed in communities. This strategy is common for tech social businesses that want to take advantage by adding more solutions/services that operate on top of the initial platform or leverage the initial codebase or hardware network already deployed.

Constant evaluation of the large quantitative usage data from the digital tech product combined with an ability to access rich qualitative narrative often brings insights into how the business can add more value more readily and scale their impact. Some social enterprises kept adding more layers/modules/offerings based on what they learned about the users/beneficiaries. This continuous enhancement and layering on the core digital platform meant that the overall offering became more compelling and engaging while still delivering on the original mission.

Social businesses that continuously work on layering additional value on the same platform end up with an option to scale further by introducing a new product or service as a spin-off when it no longer makes sense to build on the same base.

It is not possible to divorce massive investment from a strategic expansion scaling strategy. Going into new communities costs money upfront. Self-contained projects can fund the initial geographic scaling, but this soon becomes difficult, and the social ventures will choose to find one large funder that comes in at a scale level. The strategic expansion scaling model requires funding to grow internal capacity and premises, buy more assets, and expand the team. Additionally, these social enterprises need to look for investors who would assist with market

expansion into new regions of interest. Some regions or markets, like the US, may help social enterprises achieve a better return on effort.

One of the social enterprises combines strategic expansion through a multi-product strategy, geographic expansion in-country strategy and contractual partnership (joint venture) strategy in new countries to increase the likelihood of success. Another social enterprise positioned for a multi-product approach and conceptualised an innovation lab with the sole mandate to develop and commercialise additional digital technology products aligned to the organisation's mission. While still building multiple products, the social business also grew to 23 countries as part of the strategy through contractual partnerships / social franchising.

Founders may feel that running big organisations is going against their personal aspirations. In this case, the business would need to prioritise contractual partnerships and position other organisations at the forefront of implementation.

### 4.3.3: Contractual Partnership

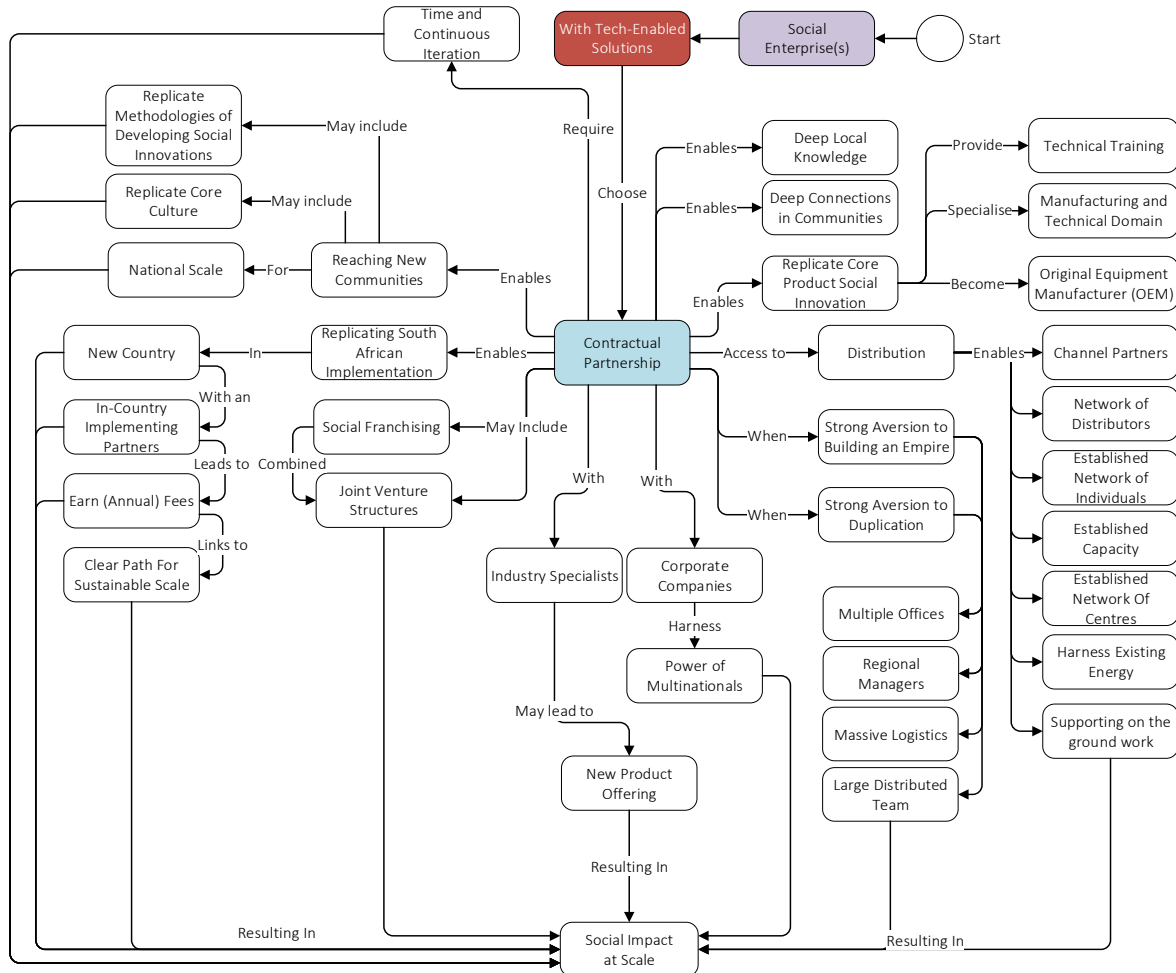


Figure 4—8: Contractual Partnership - Digital Tech-enabled SE's

Only 7 of the 13 tech founders selected contractual partnership as a scaling model. Contractual Partnership is useful when the Social Enterprise is scaling out the country because it enables

deep local knowledge, deep connections in communities without needing to set up operations. In this case, social enterprises can choose to operate as an original equipment manufacturers while providing technical training and specialising in the manufacturing and technical domain. Contractual Partnerships position the Social Enterprise to access broader distribution capability through channel partners, a network of distributors, established capacity, and an established network of centres to harness the existing energies, resulting in social impact at scale. Contractual Partnership becomes a good approach when the Social Enterprise has a strong aversion to building an empire or a strong aversion to duplication within the industry they operate in. Contractual partnership can avoid a Social Enterprise needing to set up multiple offices, hiring regional managers, and setting up a massive logistics and a large distribution team in an attempt to provide social impact at scale.

Contractual Partnerships can extend to corporate companies to harness their multinational footprint to reach more communities or working with industry specialists to bring about new product offerings resulting in social impact at scale. Contractual Partnerships may include Social Franchising and Joint Venture Structures. Contractual Partnership enables replication of what is working in South Africa in new countries with an in-country implementing partner. In this scenario, the Social Enterprise may earn annual fees from the implementing partner as part of their sustainability model.

Contractual Partnership enables the Social Enterprise to reach new communities by replication methodologies and core culture to bring about national scale locally and into new regions. Contractual Partnerships require time and continuous iteration to produce social impact at scale.

#### 4.3.4: Capacity Building

There were insufficient comments on capacity building in the data for this to be a significant theme within this research. Capacity building does not seem to be a significant theme for Case 1.

#### 4.3.5: Systemic Change Scale

There were insufficient comments on capacity building in the data for this to be a significant theme within this research. Capacity building does not seem to be a significant theme for Case 1.

### 4.3.6: Social Impact Scaling Strategy Summary

Based on overall comments pulled through by using the NVIVO matrix coding query function, I managed to build a summary for scaling strategies used by Case 1 social enterprises.

Table 4—2: Scaling Strategies for Case 1 Social Entrepreneurs

##	Social Business	Dissemination of Knowledge	Contractual Partnerships	Strategic Expansion	Capacity Building	Systemic Scale
1	SE_Tech_001	No	No	Yes	No	No
2	SE_Tech_002	No	No	Yes	No	No
3	SE_Tech_003	No	No	No	No	No
4	SE_Tech_004	No	No	Yes	No	No
5	SE_Tech_005	No	Yes	Yes	No	Yes
6	SE_Tech_006	Yes	Yes	No	No	Yes
7	SE_Tech_007	No	No	Yes	No	No
8	SE_Tech_008	No	No	Yes	No	Yes
9	SE_Tech_009	No	Yes	Yes	Yes	No
10	SE_Tech_010	Yes	Yes	Yes	Yes	No
11	SE_Tech_011	No	Yes	Yes	No	No
12	SE_Tech_012	No	Yes	Yes	No	Yes
13	SE_Tech_013	No	Yes	Yes	No	No

Table 10 indicates that the least used scaling strategy for social enterprises with a technology-enabled innovation is the Dissemination of Knowledge and Capacity Building. These are then followed by Systemic Scale as the 3<sup>rd</sup> least chosen scaling strategy. Strategic expansion is the scaling strategy most chosen by social enterprises in Case 2. Very few social enterprises will choose only one scaling strategy and often default to 2 or 3 strategies implemented simultaneously, with one exception for all four being used in the same organisation. SE\_Tech\_010 is the exception, utilising all four strategies, and it happens to be the oldest and most well-established organisation. I provide a detailed comparison of Case 1 and Case 2 in the Discussion and Key Learnings Chapter.

### 4.4: Developing Scaling Strategies

In this section, I explore how social enterprises with tech-enabled social innovations develop their scaling strategies. I do this by first investigating how they define scaling social impact and what this means for them. I then elaborate on the different role players instrumental in conceptualising the scaling strategy or choosing the relevant scaling model. I set out to understand the different stakeholders that have an influence on the process of developing a scaling strategy for a social enterprise. After that, I provide a rich description of the journey and pathway each of the 13 digital technology-enabled social enterprises went on to develop this scaling strategy. I then close the section by exploring scaling costs that the social enterprises raised. Other themes like access channels, scaling through emergence and scale concerns+ coded but did not have sufficient data to allow for an in-depth exploration.

4.4.1: Defining Scaling Social Impact

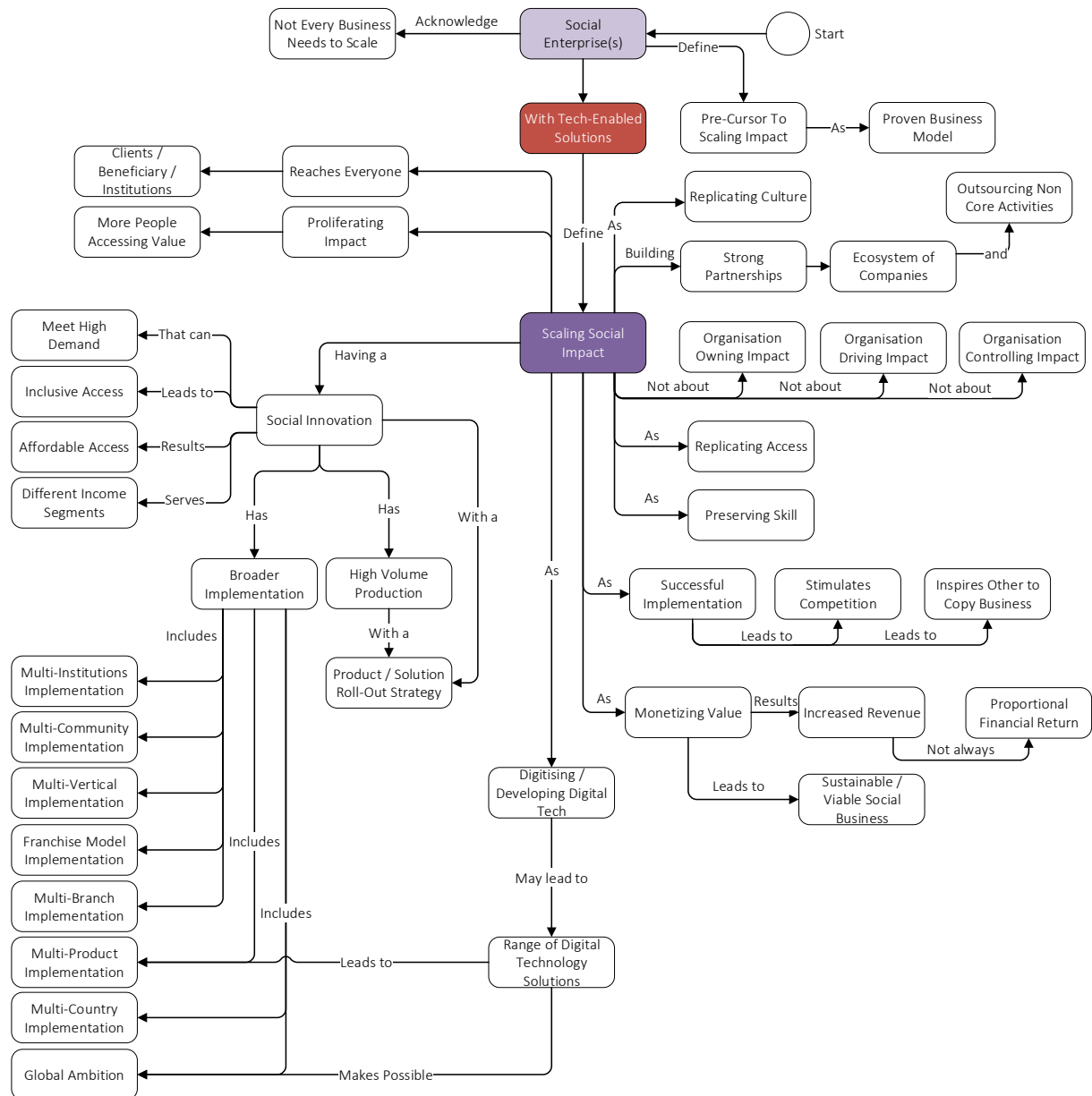


Figure 4—9: Defining Scaling Social Impact - Digital Tech-enabled SE's

While acknowledging that not every business needs to scale, a precursor to scaling social impact is a proven business model. Social Enterprises with a tech-enabled solution define Scaling Social Impact as reaching everyone (clients, beneficiaries and institutions) and proliferating impact so that more people can access value. Scaling Social Impact is possible through a social Innovation rolled out with high volumes. Social Innovation should meet high demand, lead to inclusive access, result in affordable access and serve different income groups. The social innovation may have a broader Implementation to include multi-institution implementation, multi-community implementation, multi-country implementation, franchise model implementation, branch model implementation, multi-product implementation and global ambition.

Social Enterprises with a tech-enabled solution define Scaling Social Impact as developing a culture of replication by building strong partnerships. Scaling Social Impact successfully may stimulate competition and inspire others to copy the business model. Scaling Social Impact happens in the context of monetising value to provide increasing revenue, which may not always be proportional to the financial return. Ultimately, this revenue leads to a sustainable and viable social business.

Scaling Social Impact is not always about the main social enterprise owning the social impact, driving the social impact, or controlling the social impact. Social Enterprises with a tech-enabled solution define Scaling Social Impact as digitising/developing a digital technology or a range of digital technologies (multi-product implementation) that makes global implementation possible.

## 4.4.2: Scale Development Role Players

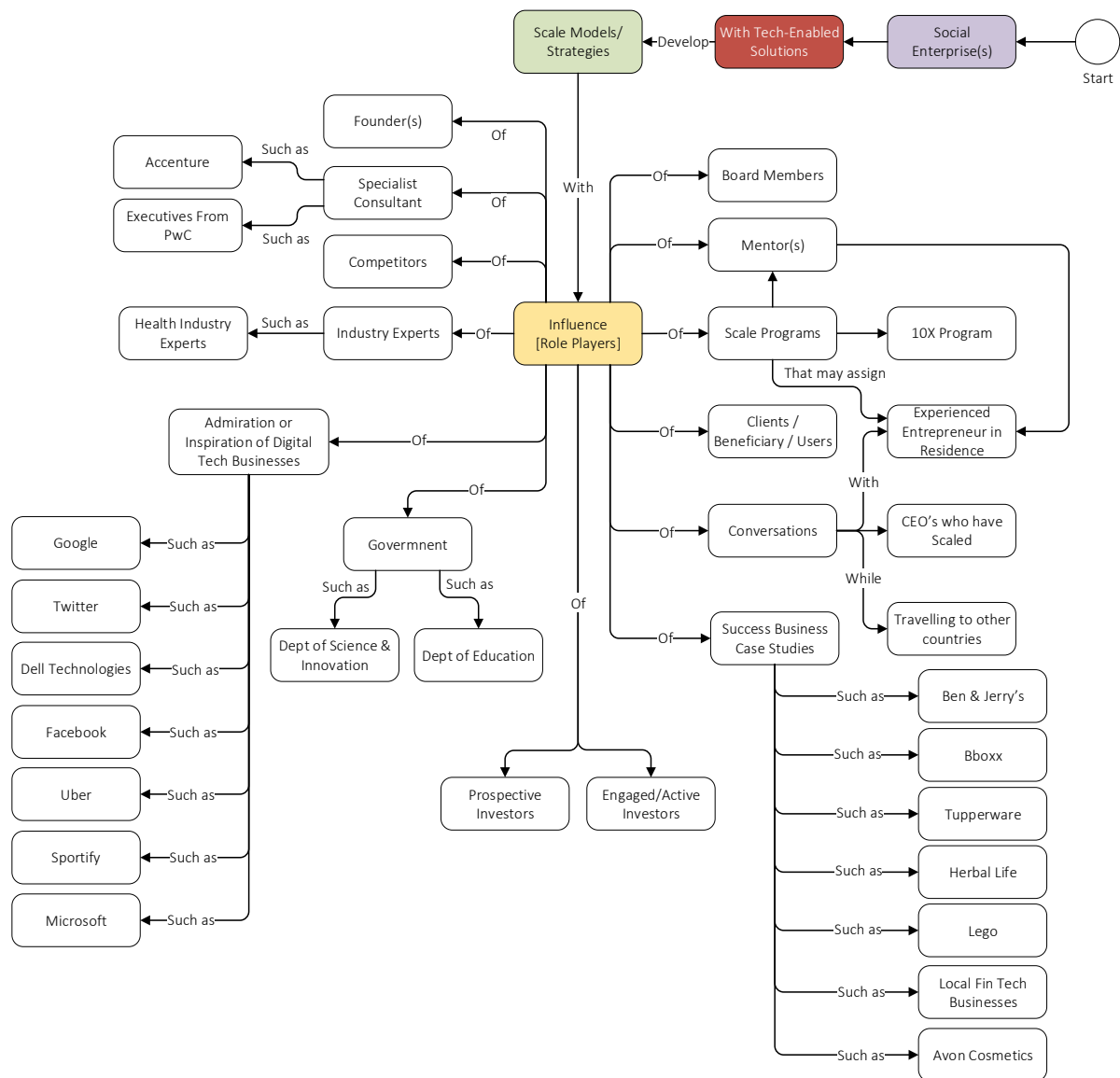


Figure 4—10: Role Players for Developing a Scaling Strategy - Digital Tech-enabled SE's

When exploring the different role players that are instrumental in conceptualising the scaling strategy or choosing the relevant scaling model, social enterprises with tech-enabled social innovation consider founder(s), board members, and mentors to be the most significant role players. In some contexts, industry experts in the health industry and consultants/executives from firms like Accenture and PwC can help shape the development of a scaling strategy.

Another role player that can influence the scaling strategy is bodies of Government such as the Department of Science & Innovation, Department of Education and Department of Health. Evaluation of the work of competitors' engagement with prospective & active investors also plays a role in the formulation of scaling strategy. Some of the founders affirm the voice of the client, beneficiaries, and users as important contributors to conceptualising the scaling model. Participation in scale programs such as the 10X program with experienced entrepreneurs in residence operating as mentors also shapes a social enterprise scaling strategy. Something as simple as travelling to other countries or conversations with CEOs who have scaled business plays a role is also highlighted.

When considering non-direct role players, successful business case studies of Ben & Jerry's, Bboxx, Tupperware, Herbal Life, Lego, and Avon Cosmetics Distributions do shape the founder's point of reference for scaling strategies. Similarly, these founders are inspired by and admire large digital technology businesses like Google, Twitter, Dell Technologies, Facebook, Uber, Spotify, Microsoft and many more.

### 4.4.3: Pathway for Developing a Scale Strategy

In this section, I provide summaries of the scaling strategy development journeys of the 13 digital technology-enabled SEs. I focus on each organisation's path to provide a richer description.

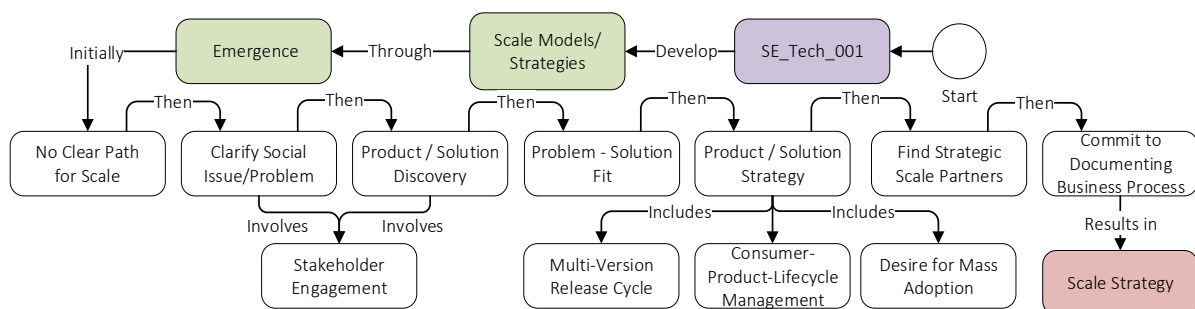


Figure 4—11: SE\_Tech\_001 Scale Strategy Pathway

The founder of this social business talks of not having a clear path to developing the strategy from the onset but rather going through the process of understanding the issue, talking to people and determining the best way to address the issue through the product. Their product strategy of releasing versions of the solution was influenced by the desire for beneficiaries to experience product improvements as they happen and consumer-product-lifecycle management trends. Affordability is a significant factor in how the product was developed and how social business plans are scaled.

In the pursuit to reach more people and get the device to everyone, the founder realised that it might be better to partner with federations than the beneficiaries below to access the masses through strategic relationships. Committing to the process of documenting a scaling plan has helped the founder with accountability and an ability to monitor and measure progress. The business put significant effort into building anticipation of the product while it was still in development as a way to induce mass adoption on release.



Figure 4—12: SE\_Tech\_002 Scale Strategy Pathway

For this founder, Scale was a goal from the very beginning. Scalability was baked into the solution design. The product was designed to be cheap, easy, and accessible, with the end game of mass adoption. The founder is adamant that solutions only scale if they do not need to be pushed, if they address the needs of various stakeholders in the environment, and if they integrate well without high barriers to achieving change in people's daily patterns.

The organisation puts high effort upfront on training to drive system adoption, then pulls out over time to test community ownership of the system and self-drive. The founder laments the fact that you can't talk about scale without the resources needed to make it possible, and social enterprises cannot expect to get funded for 100 years. Their scaling strategy had to address accessing resources and making systems self-sufficient. Funders only come in to initiate the solution deployment for a fixed period until the solution is self-sustaining. It is costly at the start, and it takes longer than expected, but it pays off to develop a scaling strategy this way.

The organisation also had to pay attention to the prevailing culture, changing perceptions and engaging different stakeholders. The scaling strategy was also to launch a product that targets the low-hanging fruit while the founders have time to take on a bigger opportunity with bigger margins in the long run. The scaling strategy was designed to deploy a set of devices that collectively give rise to a network. The second phase of the strategy is to explore this network more effectively for better monetisation as a distribution channel. In developing the scaling model in an organic way, the social enterprise has baked in multiple revenue approaches, even if some of them will only be implemented later.

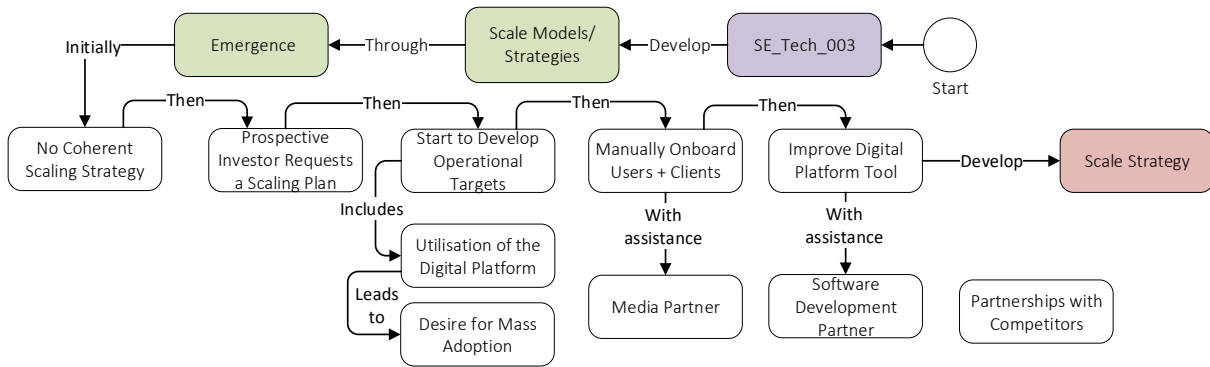


Figure 4—13: SE\_Tech\_003 Scale Strategy Pathway

Developing a scaling strategy for this social enterprise was an afterthought. The process of developing a coherent scaling strategy started when prospective investors asked the founder for a scaling plan. This set in motion a process of developing targets and activating processes to promote the utilisation of the digital platform.

The social enterprise operates a double-sided market platform, which means the organisation has to scale utilisation on both ends of user types to avoid stagnation. To achieve the initial critical mass, the founder had to reduce focus on the digital platform tool and do things manually to on-board the users. Following this, the team then needed to introduce the digital platform at a point where efficiencies were needed to achieve scale.

The scaling plan was developed with a reliance on partners that can help develop the digital platform and partners that can help ensure media coverage. Competitors have now become partners in the scaling plan.

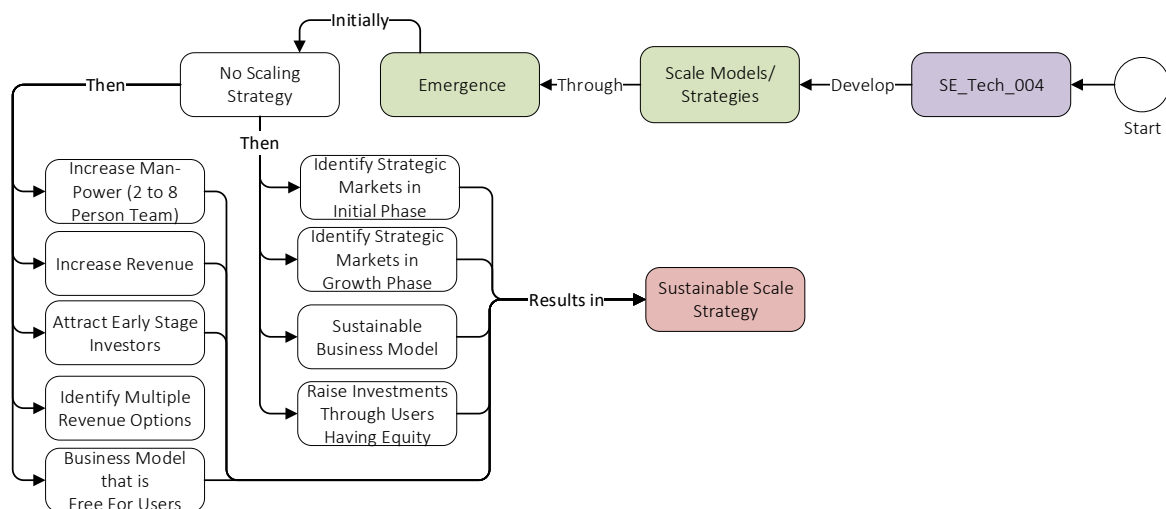


Figure 4—14: SE\_Tech\_004 Scale Strategy Pathway

For this social enterprise, developing a scaling plan entailed moving from a 2-person team to an increased workforce. The scaling plan is a byproduct of a desire to increase revenue through the network, attract early-stage investors, make a call on strategic markets to enter the initial

phase and during the growth phase and define constraints specific to the business. Since the solution is free for the users, the founders had to explore multiple options for revenue to determine how to build a scaling plan sustainably. To address scale resourcing, the founders sold an equity stake to users who wanted to own a portion of the solution that they use on a daily basis and have come to know so well.

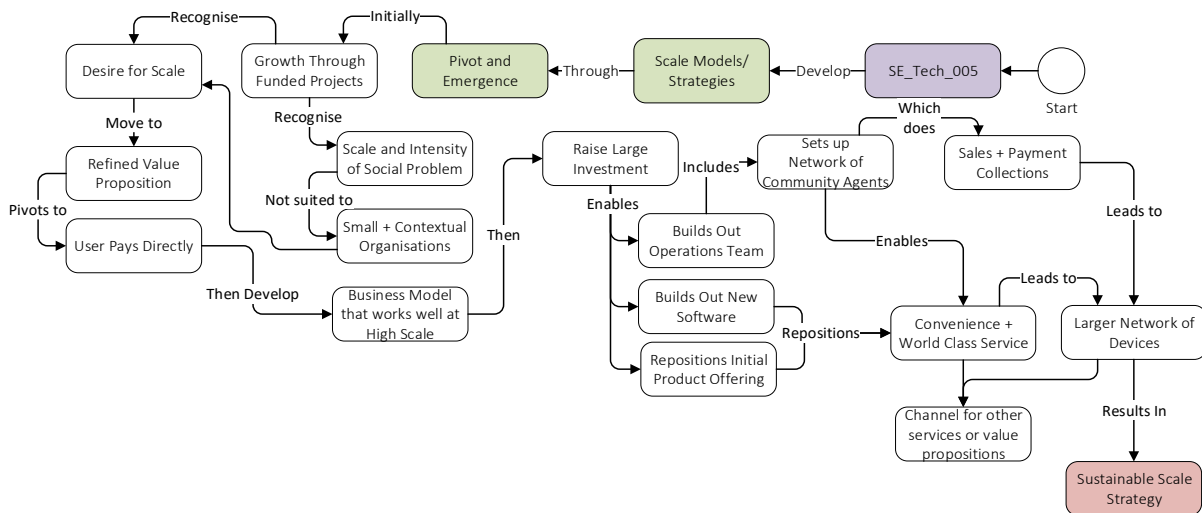


Figure 4—15: SE\_Tech\_005 Scale Strategy Pathway

For this social enterprise, developing a scaling strategy came with a shift away from developing technology and selling it through funded projects to changing the value proposition by finding a component that users are able to pay for directly. The business recognises that when dealing with major social problems, it is inappropriate to develop a small, overly contextual organisation that does not reach many people. A significant motivator for scale is that the social enterprise's business models only work well at a large scale.

The social enterprise raised a large investment round to scale operations, build out the software and reposition the initial product to align with the improved value proposition. Acknowledging that it is difficult to scale in low-income countries with a tech play only, the social businesses also scaled up by putting together a network agent deployed into the communities for sales and payment collections. The true value proposition is convenience through world-class service offered by self-managed agents that are built up from region to region.

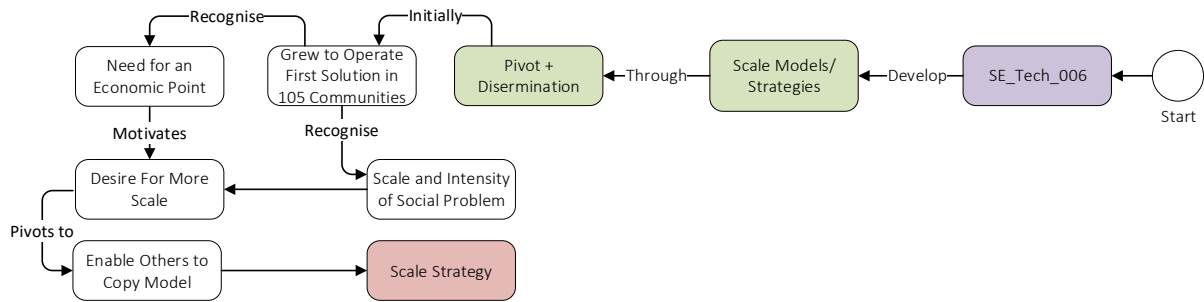


Figure 4—16: SE\_Tech\_006 Scale Strategy Pathway

For this social enterprise, developing a scaling strategy started after realising that there was an economic point. The scaling plan involves helping those who want to copy the model, given that the market is so wide. The business also had to pivot based on learning in the field after launching and scaling the initial offering to 105 communities.

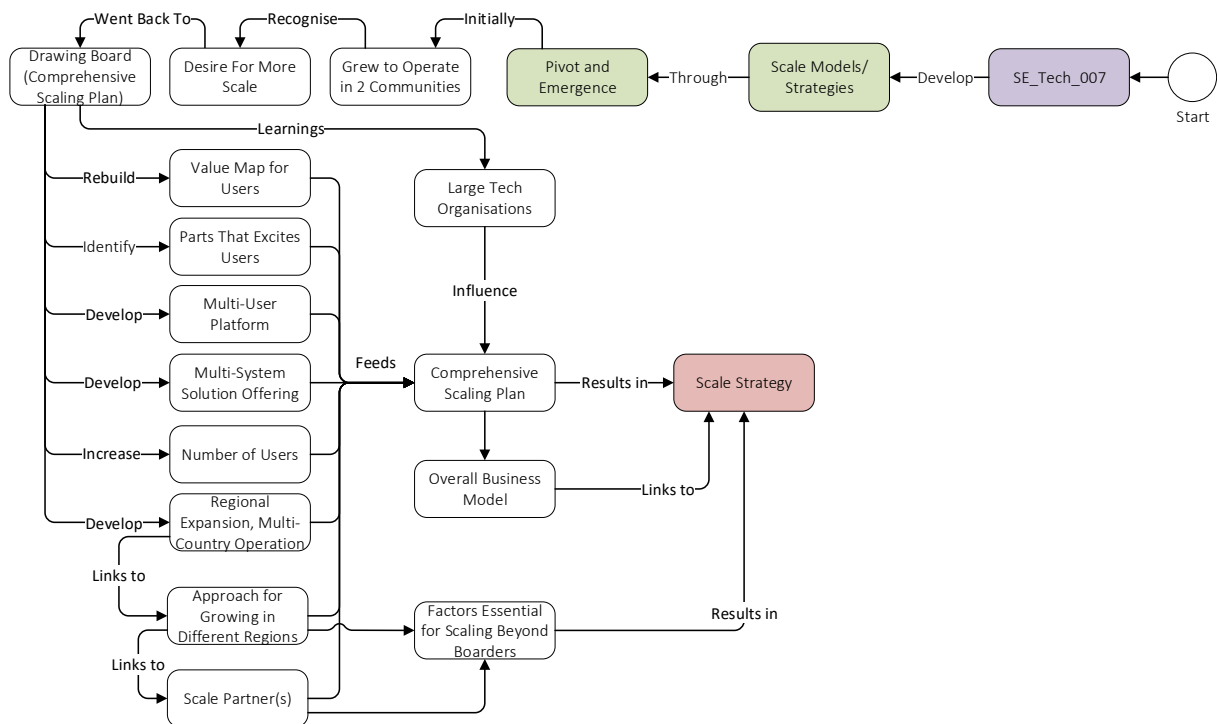


Figure 4—17: SE\_Tech\_007 Scale Strategy Pathway

Developing a scaling strategy for this social enterprise involved going back to the drawing board and mapping out what users found valuable and scaled parts that met their needs. The organisation went from a single solution to a multi-system solution, multi-user as one dimension of scale. On the second dimension, the social enterprise is also scaled by increasing the number of users on an actual platform. Closely aligned was scaling in the number of geographic regions, exploring neighbouring countries, and defining an approach for growing in those regions. All these dimensions had to be fed into the financial model and overall business model to ensure that the approach for the scaling plan is comprehensive.

Operating in a new country gave the business an opportunity to define factors essential for scaling beyond borders. Finding a local player that is well networked in the same space, has a pull factor and is well known in the new country accelerated growth and uptake. The scale strategy was also influenced by learning from other organisations, such as Facebook.

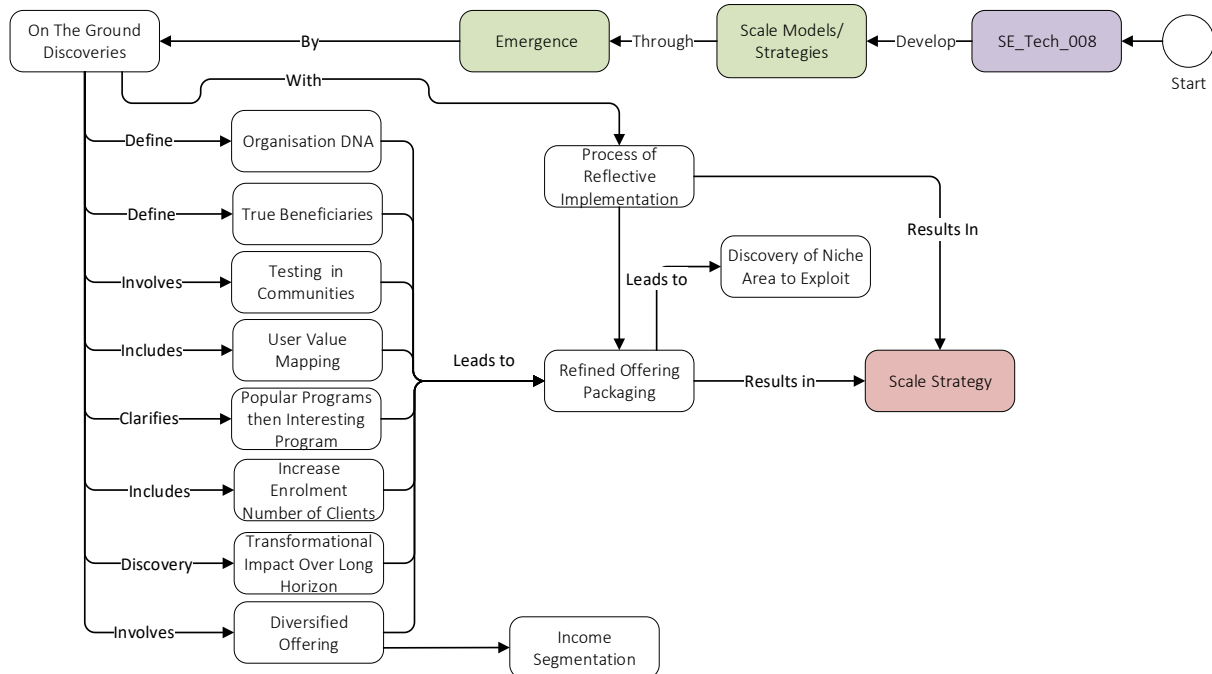


Figure 4—18: SE\_Tech\_008 Scale Strategy Pathway

For this social enterprise, developing a scaling strategy involved testing the introduction of social innovation through rigorous community testing. The program was meant as a gateway to introduce other programs that the community would find valuable. The testing process was useful in defining the Organisation’s DNA and who the true beneficiaries need to be. E.g., attracting kids who do not think math and science are for them.

The scaling strategy for expanding programs came naturally based on on-the-ground discoveries. The team kept on deciding what to do next as they progressed to deliver value.

The managed team started positioning for scale by defining what the users responded to best, and doing more of that, kids responded to visually appealing/pleasing experiments in a specific area of STEM. The team would then lead with the popularised items in order to gain enrolment. The initial engagement is followed up with other interesting programs that bring in real people in a particular domain of interest for the kids through interactions.

For this organisation, the time horizon is long before seeing a transformational impact in the student's life. Keeping the user engaged and interested through the crucial years is important and needs to be balanced with enrolling more clients.

Scale is also achieved through diversifying offerings to a different segment. Higher-income segments are charged a premium to subsidise low-income users. The organisation would scale

by taking what works and implementing it in different regions. It is in this process of reflective implementation that the organisation has discovered a niche area to exploit around mismatched skills.

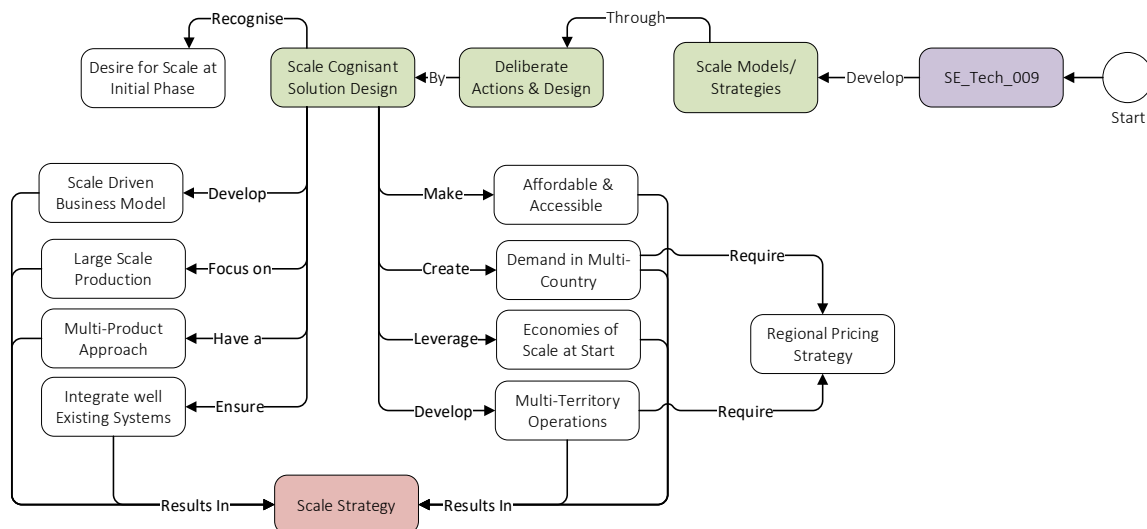


Figure 4—19: SE\_Tech\_009 Scale Strategy Pathway

For this social enterprise. Developing a scaling strategy involved finding the most affordable way for tech education. Getting a simple version of the solution out, creating demand in multiple countries, and leveraging economies of scale to introduce a product at a large scale right from the beginning. This approach means that the scaling process had to be built right into the business model. The scale-first approach required the team to focus on processes for producing thousands of units instead of methods for hundreds of units. Product quality, the upfront costs of tooling and supplier negotiations motivated the scale-first approach.

The founders desire to become an original equipment manufacturer (OEM). The organisation is also considering a tech ecosystem approach where they plan to produce adjacent products that work well and/or enhance the benefits users get from the initial product launch. Strong integration into the education curriculum is part of the strategy to build stickiness for the product range. The organisation is taking the approach of setting up satellite offices in new territories reporting to a central office. Product distribution is managed from the international head office with a country-specific pricing model. The organisations plan to replicate their South African model in other countries.

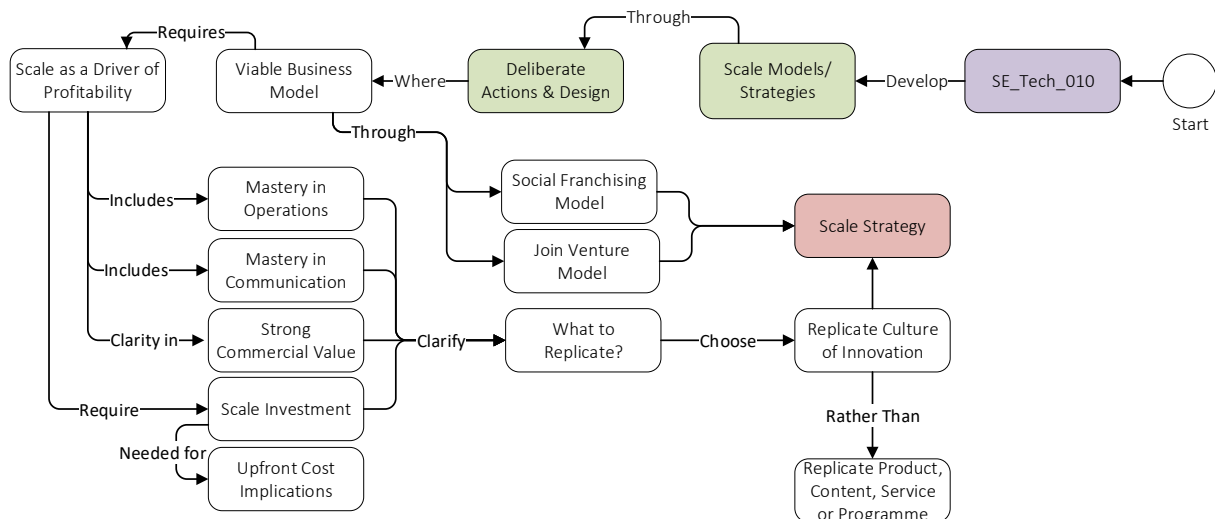


Figure 4—20: SE\_Tech\_010 Scale Strategy Pathway

For this social enterprise, developing a scaling strategy involves first acknowledging that the most viable business model is one that has scale as a driver for profitability. They pushed to master operations at the community level while building up an understanding of what works because of local context and what needs to be changed when moving to a new context. The founder stresses the reality of someone needing to fund this process.

In doing a few interactions, the idea of social franchising came on top as an approach to embark on to gain rapid numbers. Scale is an expensive exercise because of the huge cost implications upfront and investments needed during scale to sustain growth. The team has currently suspended growth after expanding to multiple communities. The social enterprise has settled on a mixture of the social franchise model and the collaboration joint venture model. Partners cover the cost of scaling into new areas.

The social enterprise also needed to be concrete on what to replicate, and they ultimately decided to focus on replicating the culture of innovation that has given them so much success. The use of technology is a lever for successful solutions, and they plan to make open most of the projects that they have built previously to increase the scale of the impact. Scaling in social enterprises can become complex because It is not always about scaling the organisation or scaling the piece that has commercial value. Additionally, replicating culture and values is more difficult than replicating products, content, services, or programs.

This social enterprise has settled on an approach of scaling the culture of an organisation that has built and run successful social innovations that have created impact. This means that the scaling always happens externally to the core organisation.

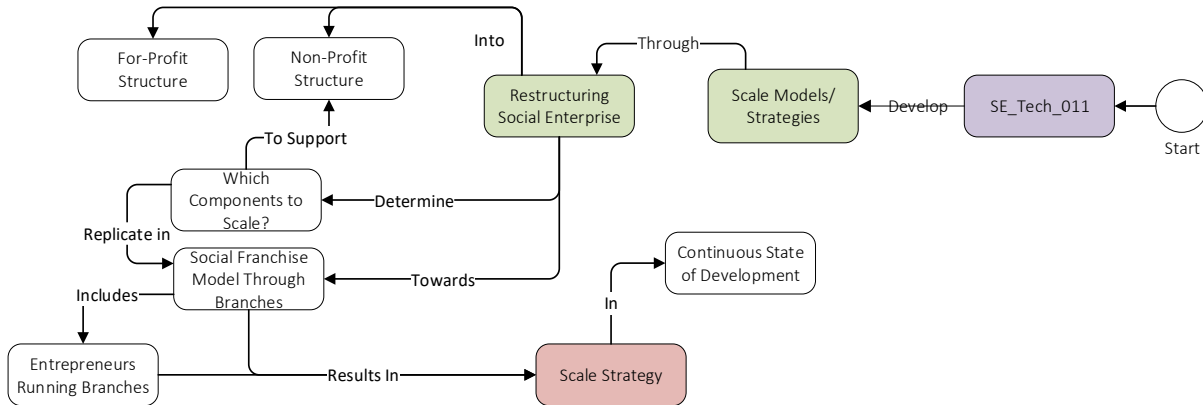


Figure 4—21: SE\_Tech\_011 Scale Strategy Pathway

For this social enterprise, developing a scaling strategy involved restructuring the for-profit and non-profit parts. Identifying components that are worthwhile to scale in order to support the no-profit. The social enterprise scale model is focused on building an ecosystem where the students trained can give feedback to the program as entrepreneurs running branches or technical contributors to digital technology development. The branch model is technically run as a social franchise model in various regions.

The founders are adamant that the scaling model is in a continuous state of development and can be changed if new insights become available and help the organisation grow.

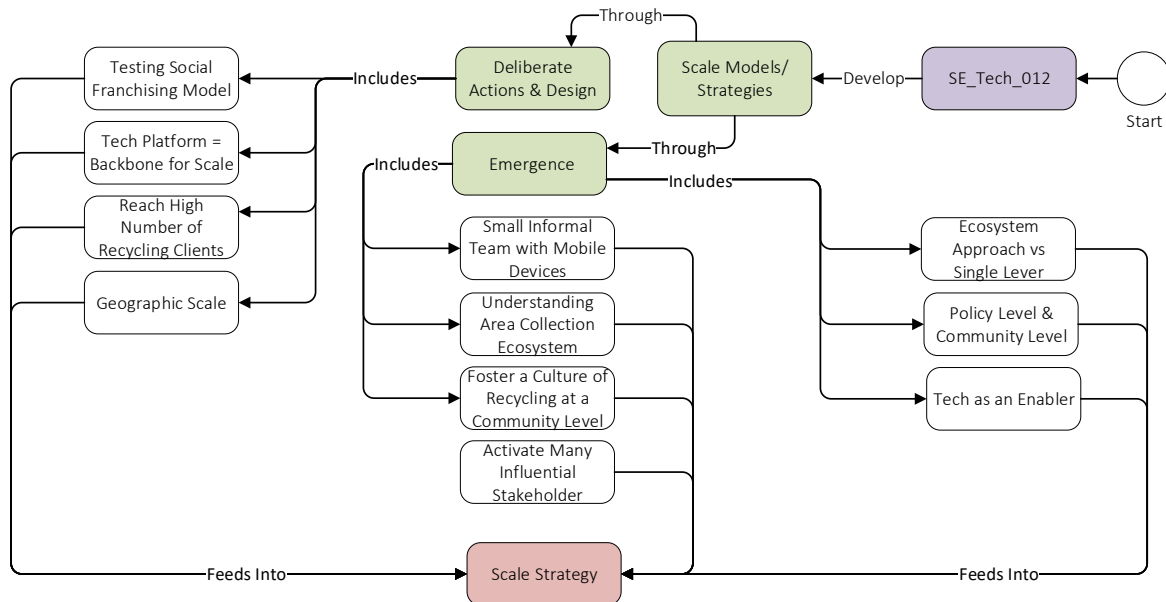


Figure 4—22: SE\_Tech\_012 Scale Strategy Pathway

For this social enterprise. Developing a scaling strategy involved testing social franchising with their core beneficiary, which may be a small informal team in the communities using the mobile platform of the social enterprise to service customers.

The founder points out that the technology platform is their core backbone for achieving scale. The core strategy is to educate and incentivise recycling for as many residential clients as possible. When the organisation moves into a new area, they on-board new waste collectors while taking time to understand the waste collection ecosystem in that area. They ignite scale at a community level by fostering a culture of recycling and connecting waste collectors to households. Additionally, at a community level, the organisation seeks to activate as many influential stakeholders in leadership positions as possible to buy into the change being proposed.

The ecosystem approach is essential for the organisation's scaling strategy. It is never a single-lever model where one thing is activated to give rise to an effective scale model. Its actions are in a continuum between policy level and community ground level. Scale happens when the social enterprise activates impact on the whole ecosystem throughout the whole chain. For this organisation, technology is an enabler and not the heart of the scaling strategy.

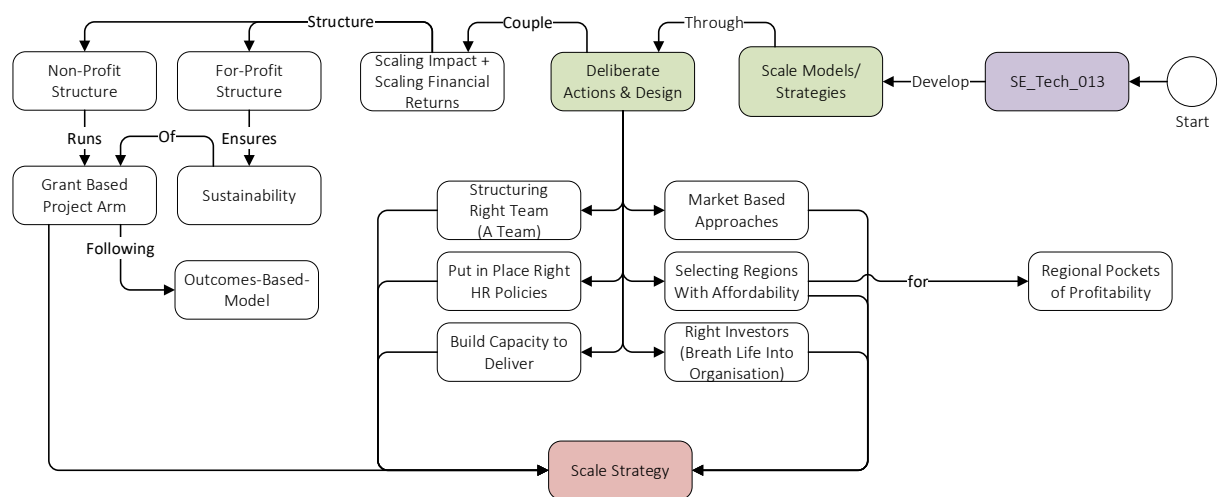


Figure 4—23: SE\_Tech\_013 Scale Strategy Pathway

For this social enterprise: Developing a scaling strategy involved coming up with an approach that tightly couples scaling impact and scaling financial returns. The organisation runs a for-profit and a non-profit model, with the non-profit arm being responsible for grant-based projects while the for-profit arm makes sure that those projects are sustainable beyond the initial grant funding.

Structuring the social enterprise vehicle, this helps avoid situations where projects come to an end after a certain stage and do not scale. The organisation is managing the tension between product focus and scaling focus/getting the product out there.

In approaching scale, the social enterprise also puts emphasis on the team. Hiring people with the right fit, aligned vision, aligned mission, and aligned cultural values is important for scale. To meet the needs of the scaling strategy, the organisation has to hire A Team player and put in place an HR process that helps find the right people.

Additionally, the founder points out that It is not about rapidly growing the core team but finding innovative ways to build capacity to deliver at scale without growing the core team too rapidly. The scaling strategy for this social enterprise also involved finding the right investors to breathe life into the organisation's objectives.

The organisation has built various approaches in different markets. In some markets, they operate as a technical partner where another organisation with a deep local context focuses on sales and distribution, while in other markets, a deeper process of setting up a local team is required.

The organisation's scaling strategy recognises that it is difficult to scale in countries where there is no money, and the organisation has to be more creative in finding client or grant providers. Market selection is important; products that are classified as expensive in South Africa are perceived as affordable in the US. So, the organisation's scaling strategy has a regional lens for identifying pockets of profitability. The social enterprise follows an outcomes-based model as opposed to a product sales approach. The clients in the US prefer to pay for the efficiency or the benefit on a service model instead of paying for the product.

The founder highlights that the organisation made the mistake of believing that the technology is what they are selling. It is not a linear relationship between what the organisation has developed versus what the clients are going to pay for. People are willing to pay for access to affordable care. Positioning the value proposition is a significant contributor to large-scale adoption and the business model's success.

4.4.4: Scaling Costs

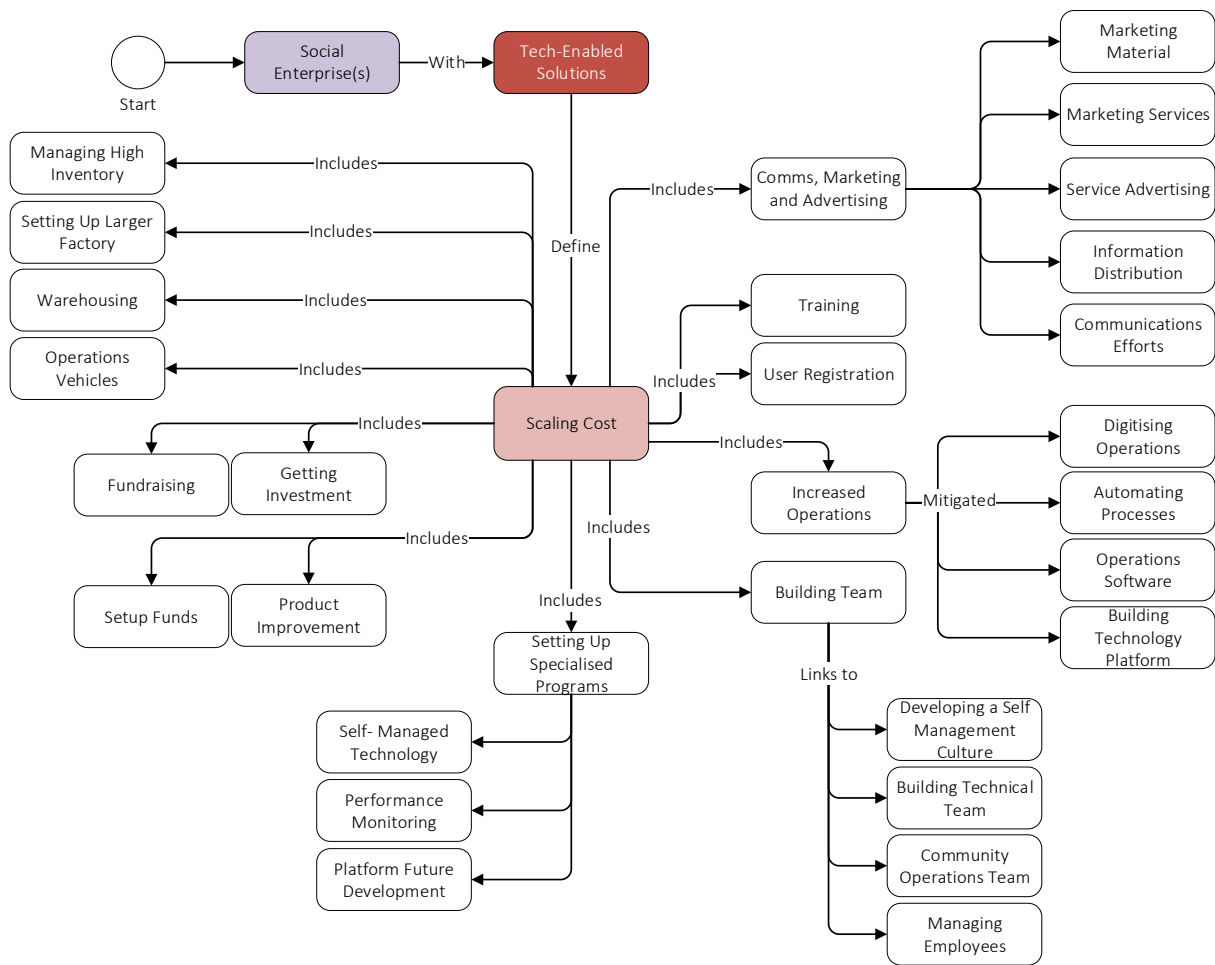


Figure 4—24: Scaling Costs - Digital Tech-enabled SE's

Social Enterprises with a tech-enabled solution define Scaling Costs to include increased operations, which can also be mitigated by digitising operations, automating processes, and introducing different types of software together with a custom technology platform that is aimed at easing operations. The founders in this group highlight the process of building a team as a significant component of scaling costs. Building a team is connected to developing a self-management culture, building a technical team, enhancing the community operations team, and managing employees.

Other additional scaling costs are for product improvement, fundraising or raising investment and overall setup costs. These social enterprises must consider increased training and increased user registration efforts that contribute to scaling costs. Marketing, Communications, and Advertising also go up. These organisations must spend more on communication efforts, information distribution, advertising and creating marketing material. Scaling costs for this group of social entrepreneurs also include setting up larger facilities, warehousing, increasing operations vehicles and managing high inventory.

## 4.4.5: Perceptions of SE's with Tech-Enabled Solutions on Traditional NPO vs New SE's

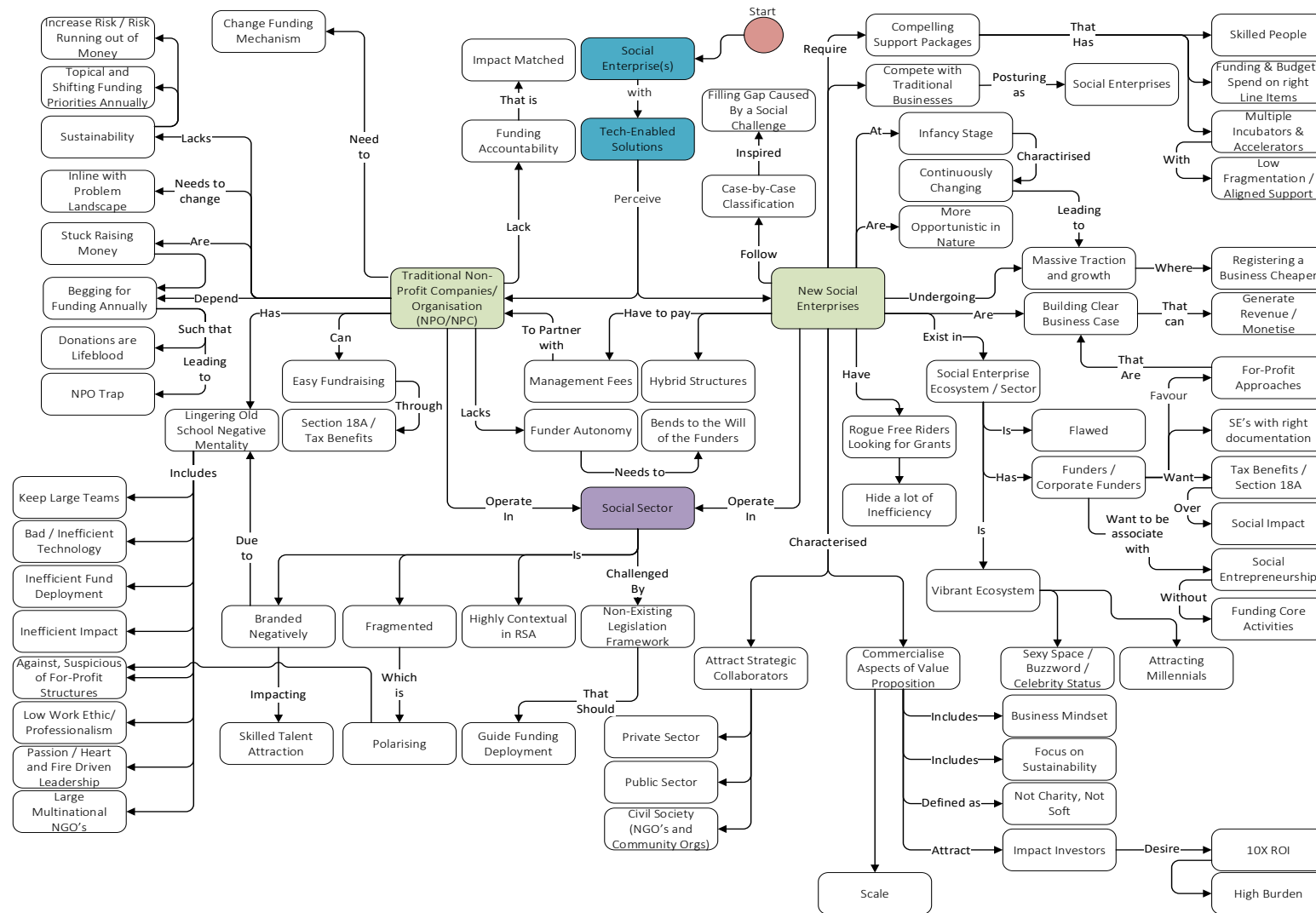


Figure 4—25: Consolidated Perceptions of SE's with Tech-Enabled Solutions on Traditional NPO vs New SE's

## 4.5: Key Environmental Factors for Scaling Social Impact

In this section (summarised by concept map Figure 4—25), I explore the founder’s perceptions on the environmental factors that affect scaling social impact in South Africa. It is important to note we look at the Top 10 factors that came up when exploring all themes for the environmental level of analysis. The first three themes are interrelated, while the last 7 (4.5.2 to 4.5.8) can stand on their own.

### 4.5.1: Social Enterprises Vs Non-Profit Companies (NPCs/NPOs)

In the sub-section, I explore the perceptions of social enterprises with tech-enabled solutions on traditional non-profit companies/organisations against new social enterprises. The summary of the findings is represented in Figure 4—25

#### 4.5.1.1. Traditional Non-Profit Companies/Organisation [NPO/NPC]

Traditional non-profit companies are perceived to lack funding accountability that is impact-matched. These organisations also need to change their funding mechanism. They are perceived to depend on begging for funding annually, dependent on donations as their lifeblood. They lack sustainability because of topical funding, shifting funder priorities, which leads to an increased risk of running out of money. The lack of sustainability and the need for continuous fund-raising leads to the NPO being characterized by a lack of funder autonomy.

Traditional non-profit companies are perceived to have lingering old-school negative mentality that includes the need to keep large teams with inefficient technologies, inefficient fund deployment and inefficient impact. They are suspicious of for-profit structures, have a low work ethic or professionalism, and are driven by leadership characterized by good hearts and passion only. They rely on the “Section 18A”<sup>4</sup> tax benefits for easy fundraising.

#### 4.5.1.2. New Social Enterprises:

New social enterprises are perceived to be at an infant stage of continuous change, optimism, massive traction, and growth. They must compete with traditional businesses that are postering as a social enterprises. These organisations must build clear business cases that are able to generate revenue and monetize impact. They require compelling support packages supported by skilled people, funding, incubators and accelerators with aligned support structures and implementation.

New social enterprises exist in a flawed social ecosystem that has corporate funders that only want to be associated with social enterprises without funding core activities. The funders want tax benefits through Section 18A, organisations with the right documentation, and for-profit

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<sup>4</sup> Public Benefit Organisation approved to issue Section 18A certificates in terms of Section 18A of the Income Tax (Act 58 of 1962). Meaning that a taxpayer, or a company, can make a bona fide donation in cash or in kind (material assets), this qualifies as a tax deductible expense. However, the donation cannot exceed 10% of taxable income

approaches that are linked to clear business cases. Social entrepreneurship is vibrant, sexy and is the new buzzword that attracts celebrity status, especially for the millennials. However, it also has rogue free riders looking for grants while hiding a lot of inefficiency in the models.

The push to commercialize aspects of the social value proposition includes a business mindset, a focus on sustainability, and avoiding a charity mindset while attracting investors. Some of the investors in the landscape desire 10X returns on investment, which places a high burden on social enterprises. The push to commercialize social value is connected to scale.

New social enterprises are characterized by attracting strategic collaborators in the private sector, public sector and civil society. They often choose hybrid structures to avoid the need to pay management fees to traditional non-profit companies with Section 18A's.

#### 4.5.1.3. The Social Sector:

Both social enterprises and traditional non-profit companies operate in a social sector that is perceived to be highly contextual, fragmented, polarized, and negatively branded due to lingering old-school mentalities. The social sector also lacks a legislative framework to guide funding deployment. This is of particular significance because through the existing Tax legislation, Corporate Funders and Large Foundations are only incentivized to fund social issues tackled by non-profit structures over for-profit structures despite the ability for both social enterprise structures orientation towards creating social impact.

4.5.2: Funding Landscape

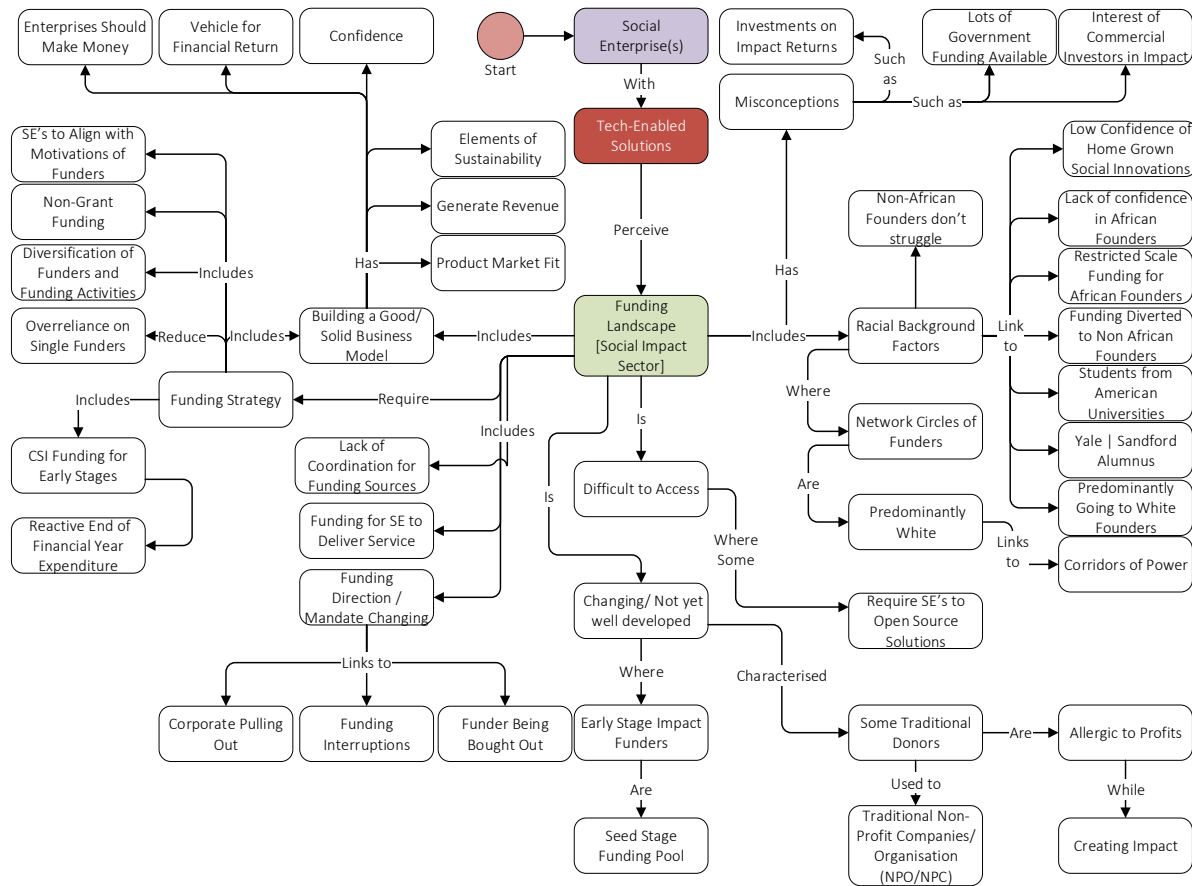


Figure 4—26: Perceptions on Funding Landscape- Digital Tech-enabled SE's

Social enterprises with tech-enabled social innovations perceive the funding landscape to be difficult and riddled with misconceptions. The common misconceptions include the sense that it is possible to receive investments on impact returns only, that the government has lots of funding available and that commercial investors are interested in impact. Racial background factors matter since the main network circles of funders are predominantly white, which links to corridors of power. There's a sense that non-African founders do not struggle as much as black African local founders. The lack of confidence in African founders with homegrown social innovations is restrictive to the funding scale. Funding is generally diverted to non-African founders from American Universities such as Yale and Stanford, who are predominantly white.

The tech-focused funding landscape is not yet well defined and is undergoing changes where early-stage impact funders are putting together seed-stage funding pools. It is characterized by traditional donors that are used to funding traditional NPOs/NGOs being allergic to profits while creating impact. The landscape is also characterized by a lack of coordination of funding sources, especially where funding mandates can change, leading to funding interruptions or funders pulling out.

The difficulties within the funding landscape push these social enterprises to develop funding strategies that reduce overreliance on single funders, align to funder motivations, diversify

fundors & funding activities, target CSI/CSR for early-stage opportunities at the end of the corporate financial year and build a good solid business model.

Good Business models have product market fit, generate revenue, have elements of sustainability, evoke confidence, become vehicles for financial returns and push the organisation to make money.

### 4.5.3: Support Structures

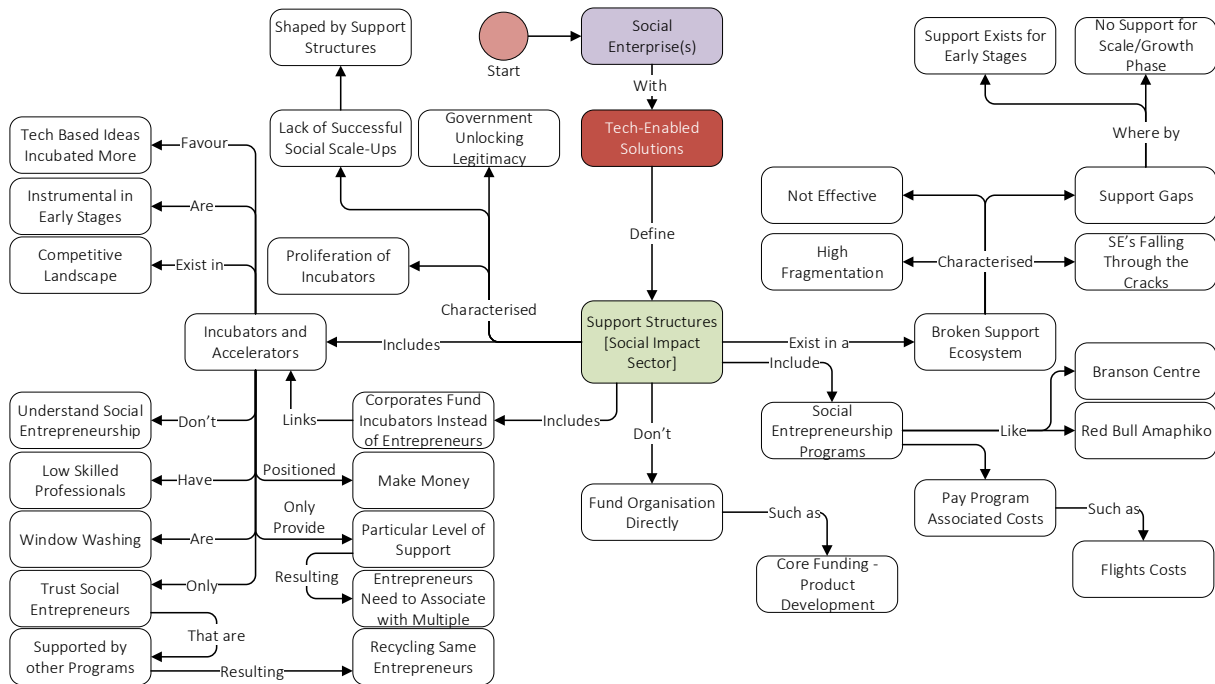


Figure 4—27: Perceptions on Support Structures - Digital Tech-enabled SE's

Social enterprises with tech-enabled social innovations perceive the support structures to have a proliferation of incubators and accelerators that do not really understand social entrepreneurship, have low-skilled professionals, are positioned to make money, are window washing, recycle the same entrepreneurs, provide a particular level of support resulting in entrepreneurs needing to associate with multiple programs. Corporations fund incubators instead of funding social organisations directly.

The Incubators and accelerators operate in a competitive landscape that tends to favour tech-based ideas during the incubation phase. The support landscape is characterised by a lack of successful social scale-ups shaped by the support structures. The government has been playing a role in unlocking legitimacy for these social enterprises.

The support structure is a broken ecosystem characterised by high fragmentation, inefficiency, social enterprises falling through the cracks and support gaps where support is heavily weighted towards the early stage with little support for the scale/growth phase. The support structures mostly consist of social entrepreneurship programs like Branson Centre, Redbull Amaphiko and others.

4.5.4: Scale Partners

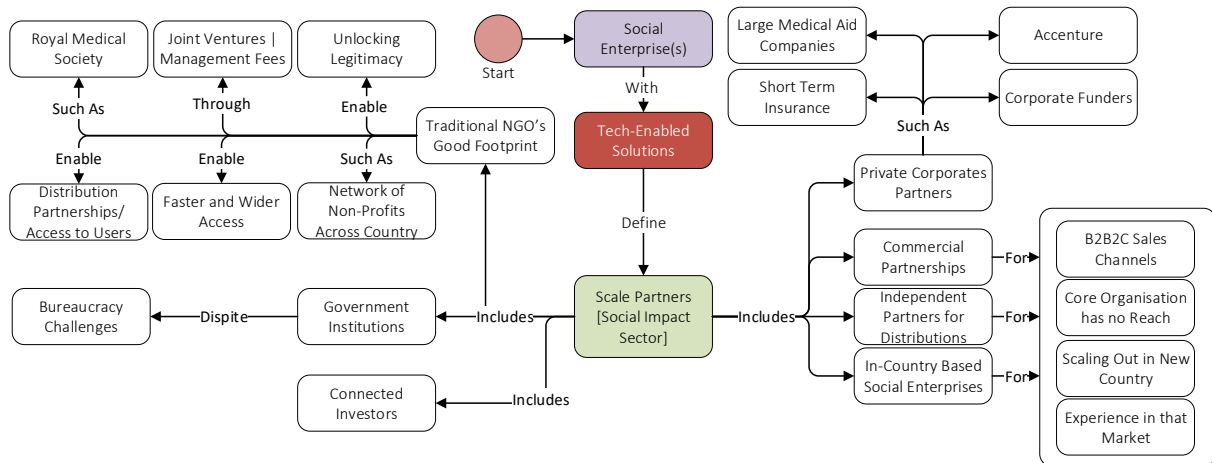


Figure 4—28: Perceptions on Scale Partners - Digital Tech-enabled SE's

Social enterprises with tech-enabled social innovations define the scale partners in the social impact sector to include other social enterprises in-country, independent partners for distribution, and commercial partners. These three profiles are best leveraged for B2B2C sales channels, scaling out into new countries, and experience in new markets when a core organisation has no reach. Private corporate partnerships such as short-term insurance providers, large medical aid companies and corporate funders also serve as scale partners for these social enterprises.

Connected investors and government institutions, despite the bureaucratic challenges, also make excellent scale partners. Partnerships with traditional NGOs with good footprints unlock legitimacy and enable distribution partnerships for faster and wider access to users. Social enterprises can enter joint ventures and work with a network of non-profits across the country.

4.5.5: Community

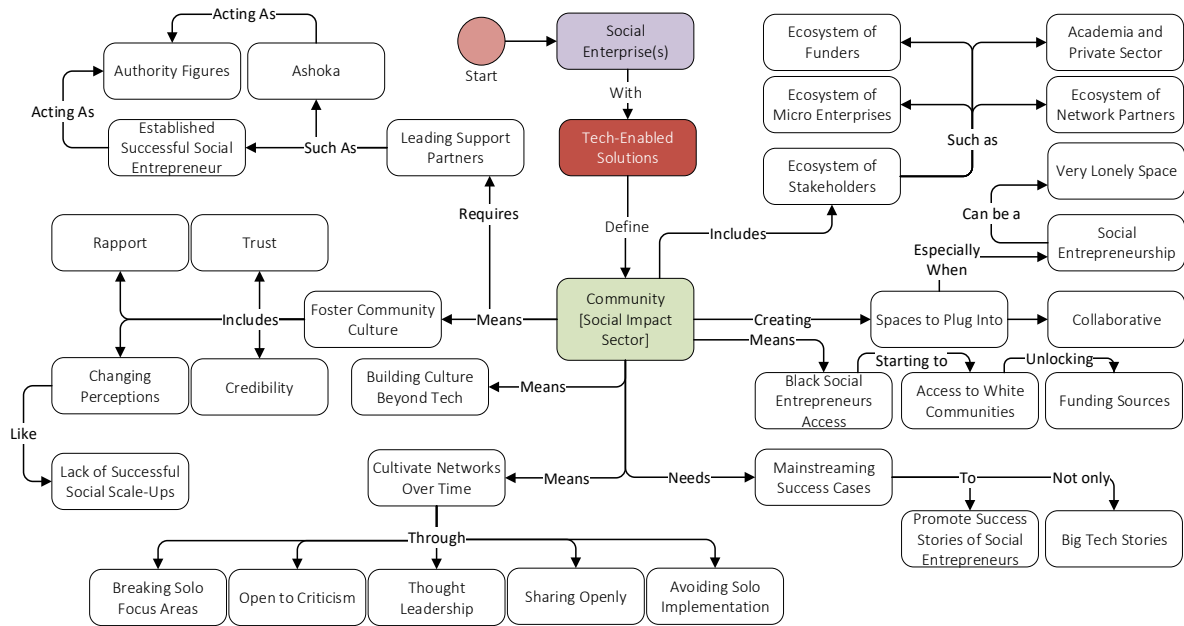


Figure 4—29: Perceptions on Community - Digital Tech-enabled SE's

Social enterprises with tech-enabled social innovations define community as creating spaces to plug into, collaborate and build a culture beyond digital technology. Community is an ecosystem of stakeholders such as the funder network, academia, private sector and scale partners. A positive sense of community and belonging helps address the loneliness experienced by social entrepreneurs.

Community for this subgroup means fostering a culture of trust, good rapport, credibility and changing perceptions. These social enterprises advocate for a community that mainstreams success cases by promoting stories of social entrepreneurs and not only big tech stories. Community also means cultivating networks over time by breaking silos, being open to criticism, offering thought leadership, sharing openly and avoiding solo implementations.

One of the founders defines a healthy community as including the ability for black social entrepreneurs to start to access white communities to unlock funding sources. The community requires leading support partners such as Ashoka and established successful social entrepreneurs acting as authority figures.

4.5.6: Digital Infrastructure

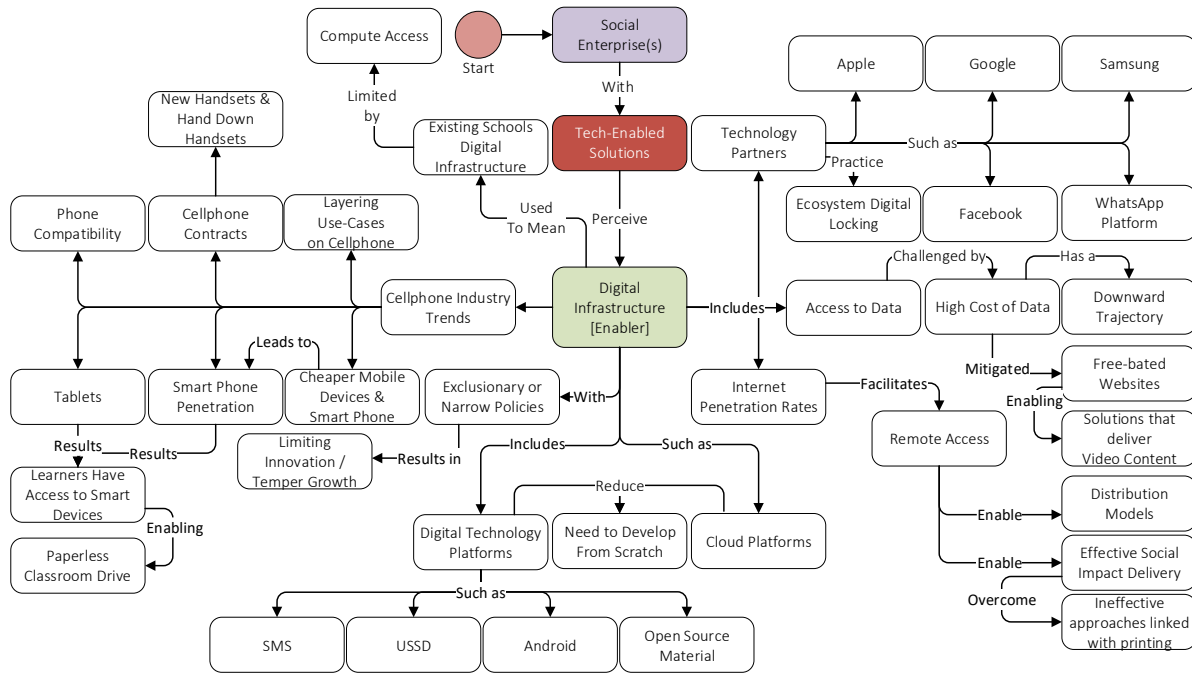


Figure 4—30: Perceptions on Digital Infrastructure - Digital Tech-enabled SE's

Social enterprises with tech-enabled social innovations perceive digital infrastructure to include technology partners like Apple, Google, Samsung, Facebook and WhatsApp that have created platforms on which to deploy tech. The increase in internet penetration facilitates remote access, which in turn enables distributed models and effective social impact delivery, overcoming past inefficiencies. Digital infrastructure also includes access to data, which still has high costs even though it is on a downward trajectory. It is become possible to mitigate data cost for the user by offering free-based websites for social projects. This works well for solutions that need to deliver video content.

Digital Infrastructure includes digital technology platforms such as cloud platforms, which reduce the need to develop from scratch. Other platforms like SMS, USSD, android, and open-source software contribute significantly towards digital infrastructure. Digital infrastructure in the context of school used to mean access being only possible through massive investment in computers.

The cellphone industry trend of cheaper mobile devices & smartphones has led to good smartphone penetration. Paperless classrooms are now possible due to the increased accessibility of devices like smartphones and tablets. Phone compatibility is also on the rise, and termed cellphone contracts result in new handsets continuing to enter the market with older ones being handed down. It is now possible for social entrepreneurs to layer multiple use cases to deliver social impact through the cellphone.

One of the social entrepreneurs advocates against exclusionary or narrowly defined policies that limit innovation and temper growth. Social enterprises without tech-enabled social innovations did not comment on digital infrastructure.

## 4.5.7: Skills, Knowledge and Talent

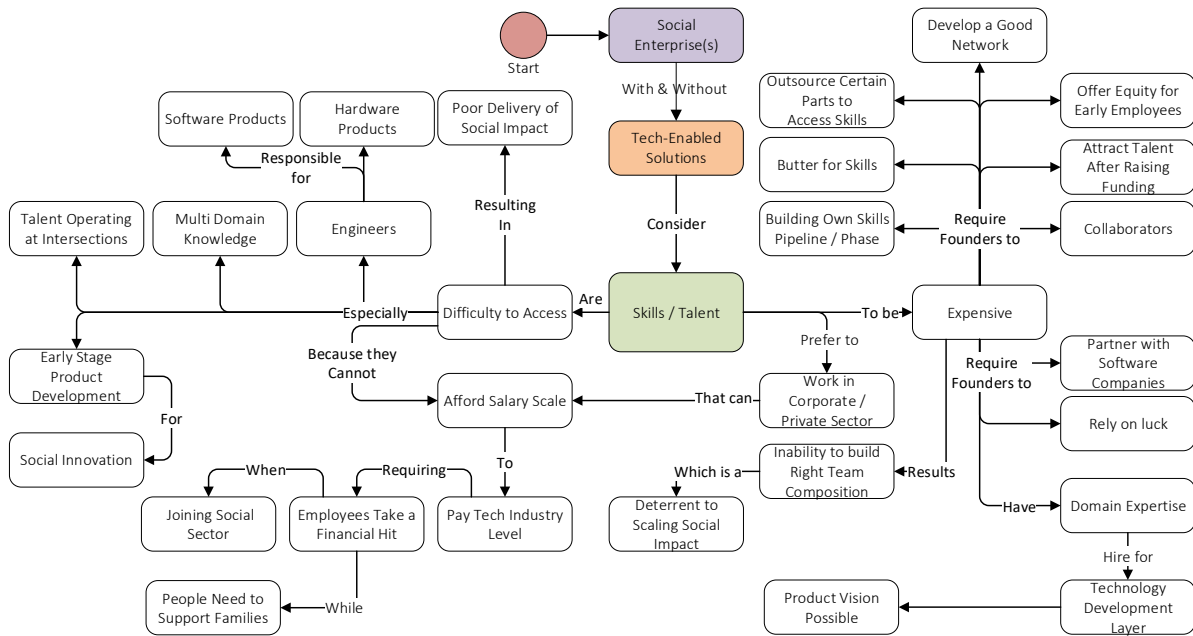


Figure 4—31: Perceptions on Skills and Talent - Digital Tech-enabled SE's

Social enterprises with and without tech-enabled social innovations consider skills and talent to be expensive, resulting in founders needing to find collaborators, build a good network, butter for skills, consider attracting talent after raising funding, outsource certain portions to access the skills and offer equity for early employees. It is also an option to partner with a software company for developing tech-enabled social innovation. One of the founders emphasized the need for the founding team to have deep domain expertise and hire for technology development.

Skilled talent in South Africa prefers to work in the corporate or private sector to gain high salaries. Social enterprises find it difficult to access skilled talent because of affordability, leading to poor delivery of social impact at scale. This affordability constraint results in an inability to build the right team compositions, which later becomes a deterrent to scaling social impact. A social enterprise with a tech-enabled social innovation needs to pay tech industry salary levels instead of requesting employees to take a financial hit as they join the social sector.

These social enterprises are trying to attract engineers who can take on the responsibilities of hardware and software. The type of skilled talent sought out by these social enterprises often need to have multi-domain knowledge and operate at the intersection of industries. The

difficulty in accessing skilled talent also impacts the early stage of product development for social innovation and the later stages of scaling that social impact.

## 4.5.8: Race

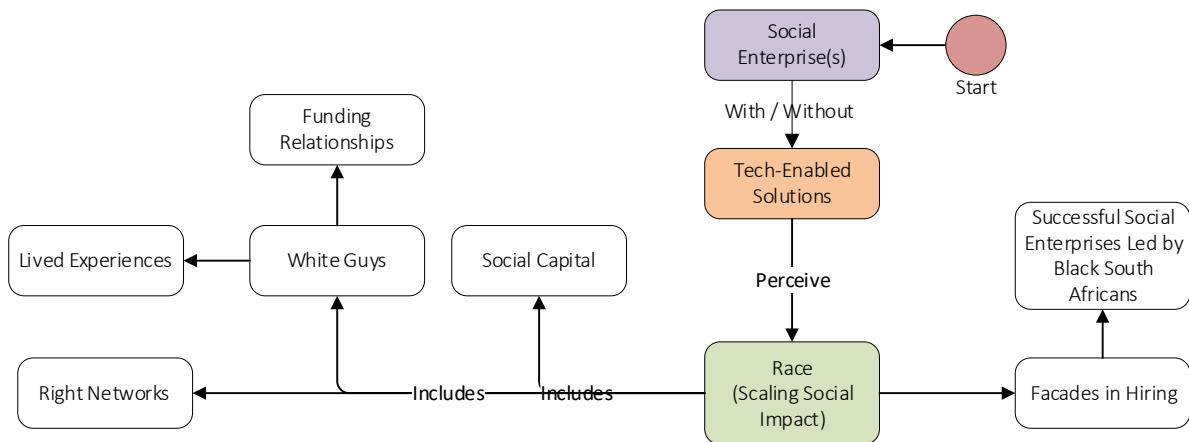


Figure 4—32: Perceptions on Race - Both Case 1 and Case 2

Social enterprises with and without tech-enabled social innovations perceive race to be a factor when considering scaling social impact. Race in the context of South African social enterprises links to social capital with “white guys” having stronger funding relationships as a result of the “right networks”. This is despite not necessarily having had the lived experience of the social issue. The social enterprises also highlight facades in hiring where successful social enterprises are hiring black South African executives without transferring decision-making power.

### 4.6: Key Social Impact Business Model Factors

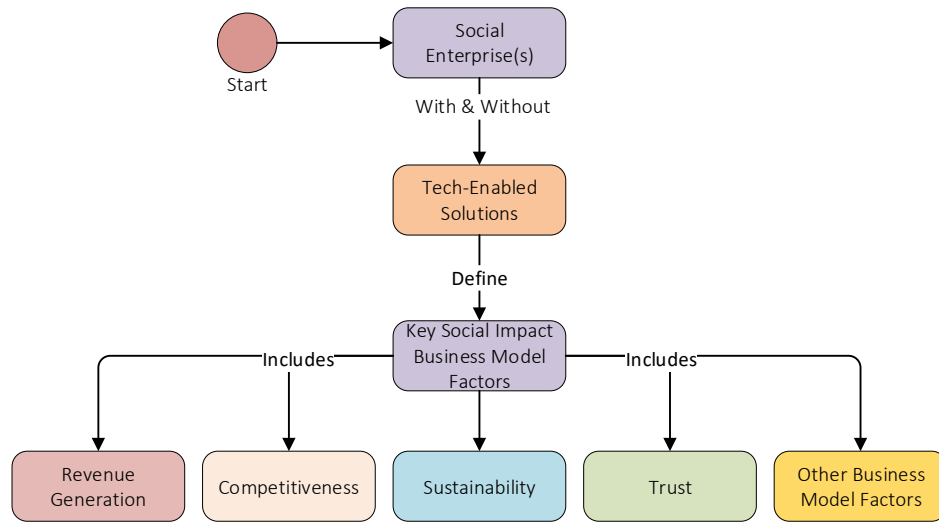


Figure 4—33: Key Social Impact Business Model Factors

Based on the main themes coded from the interviews, critical social business model factors are grouped into five concepts: revenue generation, sustainability, trust, competition, and others. I explore each in more detail in the following sub-sections.

#### 4.6.1: Revenue Generation

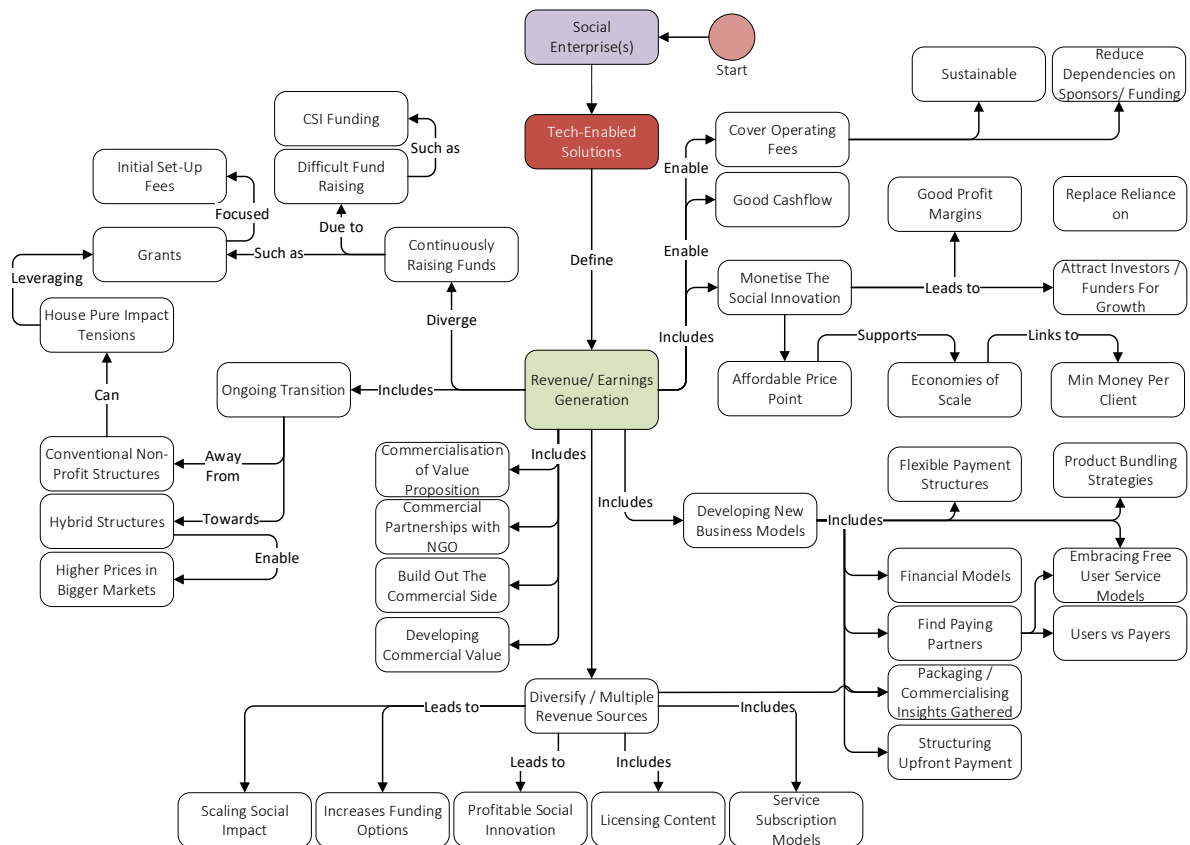


Figure 4—34: Perceptions Revenue Generation - Digital Tech-enabled SE's

Social enterprises with tech-enabled social innovations define revenue generation to include developing new business models, financial models, flexible payment structures, product bundling strategies, commercialization of insights gathered, structuring upfront payments, considering free-to-the-user service models and finding paying partners when users do not pay for the service.

Revenue generation is also tied to monetizing social innovation at an affordable price point to support economies of scale for the lowest cost per client. Revenue enables good cash flow profit margins that ultimately attract investors and funders for growth. It enables the social enterprise to cover operating costs, resulting in sustainability and reduced dependencies on sponsors and funders.

It diverges from continuously raising funds, which has become more difficult due to reducing CSI/CSR Funding. These organisations can still leverage grants for the initial set-up fees while embracing the ongoing transition away from traditional non-profit structures towards hybrid structures. These social enterprises define revenue generation to include commercialization of the value proposition, licensing content, service subscription models, structuring commercial partnerships with partners like NGOs, and diversifying the sources. Revenue diversification leads to increasing funding options and profitable social innovation that ultimately links to scaling social impact.

## 4.6.2: Competitiveness

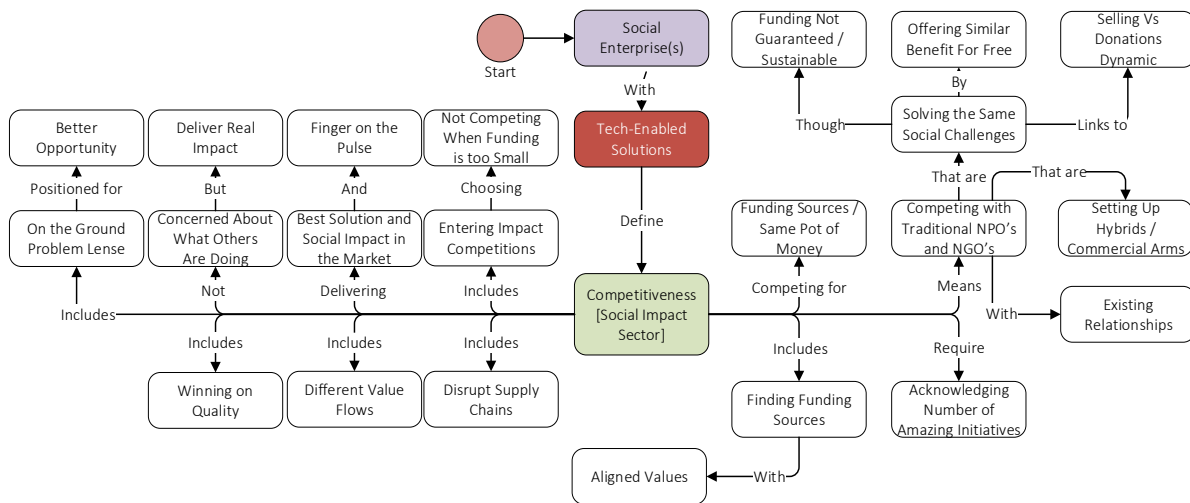


Figure 4—35: Perceptions on Competitiveness - Digital Tech-enabled SE's

Social enterprises with tech-enabled social innovations define Competitiveness to include disrupting supply chains, changing value flows, winning on quality and competing for funding sources in a small pot of money. These organisations recognise and acknowledge the number of amazing initiatives and feel the need to compete with traditional NPOs/NGOs, often solving the same social challenges. These traditional NPOs/NGOs might be offering similar benefits for free, creating a dynamic of donations vs selling social value. The traditional NPOs/NGOs no longer have funding guaranteed any more. To become sustainable, they are also starting to set

up hybrids or commercial divisions. To be competitive, the SEs need to deliver the best social innovation and the best impact, and they need to have their finger on the pulse by being on the ground to position themselves for better opportunities.

### 4.6.3: Sustainability

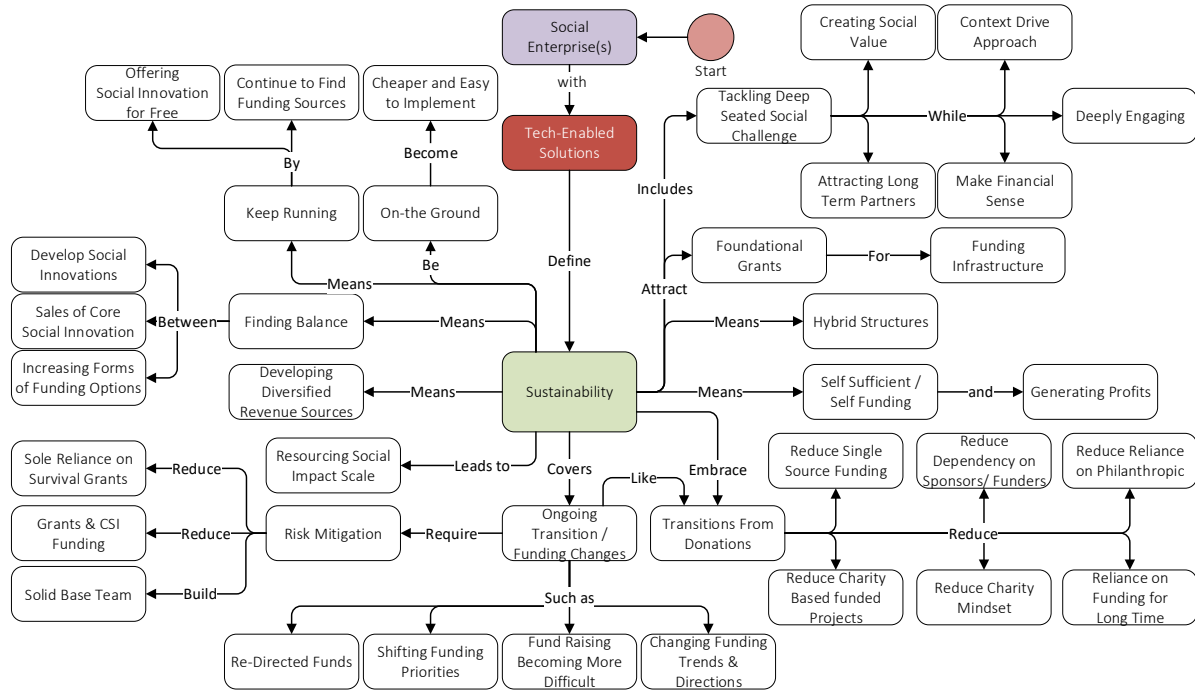


Figure 4—36: Perceptions on Sustainability - Digital Tech-enabled SE's

Social enterprises with tech-enabled social innovations define sustainability as developing diversified revenue sources, choosing hybrid structures, and finding a balance between developing social innovations, sales of those innovations and increasing funding options. These organisations value tackling a deep-seated social challenge by creating social value through a context-driven approach that is deeply engaging, makes financial sense and can attract long-term partners.

Sustainability in a social business model can attract foundational grants to fund the initial infrastructure, but in the long term, it has to enable self-sufficiency from profit generation. In their lens, sustainability is about embracing the transition from donations by reducing single-source funding, reducing dependency on sponsors/funders, reducing charity-based funded projects, and reducing reliance on philanthropy and long-term funding.

The need for sustainability has resulted in an ongoing transition aimed at risk mitigation. Social enterprises are mitigating this risk by reducing reliance on survival grants and corporate grants through CSI/SCR funding. The ongoing transition in the funding landscape is caused by shifting funding priorities, re-directed funds, increasing difficulty in raising funding and general changes in funding trends. Sustainability in a social business model leads enables resourcing for social impact scale.

4.6.4: Trust

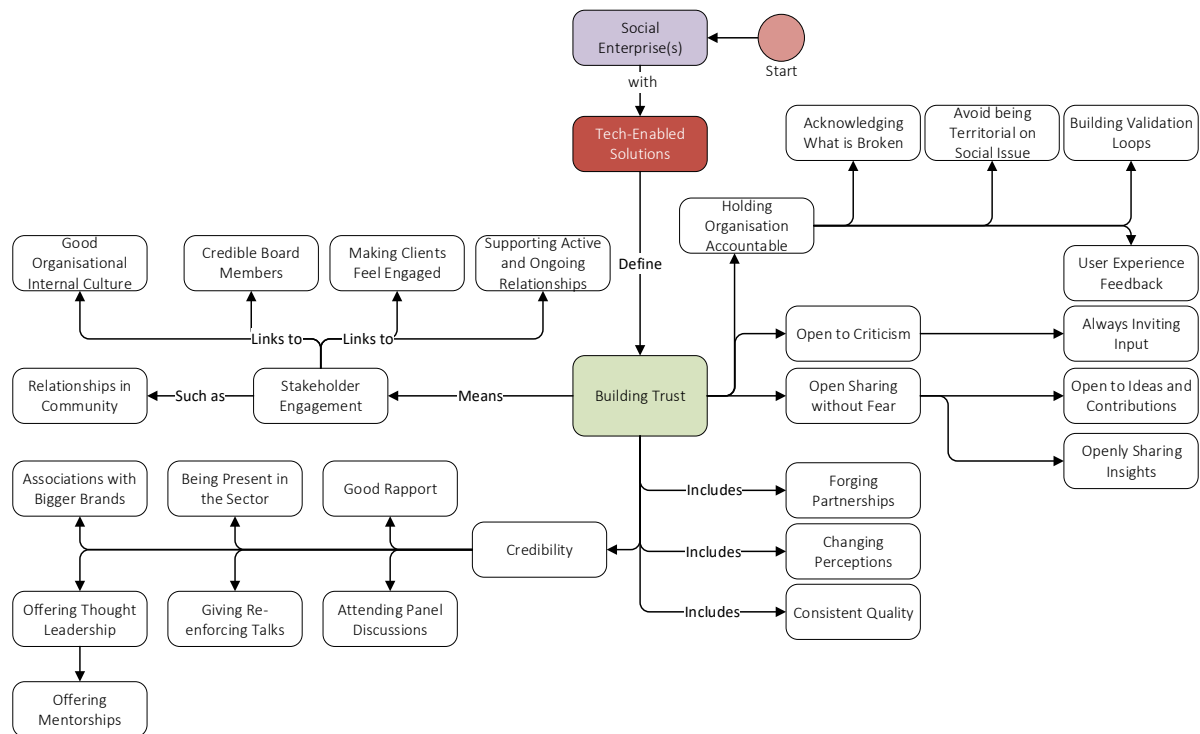


Figure 4—37: Perceptions on Building Trust - Digital Tech-enabled SE's

Social enterprises with tech-enabled social innovations define building trust to mean stakeholder engagement, which links to supporting active and ongoing relationships, making clients feel engaged, building a credible board, designing a good internal organisational culture, and consolidating community relationships. Building trust is also connected to the organisation's credibility, which includes good rapport, being present in sector discussions, attending sector panels, giving reinforcing talks, associating with bigger industry brands, and offering thought leadership.

Building trust includes delivering consistent quality, forging partnerships, and changing perceptions. These organisations also have to be open to criticism, always invite input, remain open to new ideas and openly share insights without fear. They believe in holding organisations accountable, acknowledging what's broken, avoiding being territorial on social issues and building validation loops.

4.6.5: Other Business Model Factors

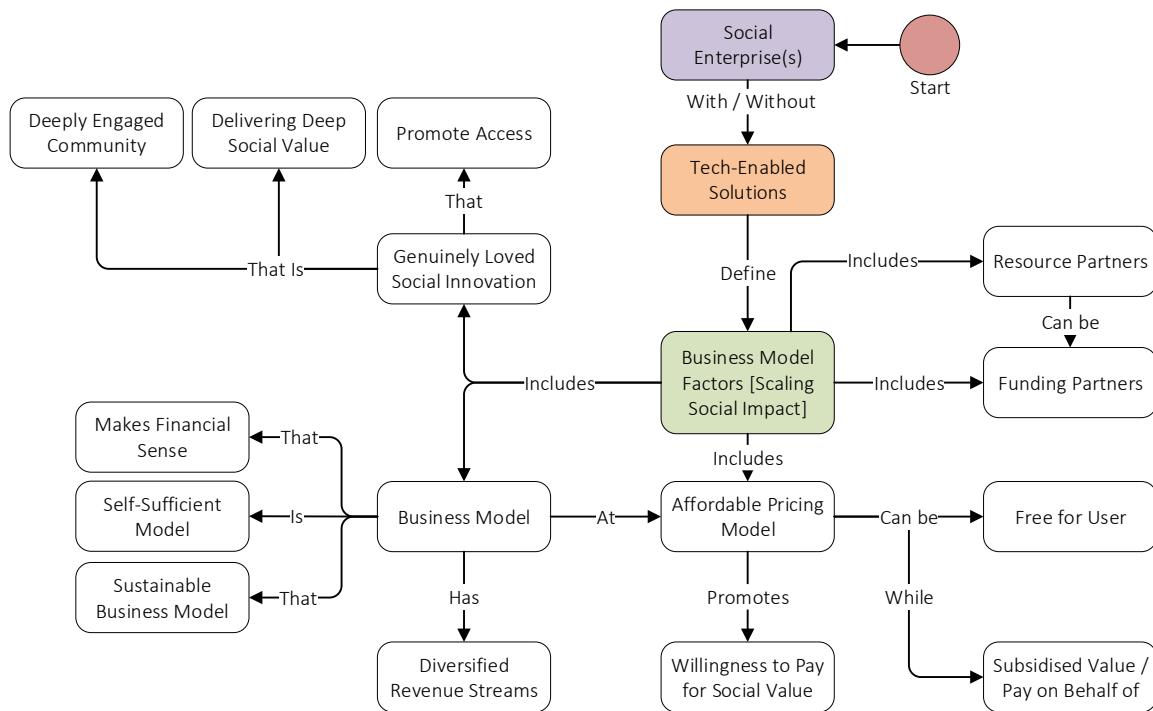


Figure 4—38: Other Business Model Factors – Both Case 1 and Case 2

All Social enterprises in both Case 1 and Case 2 highlighted other business model factors, including resource partners that may be funding partners. They believe that cultivating genuine love for the social innovation that promotes access can be done through deep community engagement and deep social value. The groups feel that the business model needs to make financial sense, and enable the business to become self-sufficient and sustainable with diversified revenue streams. Another important factor is affordable pricing models, which can include free-for-user approaches while finding partners willing to pay for the social value on behalf of the users. I combined the sentiments for this theme as each case did not have any unique contributions to make. As a result, when I outline findings on key social Impact business factors in Case 2 (5.6), I will only outline findings on revenue generation, competitiveness, sustainability and trust without adding any comments on other business model factors.

### 4.7: Digital Technology Scaling Factors

In this section, I explore ten digital technology scaling factors emerging from social enterprise with tech-enabled social innovations. The first is perceptions on the contribution of digital technology in their social venture. I then explore how using digital technologies increases options, introduces new possibilities, enables efficiencies, and provides flexibility. I later shifted attention to the interplay between digital technologies and the people for whom they're meant to create value. For the remainder of the section, I explore concepts of virality and ease of replication, a willingness to embrace digital technology, differing degrees of digital innovations and how digital technologies may affect the execution of delivering social impact. I wrap up the section and the case by consolidating comments on the social impact of digital technologies.

#### 4.7.1: Perceptions on Digital Technologies

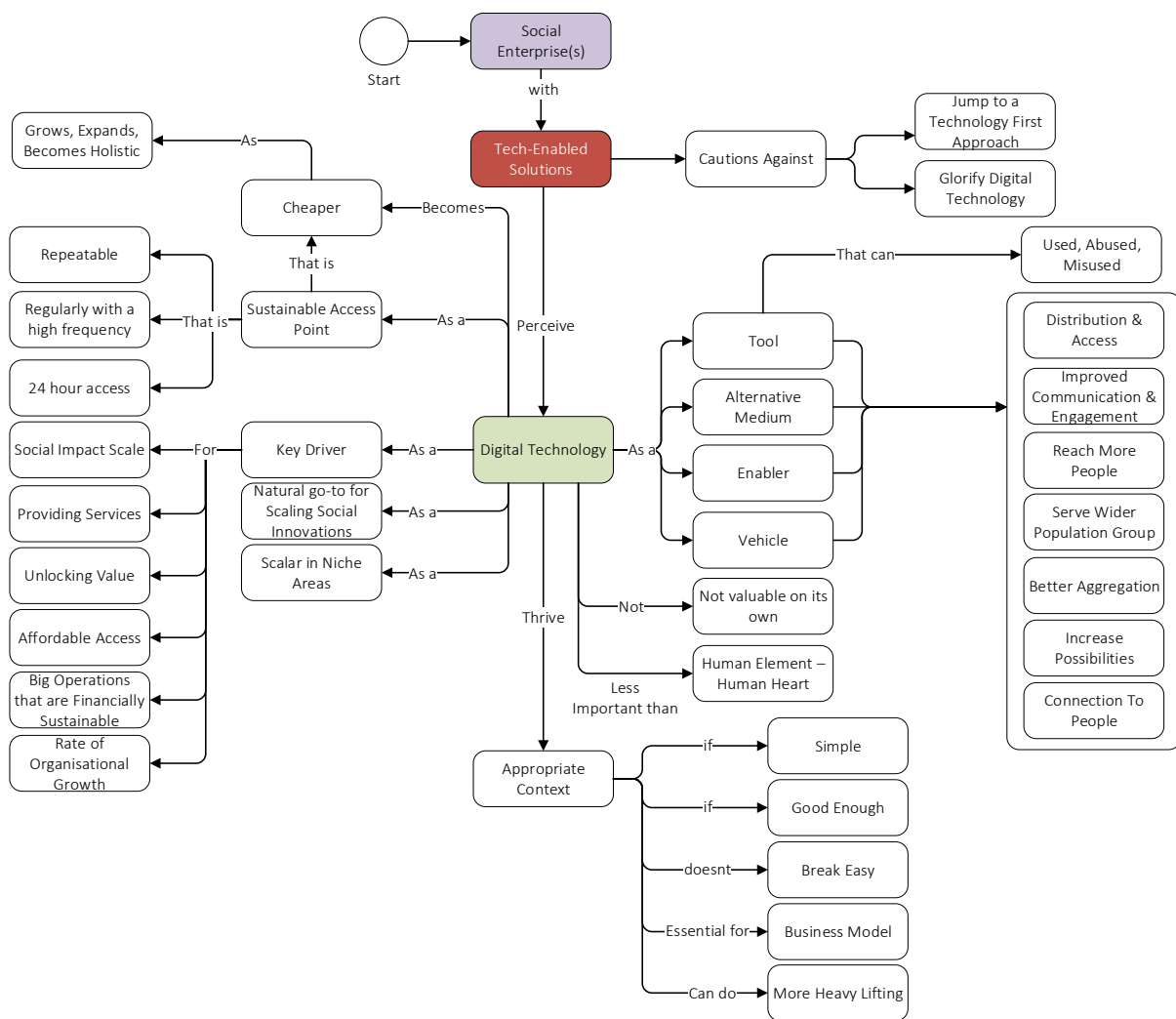


Figure 4—39: Perceptions on Digital Technology - Digital Tech-enabled SE's

Social enterprises with tech-enabled social innovations perceive Digital Technology in the context of scaling social impact as a tool, an enabler, a vehicle and an alternative medium. It can be leveraged for distribution, access, improved communication, engagement, reach more people, serve wider population groups, provide better aggregation, connect people better, and

leading to increased possibilities. It is not valuable on its own, and it is less important than the human element or the human heart. Digital Technology can be used, abused or misused. These social enterprises also caution against glorifying digital technologies and a technology-first approach.

Digital Technology thrives in an appropriate context if it is simple and good enough, does not break easily, does more heavy lifting and is essential for the business model. Digital technology enables sustainable access points that are repeatable and can be reached 24 hours with high regular frequency. The sustainable access point leads to cheaper operations as social innovation grows and scales.

Digital Technologies are the natural go-to for scaling social innovation and work as a scaler in niche areas. Digital Technology is a key driver for social impact at scale, for providing services, for unlocking value, for affordable access, for big operations that need to be financially sustainable, and for a high rate of organisational growth.

## 4.7.2: Increased Options & New Possibilities

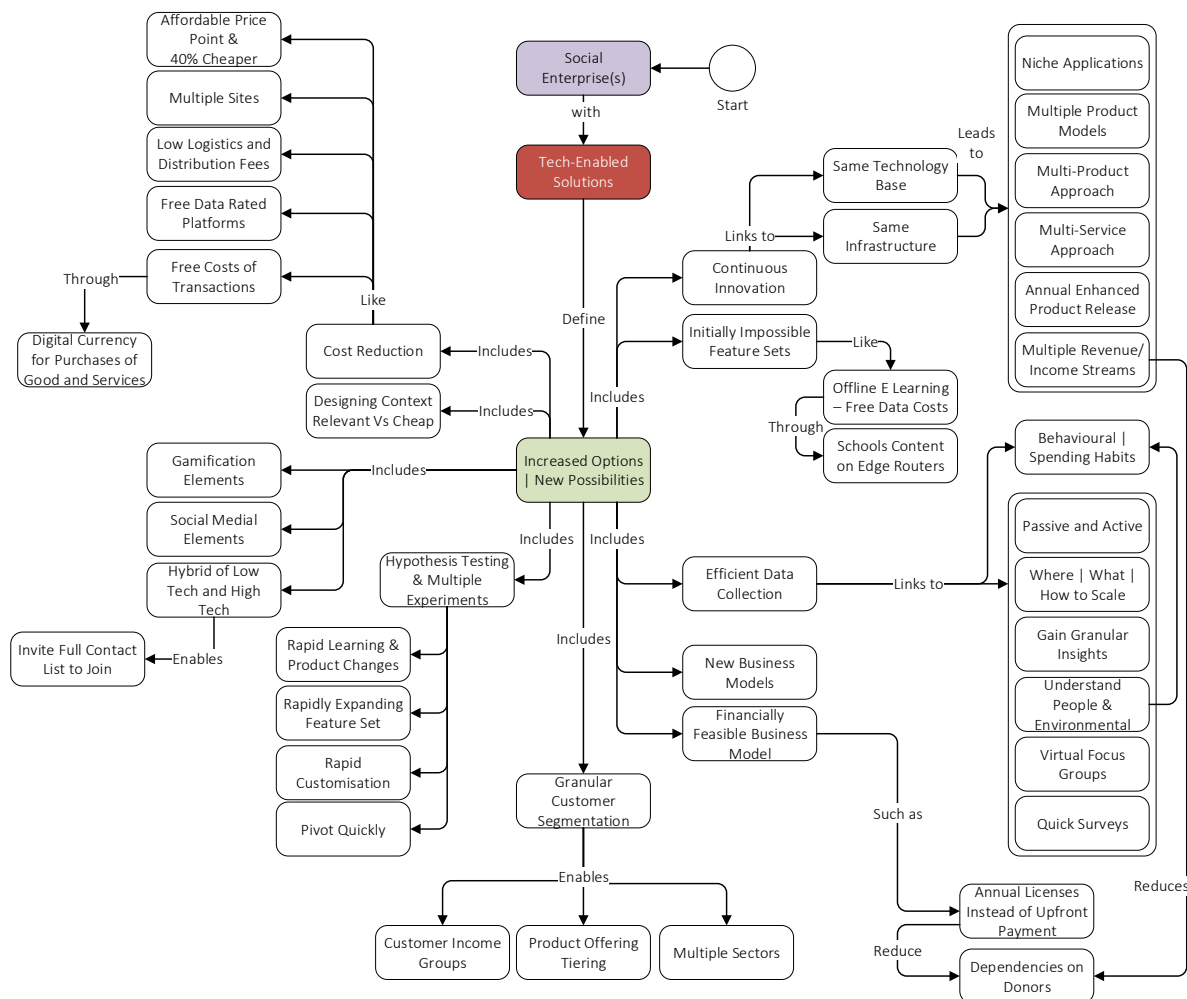


Figure 4—40: Perceptions on new possibilities & increased options - Digital Tech-enabled SE's

Social enterprises with tech-enabled social innovations define increased options made possible by leveraging digital technology to include efficient data collection. Efficient collection links to the ability to collect data passively and actively, knowing where, what and how to scale, gaining granular insights, understanding people and their environment better, doing quick surveys and offering virtual focus groups. Efficient data collection also means organisations can see behavioural and spending habits.

Leveraging the digital tech approach leads to new business models and the ability to offer initially impossible feature sets, such as Offline e-learning with no data costs through school content hosted on edge routers. It becomes possible to implement continuous innovation using the same technology base and the same infrastructure. This approach can lead to do niche applications, multiple product models, multi-product approaches, multi-service approaches, annually enhanced product releases and ultimately multiple revenue and income streams.

A Digital Tech approach enables granular customer segmentation, which enables product offering tiers, customer income grouping and clarity on multiple sectors through extensive data. Additionally, these social enterprises are able to perform hypothesis testing through multiple experiments. This then leads to rapid learning and product changes, rapid expansion of features, rapid customisation and the ability to pivot quickly.

A digital tech approach also enables social enterprises to incorporate gamification elements and social media elements and offer both low tech and high-tech elements, enabling beneficiaries to invite their full contact list to join the service. Through a digital tech approach, it becomes possible to design for context relevance while being cheap and cost-effective. Lower cost means affordable price points that can be 40% cheaper, operate multiple, low logistics and distribution fees, free data rates platforms, and possibly free transaction costs through digital currency integration.

4.7.3: Efficiency & Flexibility

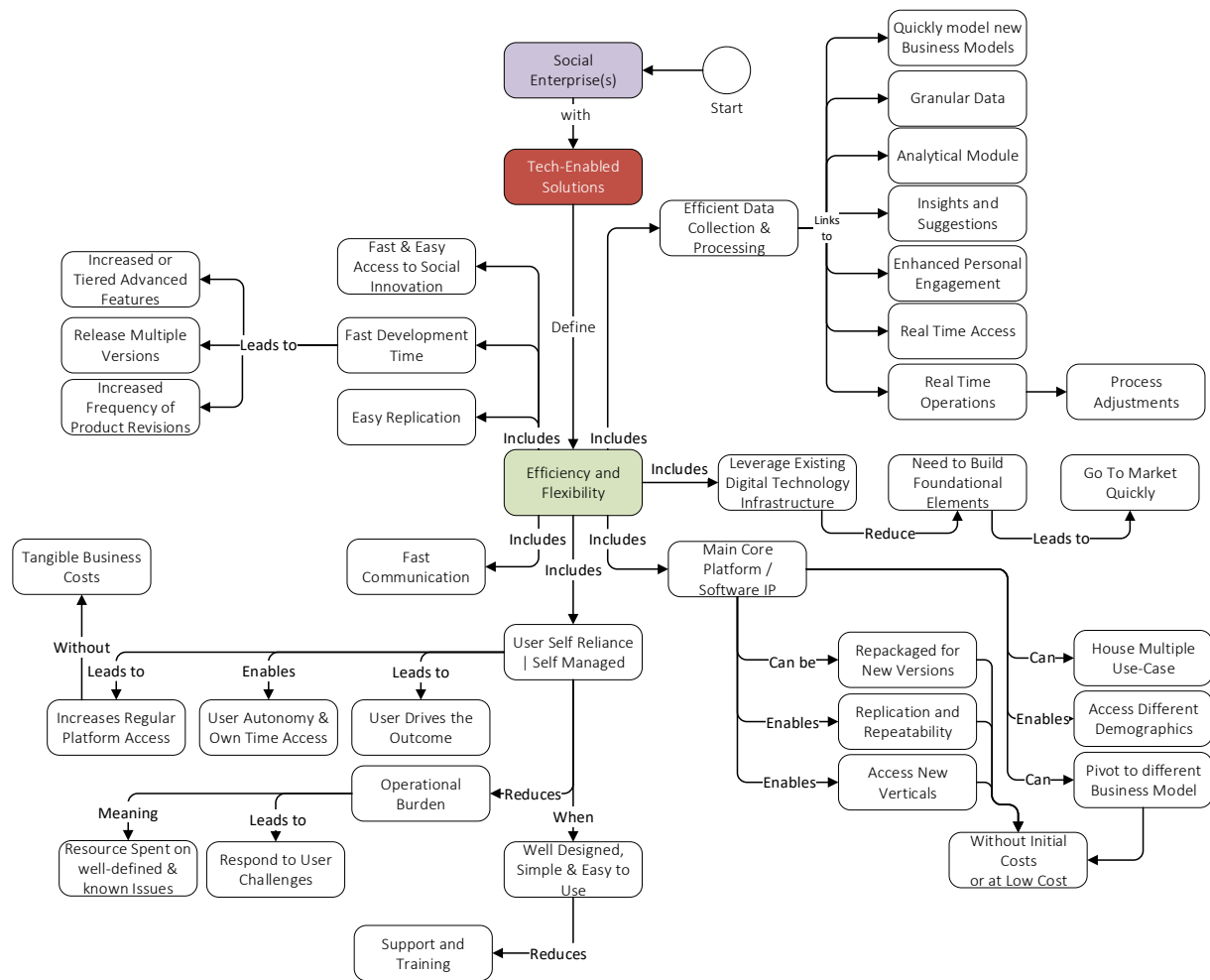


Figure 4—41: Perceptions on Efficiency and Flexibility - Digital Tech-enabled SE's

Social enterprises with tech-enabled social innovations define increased efficiency and flexibility made possible by leveraging digital technology approach to include fast & easy access to social innovation for users, easy replication, fast communication and fast development time. Fast development time can lead to increased features, multi-version releases, and increased frequency of product versions.

Efficiency also manifests as self-managed or user Self-reliance, which leads to users driving the outcomes, user autonomy and the ability to access the social innovation on their own time, and increased regular access to the platform without tangible business costs. Self-managed or User self-reliance reduces the operational burden, meaning that the organisation can only focus on responding to user challenges, and resources are spent on well-defined and known issues. When self-managed systems are well-designed, simple and easy to use, they result in reduced support and training costs.

Efficiency from a digital tech approach also means that the main core platform or source IP can be packaged for new applications, enables replication and repeatability, and enables access to

new verticals without significant costs. Additionally main core platform can house multiple use cases, enables access to different demographics and positions the social enterprise to pivot to different business models without significant costs.

It is also efficient to leverage the existing digital technology infrastructure to reduce the need to build foundational elements, resulting in a quicker go-to-market. A digital tech approach results in efficient data collection and processing, which links to the ability to quickly model new business models, access to granular data, insights and suggestions, a built-in analytical module, enhanced personal engagement, real-time access, real-time operations and process adjustment.

## 4.7.4: People-Technology Interplay

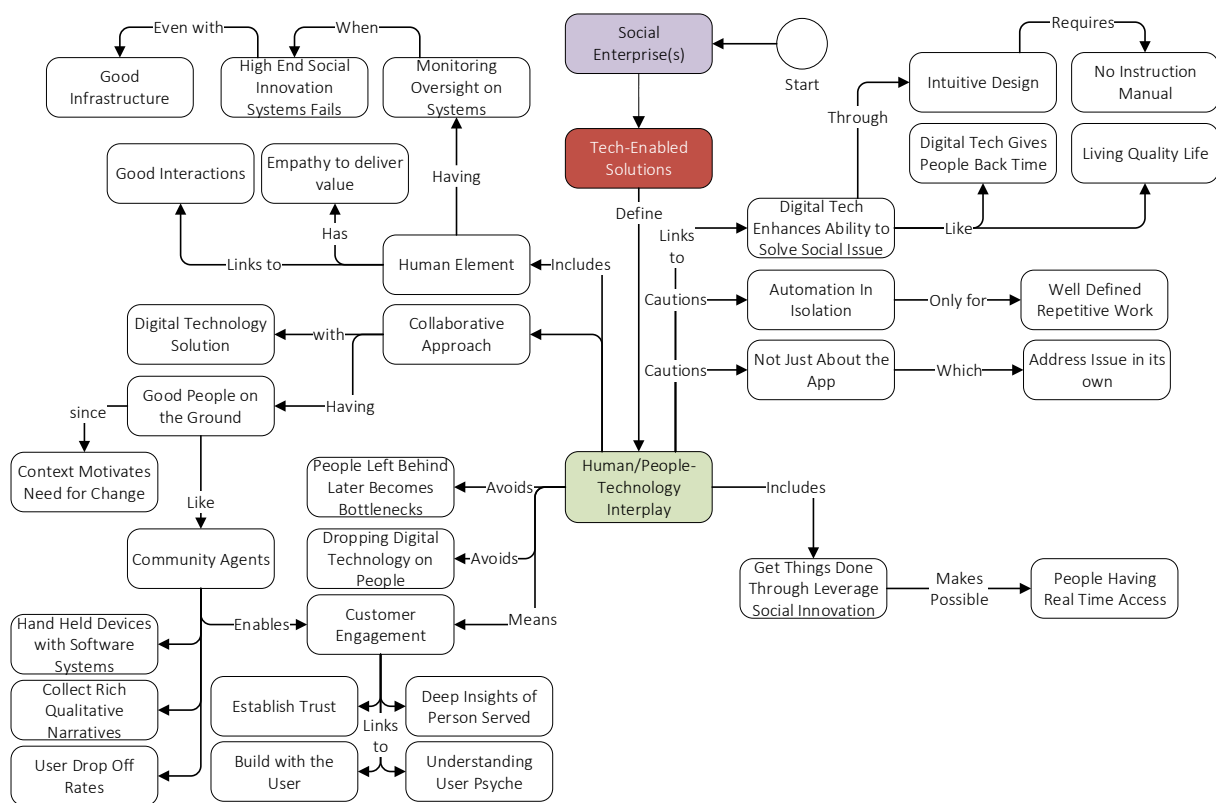


Figure 4—42: Perceptions on People and Technology Interplay - Digital Tech-enabled SEs

Social enterprises with tech-enabled social innovations define Human/People-Technology Interplay to include the possibility for people to have real-time access. It links to digital tech enhancing the ability to solve a social issue by giving people time back or helping them live a quality life. People-technology interplay is possible through intuitive design that ultimately requires no instruction manuals when built well.

These social entrepreneurs caution that it is not just about building an app hoping that it will address the social issue on its own; It is not about automation in isolation. They advocate for avoiding dropping digital technology on people, avoiding leaving people behind to become the

bottleneck, and rather promoting engagement by establishing trust, building with the user, understanding the user psyche, and leveraging deep insights of the person being served.

The People-Technology interplay includes the human element that enables empathy to deliver value and promote good interactions. It is the human element that should have monitoring oversight on systems, especially given that high-end social innovation systems fail to deliver value even with good infrastructure. The People-Technology Interplay is centered on a collaborative approach between digital technology solutions and having people on the ground leveraging context that motivates the need for change. To achieve this, one of the social enterprises deploys community agents with handheld devices for customer engagement to collect rich qualitative narratives and get a handle on user drop-off rates.

## 4.7.5: Virality and Replication

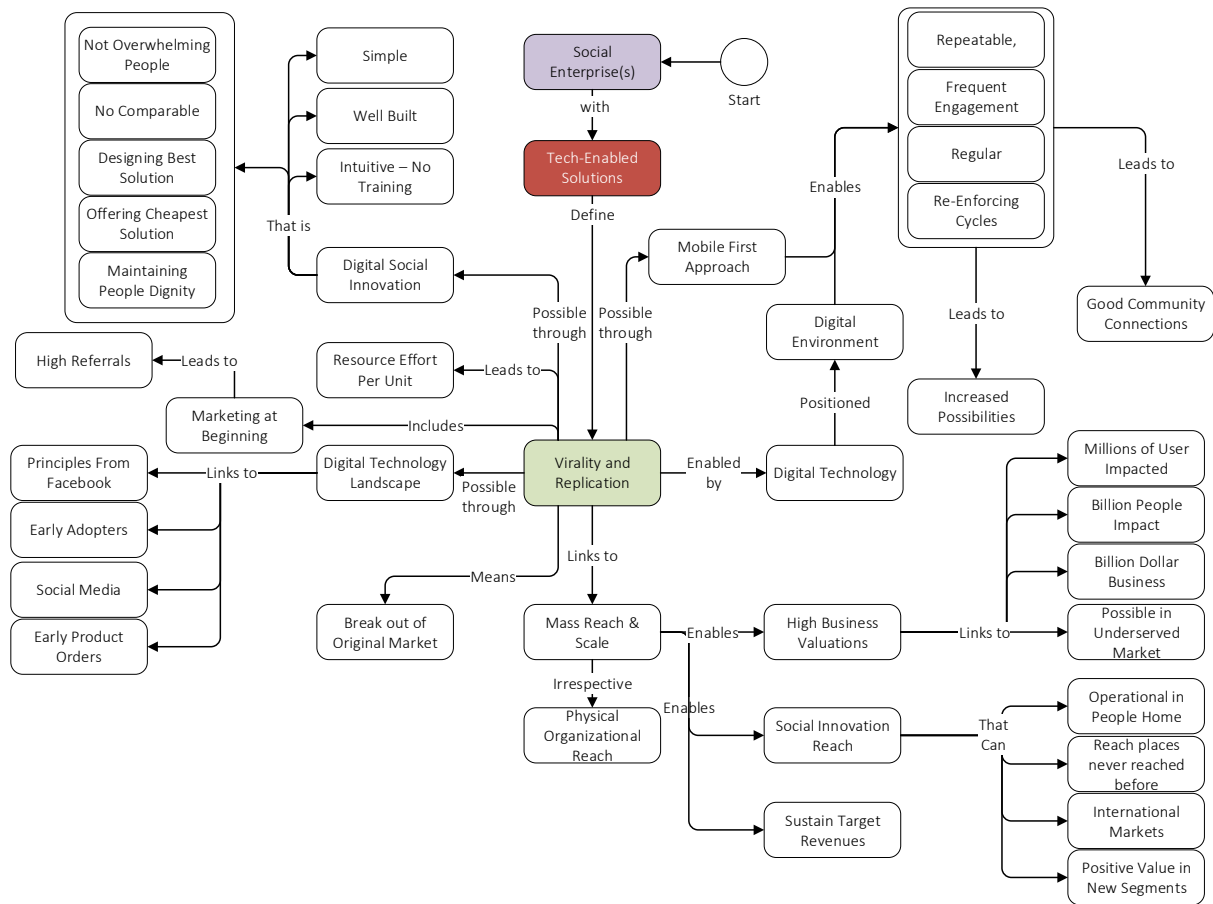


Figure 4—43: Perceptions on Virality and Replication - Digital Tech-enabled SE's

Social enterprises with tech-enabled social innovations define Virality & Replication to be possible when leveraging a digital technology approach positioned well in a digital environment. Virality & replication are possible when digital social innovations are simple, well-built, intuitive, require no training, do not overwhelm people, are well-designed, cheap and maintain people's dignity. Virality & replication is also possible through a mobile-first approach,

which enables repeatability, frequent engagement, regular access and reinforcing cycles. These all combine to further lead to good community connections.

Replication leads to a lower resource effort per unit when pushing for mass reach and scale, irrespective of the physical organisation's reach. Virality and good replication are also tied to sustained target revenues and high business valuations when millions/billions of users' lives are impacted in an underserved market. Virality & replication mean that social innovations reach people in their homes, reach places never reached before, and reach international markets to create positive value in new segments. Virality & Replication are possible in a digital technology landscape of early adopters, early product orders, social media and borrowing design principles from tech giants like Facebook.

## 4.7.6: Willingness to Embrace

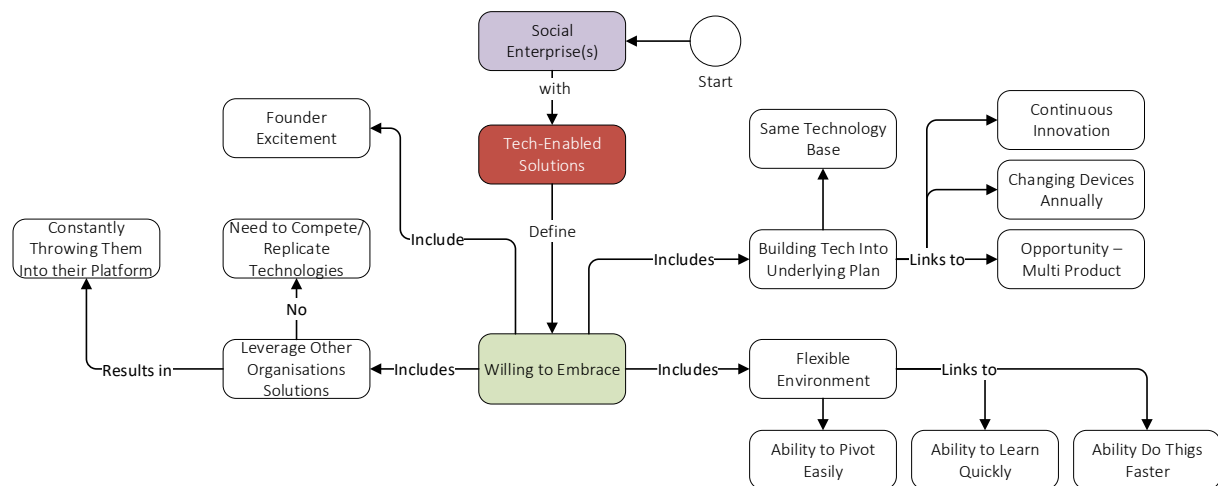


Figure 4—44: Perceptions on Willingness to Embrace - Digital Tech-enabled SE's

Social enterprises with tech-enabled social innovations define the willingness to embrace a digital tech approach to include the founder's excitement, building tech into the underlying business plan with considerations for the technology base, continuous innovation and opportunities for multi-product strategies. Willingness to embrace includes an attraction to a flexible environment with the ability to pivot easily, learn quickly and do things faster. The founders also highlight the ability to leverage other organisations' solutions and keep adopting elements that work into their platform to remain competitive and ensure their technology can replicate well.

4.7.7: Degrees of Digital Innovation

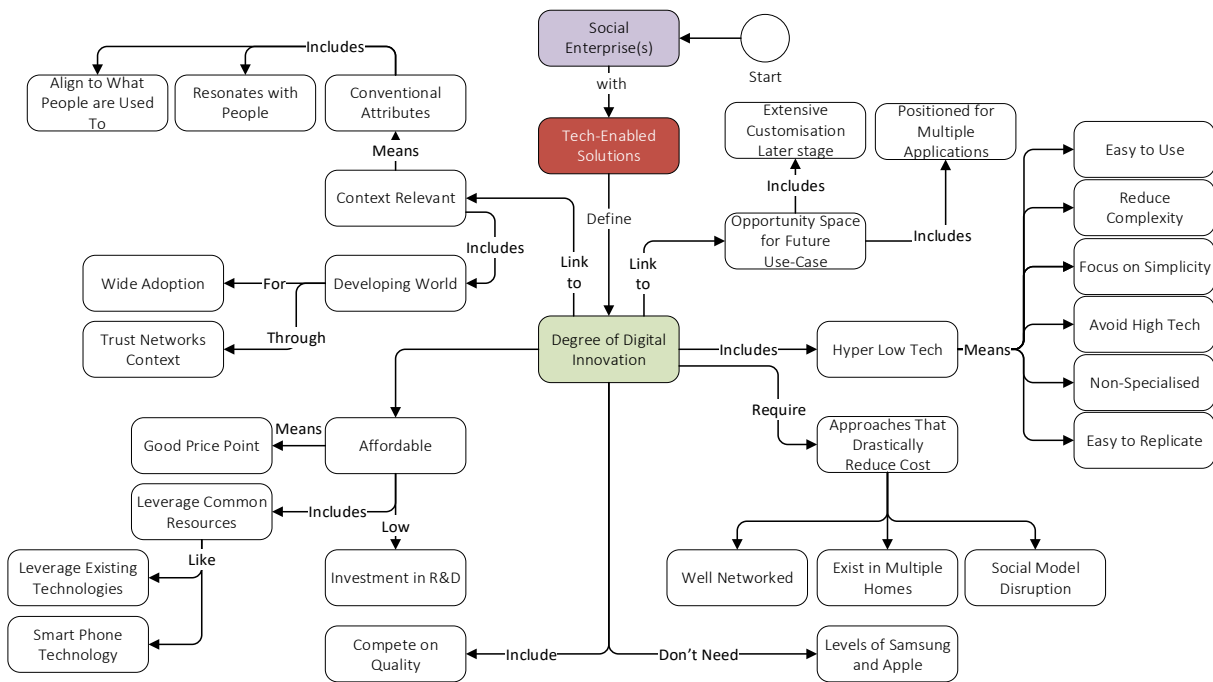


Figure 4—45: Perceptions on Degrees of Digital Innovation - Digital Tech-enabled SE's

Social enterprises with tech-enabled social innovations define degrees to include hyper-low technologies that are easy to use, reduce complexity, focus on simplicity, avoid high tech, are non-specialised and easy to replicate. These founders view low degrees of digital innovation at the starting phase as an opportunity space for future use cases that can offer extensive customisation at a later stage and position for multiple applications.

Lower degrees of digital innovation drastically reduce costs while providing disruptive social models that can compete on quality without needing to operate at the same levels as Samsung and Apple. Lower degrees of digital innovations are affordable, meaning good price points, lower investment in R&D and the ability to leverage common resources like existing technologies and smartphone technology as a backbone. The chosen degree of digital innovation has to be context-relevant for the developing world that emphasise wider adoptions through trust networks. Context relevance also means paying attention to conventional attributes that resonate with people and align with what people are used to.

4.7.8: Execution Difference

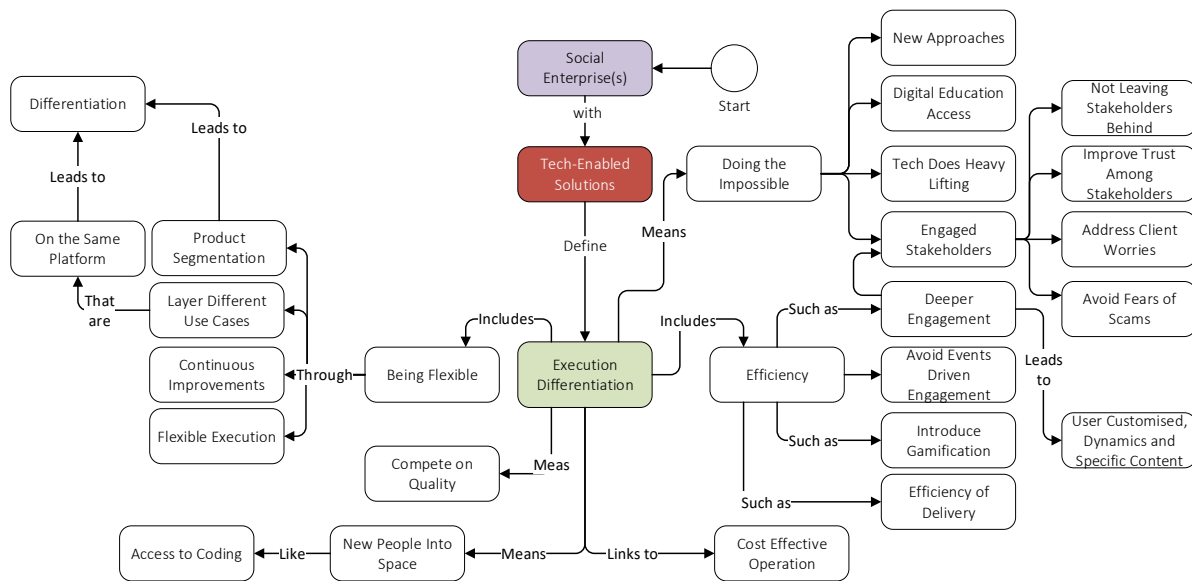


Figure 4—46: Perceptions on Execution Difference - Digital Tech-enabled SE's

Social enterprises with tech-enabled social innovations are able to execute their social impact differently from those without tech-enabled social innovation. This difference in execution includes a higher level of efficiency in delivery, the introduction of gamification elements, avoiding event-driven engagement, and implementing deeper engagement that enables user-customised, dynamic and specific content delivery. Additionally, the execution difference can be represented through quality, cost-effective operation and the ability to introduce new communities into a new space, such as access to coding.

The tech-enabled approach enables these social enterprises to execute in a way that was considered impossible through new approaches, through digital education access, by allowing tech to do the heavy lifting, and tech to assist in engaging stakeholders. Engaged stakeholders are possible when no stakeholder is left behind, improve stakeholder trust, address client worries, and avoid fears of scammers.

The tech-enabled approach enables these social enterprises to execute in a manner that provides them with more flexibility through iterative, continuous improvements, layering different use cases and product segmentation, which leads to differentiation.

4.7.9: Changes through Digital Technologies

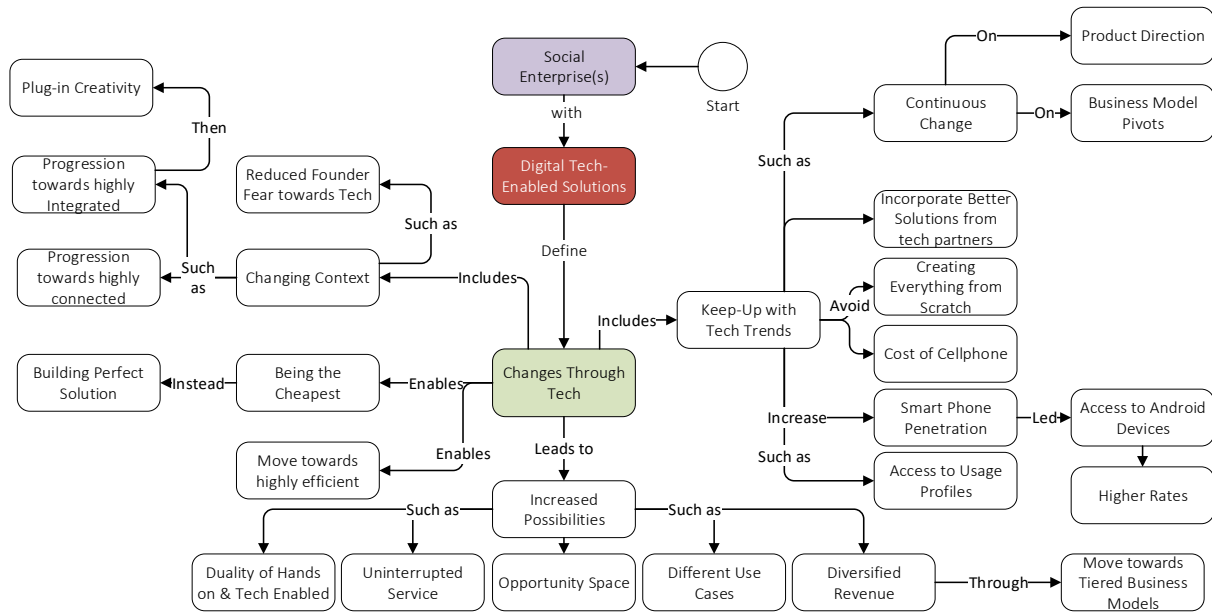


Figure 4—47: Perceptions on Changes through Tech - Digital Tech-enabled SE's

Social enterprises with tech-enabled social innovations define changes through tech, including the need to keep up with tech trends. Some of the tech trends include increased smartphone penetration led by access to Android devices, the need for usage profile data, reducing the cost of cellphones, the need to incorporate better solutions from tech partners, avoiding creating everything from scratch and driving for continuous change linked to product direction and business model.

Changes through tech adoption also lead to increasing possibilities, such as the duality of hands-on and tech-enabled delivery, uninterrupted service, new opportunity space, different use cases and diversified revenue when moving to a tiered business model. Changes through tech adoption positions enable these businesses to be the cheapest instead of building the most perfect solutions. The overall changing context reduces founders' fear towards tech adoption and represents a progression towards highly connected and highly integrated solutions.

4.7.10: The Social Impact of Digital Technologies

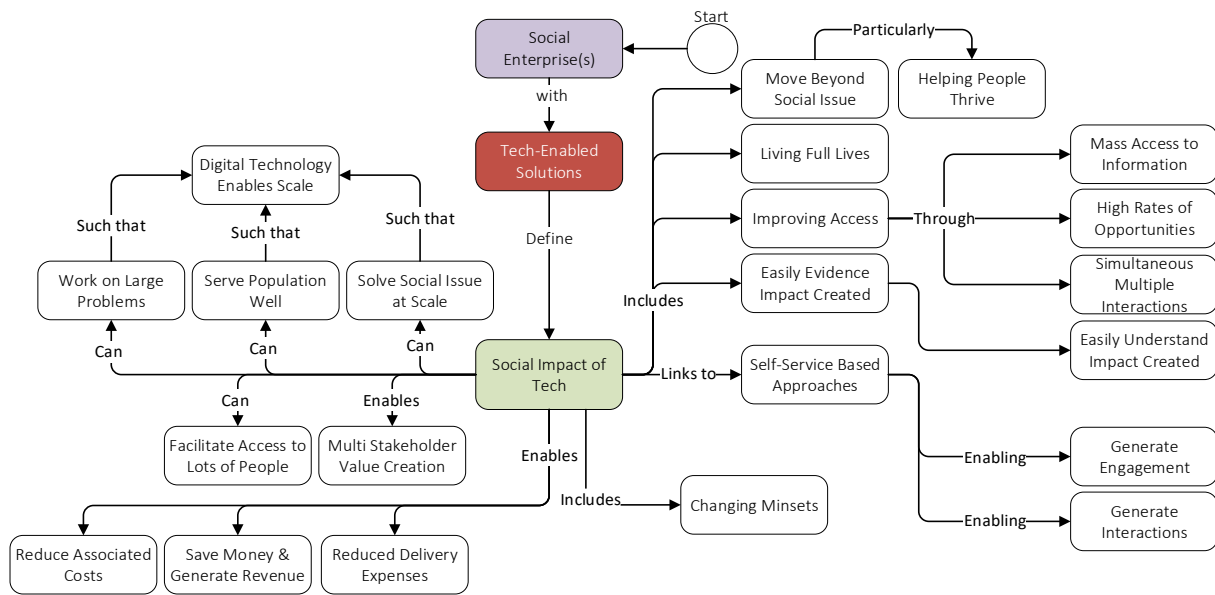


Figure 4—48: Perceptions on Social Impact of Tech - Digital Tech-enabled SEs

Social enterprises with tech-enabled social innovations emphasise the digital tech approach enables social impact through its ability to change mindsets, solve social issues at scale, serve the population well, work on large problems, facilitate access for lots of people and multi-stakeholder value creation. The digital tech approach also has the ability to reduce associated costs, save money, generate revenue, and reduce delivery expenses. Through the self-service-based approaches, social enterprises are able to generate cost-effective engagement, generate multiple interactions and easily evidence impact created and understood.

Additionally, the digital tech approach enables social impact through its ability to improve access through mass information access, simultaneous multiple interactions and an increase in new opportunities. People can live full lives and move beyond social issues towards a position where they can thrive.

4.8: Summary of Descriptive Case Study 1 - Social Enterprises Scaling Impact through Digital Technology

In this chapter, I presented findings in the form of an embedded case study (Case 1) to provide a detailed description on scaling strategies for social enterprises leveraging a digital technology as a means of delivering social impact. The chapter opened with outlining the profiles of the 13 social enterprises that formed part of Case 1, after which I explored organisational factors that influence scaling based on the participants views. I then reviewed which scaling models’ social enterprises chose and their views on those models, how organisations within the case developed their scaling strategies and key environmental factors they deem to be important for scaling social impact. In the middle, I go over critical social business model factors such as revenue generation, competitiveness, sustainability, trust and other business model factors. The chapter closes by refocusing on digital scaling factors emergent from social enterprise with tech-enabled social innovations

## Chapter 5: Descriptive Case Study 2 - Social Enterprises Scaling Impact without Digital Technology

In Chapter 5, I present findings in the form of an embedded case study (Case 2) to provide a detailed description on scaling strategies for social enterprises scaling their social impact without the use of digital technology as a means of delivering social impact.

### 5.1: The Social Entrepreneurs

In this subsection, I provide a summarized view of the eight social enterprises that formed part of Case 2. The provided description is written out to avoid compromising confidentiality afforded to the participants (extended to the organisation) while still being detailed enough to provide the reader with sufficient detail.

Impact Area	Housing and Infrastructure	SE	SE_Non_Tech_001
Social Innovation		Impact Model/ Social Benefit Model	
Replace informal backyard shacks with affordable, sustainable housing using innovative building technology.		<ul style="list-style-type: none"> <li>• Reduce the number of people living in informal and unsafe shack structures without electricity or running water.</li> <li>• Provide affordable and sustainable housing options constructed from natural soil and recycled construction waste.</li> <li>• Identifies low-income households that have backyard shacks in low-income communities</li> <li>• Fund the replacement by building formal backroom structures with an initial cost capital recovery model from a percentage of the rental fees. This ultimately benefits both the social venture and homeowners.</li> <li>• The initial investment is recouped over 18-36 months by collecting a percentage of the rental income from the tenants of the new structure.</li> <li>• Assist low-income households that cannot get access to traditional home improvement financing.</li> <li>• Train, up-skills and employs women and youth for interlocking brick manufacturing and sustainable building methods.</li> <li>• Use recycled builders' rubble to manufacture bricks for a positive environmental impact.</li> </ul>	

Impact Area	Education – Extracurricular or out of School Activities	SE	SE_Non_Tech_002
Social Innovation		Impact Model/ Social Benefit Model	
An after-school academic and personality development program for kids in basic education.		<ul style="list-style-type: none"> <li>• Created a safe and convenient space for kids to come to daily after school to be assisted with their schoolwork</li> <li>• Expose kids to technology, recycling, gardening and financial management</li> <li>• Help kids develop confidence in themselves and their abilities.</li> </ul>	

Impact Area	Waste Management	SE	SE_Non_Tech_003
Social Innovation		Impact Model/ Social Benefit Model	
An interactive mobile billboard that promotes engagement with the audiences of brands. The billboards are on kitted-out waste pickers and trolleys operated by informal waste pickers in nice uniforms.		<ul style="list-style-type: none"> <li>• Works with informal waste pickers and provides them with safer, more durable waste trolleys and dignified uniforms.</li> <li>• The more dignified they look, the more people call them into their homes and businesses to collect more valuable waste.</li> <li>• Ensures that a higher volume of waste is collected using safer means of collection to increase profitability for waste pickers.</li> <li>• Waste trolleys have better safety features to reduce the number of road accidents involving waste pickers.</li> <li>• Waste pickers participate in a profit-sharing model for advertising proceeds. This is extra money in addition to selling their waste.</li> <li>• Provide skills training for waste pickers on running these as businesses that make money.</li> </ul>	

Impact Area	Agriculture – Seed	SE	SE_Non_Tech_004
Social Innovation		Impact Model/ Social Benefit Model	
Easy and convenient veggie garden boxes for communities who do not have sufficient space to grow their own vegetables.		<ul style="list-style-type: none"> <li>• Basic food nutrition to the people who need it the most while fostering the development of sustainable and eco-friendly practices</li> <li>• Help families that want to teach their children the importance of eating locally-grown vegetables.</li> <li>• Veggie boxes are sold on a 2-for-1 model. This means that for every two boxes sold</li> </ul>	

	– one will be sponsored to a disadvantaged household. The veggie boxes are also distributed to beneficiaries through CSI funds.
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Impact Area	Access to Creative Arts	SE	SE_Non_Tech_005
Social Innovation		Impact Model/ Social Benefit Model	
Workshops – Skills development focused on Creative Arts		<ul style="list-style-type: none"> <li>• Access to creative skills, creative thinking for low-income communities</li> <li>• Future employment and entrepreneurial options in the creative arts for at-risk kids</li> <li>• Mentorship matching professional designers with young kids</li> <li>• Designers and Kids collaborate in workshops to create artwork that can be sold or licensed</li> <li>• Develop young ambassadors who have creative potential to become community leaders and inspire others</li> <li>• Ambassadors develop portfolios to attract bursaries to attend programs in creative schools/colleges</li> </ul>	

Impact Area	Economic Growth and Trade – Entrepreneurship	Founder	SE_Non_Tech_006
Social Innovation		Impact Model/ Social Benefit Model	
The entrepreneurship development programme equips tradespeople from low-income communities with the skills they need to grow a successful business and connects them to clients. Match skilled tradesmen from low-income areas, with homeowners and businesses undertaking renovation and construction projects.		<ul style="list-style-type: none"> <li>• Secure leads for tradespeople in middle-class markets that they would not access on their own.</li> <li>• Create opportunities for hard-working individuals marginalised because of lack of resources, business acumen or contacts.</li> <li>• Introduce competitively priced, competent tradesmen.</li> <li>• Participate in the company’s year-long development programme through e-learning, workshops and coaching.</li> <li>• Build trust between high LSM customers and people from communities that can provide that service.</li> </ul>	

Impact Area	2.01 Access to Affordable Water	SE	SE_Non_Tech_007
Social Innovation		Impact Model/ Social Benefit Model	
Low Power - Membrane-Based Water Filter		<ul style="list-style-type: none"> <li>• Access to safe drinking water in low-income communities</li> <li>• Low power + Solar powered = Affordable</li> <li>• Low replacement rate = Affordable</li> <li>• Self-cleaning + easy operations = Affordable</li> <li>• Community water distribution model   Corporate client sponsors = Increase access</li> </ul>	

Impact Area	Economic Growth and Trade	Founder	SE_Non_Tech_008
Social Innovation		Impact Model/ Social Benefit Model	
Tackling unemployment and rural brain drain through the production of castor products for bio-diesel purposes		<ul style="list-style-type: none"> <li>• Rural Farming of castor seeds and processing them into castor oil and biodiesel.</li> <li>• Teach rural communities how to grow the seeds on marginal lands during winter and summer seasons.</li> <li>• The venture buys seeds from these rural farmers at a discount for further processing. Rural farmers earn royalties from the proceeds of the oil sale.</li> <li>• Reduce brain drain in rural communities for urban opportunities by offering economic participation and trade.</li> </ul>	

### 5.2: Key Organisational Factors

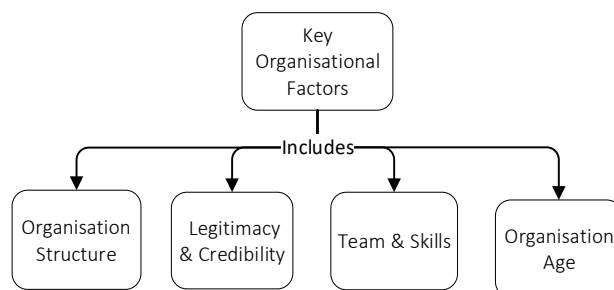


Figure 5—1: Key Organisation factors sub-themes – Non-Tech SE’s

Based on the themes raised by participants in the interviews, the findings on the organisational factors of the social enterprises will cover organisation structure, legitimacy and credibility factors, team and skills and organisation age.

5.2.1: Organisation Structure

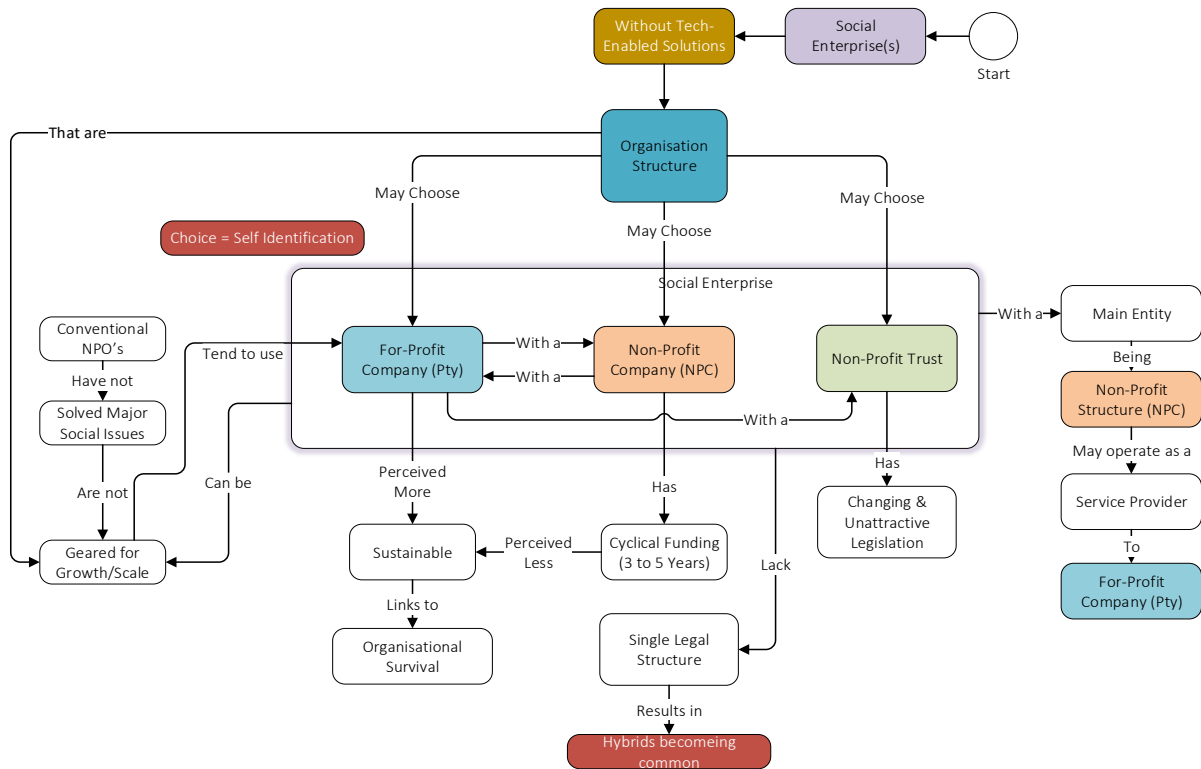


Figure 5—2: Organisational Structures – Non-Tech SE's

Similarly to Case 1, this sub-group of entrepreneurs is also conscious that each structure has its advantages and disadvantages and that there is not an in-between model. Social entrepreneurs perceive the for-profit structure as more sustainable when compared to NPOs, and NPOs always seem to be dealing with issues of survival tied to funding cycles. The fear is that NPOs and/or NPOs can have good funding for three to five years, and as soon as they are no longer “on trend”, funding sources dry up. It is a consistent perception that the non-profit structure is not the main sustainable vehicle for the future.

All the participants identify as social entrepreneurs irrespective of the organisation’s structure. In organisations structured with the main entity being the NPC, the NPC tends to become a service provider or a supplier to the for-profit entity that can on sell to the market. Trusts are not common to operate a social business under, and only one of these entrepreneurs had structured their non-profit as a trust. Changing legislation has made trusts more unattractive.

The views that traditional NGOs have not been able to solve existing social challenges and NGOs are generally not geared for growth-driven organisations also motivate some entrepreneurs to gravitate towards for-profit models. Ultimately, it is about finding the right model that enables the social enterprise to raise money to grow. The fact that there is not a single structure that recognises social enterprises using a hybrid model creates complexity, and these organisations have to register and operate two organisational structures.

### 5.2.2: Legitimacy & Credibility

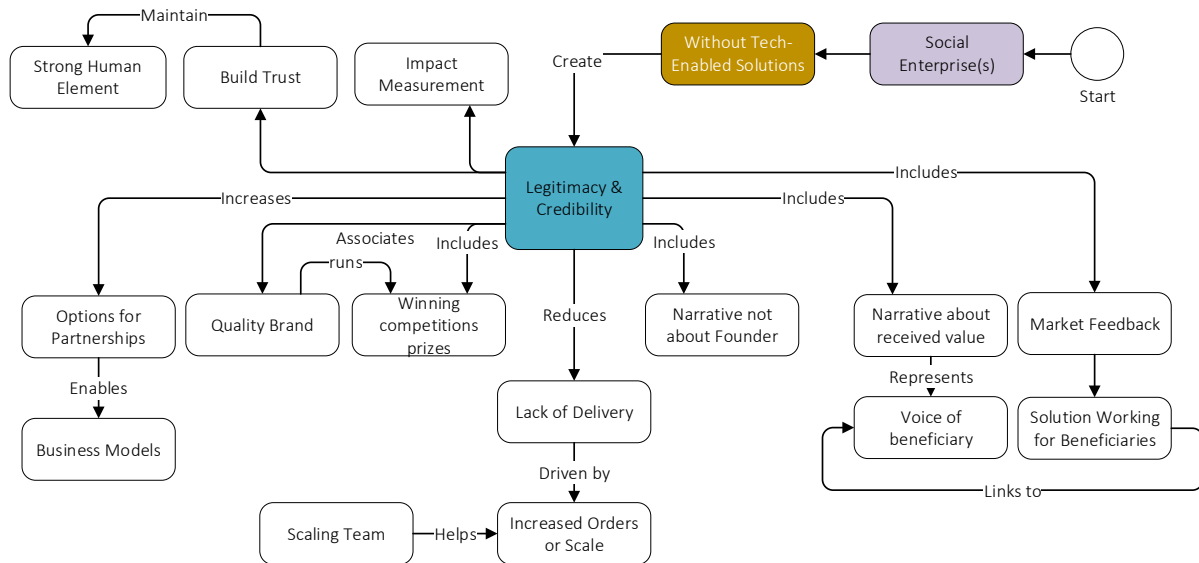


Figure 5—3: Legitimacy & Credibility – Non-Tech SE's

Reaching a point where the narrative is not about the founders and more about the people receiving value further amplifies the legitimacy and credibility of these social enterprises. The social enterprises accrue credibility based on the voice of the beneficiary. Winning prestigious competitions and/or prizes also serves as a means to build credibility for the work of the social enterprise. The brand of the organisation that initiates the competition and/or prizes can be leveraged in a similar manner. The counter is also true, meaning that if larger brands do not fully believe in social innovation and do not deem the organisation to be credible, they will reject the association. Credibility is also tied to market feedback. When people see the solution working for others, they take steps to be part of the program or to buy into the solution. Market feedback feeds social innovation credibility.

Lack of delivery as orders increase and deteriorating service as businesses scale does affect the organisation's credibility. One of the entrepreneurs advocates for scaling social innovation while scaling a team instead of just focusing on reaching more sites. Impact measurement is a vital mechanism for building and maintaining legitimacy and credibility. The founders choose to build trust by maintaining a strong human element within service provision. They reject the view that success only comes from Uberfying each and every industry, especially when the stakes are high, and people need peace of mind and trust is a major factor.

High levels of legitimacy and credibility of a social enterprise increase options for partnerships. This, then, in turn, means that new business models are possible when leveraging on the strengths of partners to enable a business model that would have otherwise been possible.

### 5.2.3: Team & Skills

Founders in this sub-group mentioned no specialised skills. The founders optimise finding smart people that can help them develop their social innovation. They emphasise the right team and collaboration during the product development stage. In some cases, the business

may need to scale down as some challenges become visible, this level of flexibility is required for the business to survive difficult periods. Some of the businesses choose to also use skills from their core beneficiaries in order to reduce cost while creating a cycle of “paying it forward”. The businesses are also willing to recruit retired skills and supplement with volunteers if that fits the business model.

Often, the founder starts running as a small team or a one-person team. They quickly reach a point where it is no longer sustainable. Almost all social entrepreneurs recommend finding co-founders to manage the difficult cycles when one person is feeling down and the other person needs to pick up the slack.

One of the entrepreneurs recommends being conscious about scaling the team as the social innovation product is scaling or the number of sites is growing. Not all entrepreneurs believe in the concept of a super team, but rather take the approach of thinking deeply about the core team and associated skills needed in that business. Trust is a significant factor when constituting the initial team. If it breaks, it stalls the organisation's growth while the team is being reconstructed. While scaling, founders also advocate for growing the team and taking care the team’s growth needs (responsibilities and new skills).

### 5.2.4: Organisational Age

The average age for digital tech-enabled social enterprises is 5.6 years [sub-group]  
The summary is considered at the time of the interviews.

Table 5—1: Organisational age of social enterprises not leveraging digital technology

Social Enterprise	How Old?	Age	Social Enterprise	How Old?	Age
SE_Non_Tech_001	2015 to Present	5	SE_Non_Tech_005	2015 to Present	5
SE_Non_Tech_002	2014 to Present	6	SE_Non_Tech_006	2014 to Present	6
SE_Non_Tech_003	2014 to Present	6	SE_Non_Tech_007	2015 to Present	5
SE_Non_Tech_004	2016 to Present	4	SE_Non_Tech_008	2014 to Present	6

### 5.3: Social Impact Scaling Strategy Models

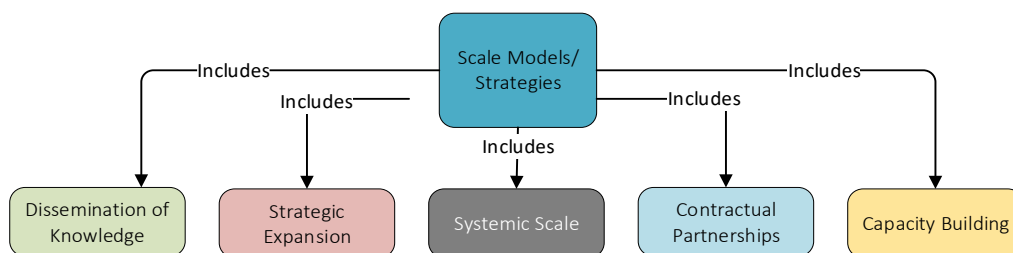


Figure 5—4: Social Impact Scaling Strategy Models – Non-Tech SE’s

In this sub-section, I explore which scaling models social enterprises choose and their views on those models.

5.3.1: Dissemination of Knowledge

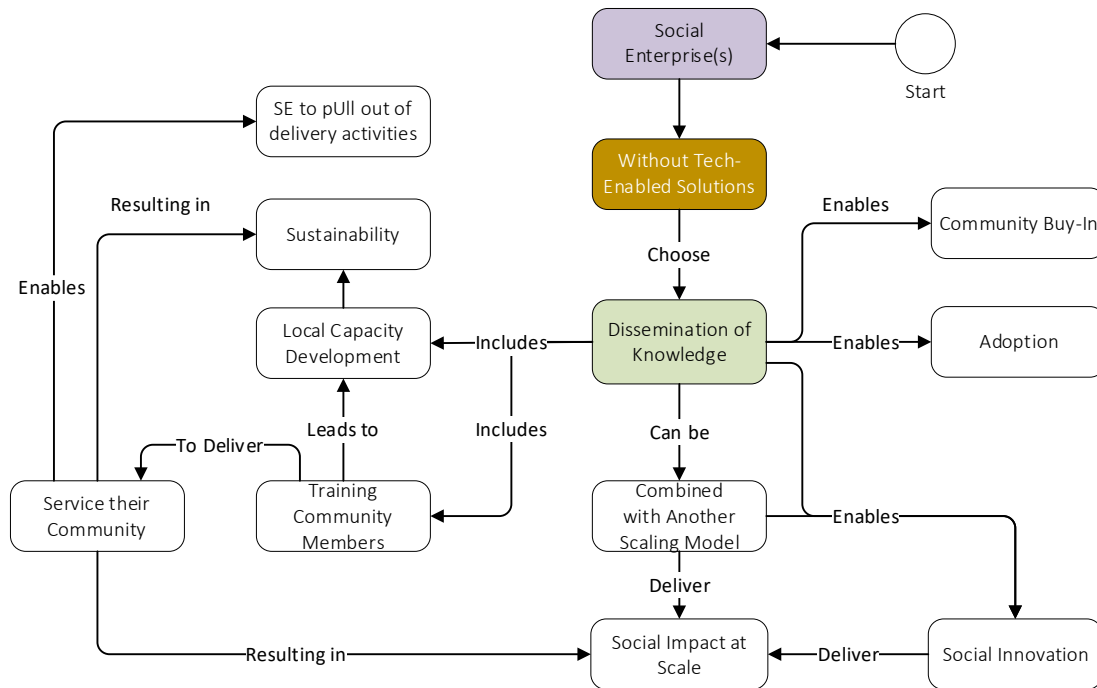


Figure 5—5: Dissemination of Knowledge – Non-Tech SE’s

Similarly, for this sub-group, dissemination is also an unpopular scaling strategy model. Only 1 of the eight non-tech founders uses some elements of the dissemination scaling model. The founder also combines dissemination with another scaling model. The founder uses dissemination by training community members who will ultimately serve the community when the organisation is pulled out.

Social business is driven by the desire for social innovation to impact as many people as possible, but after the local capacity has been developed, they leave it to the local members to execute beyond the involvement of the core organisation. An additional driver is to create employment by promoting self-employment, even though the trained community members do not automatically become employees of the core social enterprise.

Dissemination as a scaling model helps create community buy-in and sticky adoption. Despite the low adoption of the scaling model, it can help to create a thought leadership channel for the brand while also increasing adoption in the communities.

5.3.2: Strategic Expansion

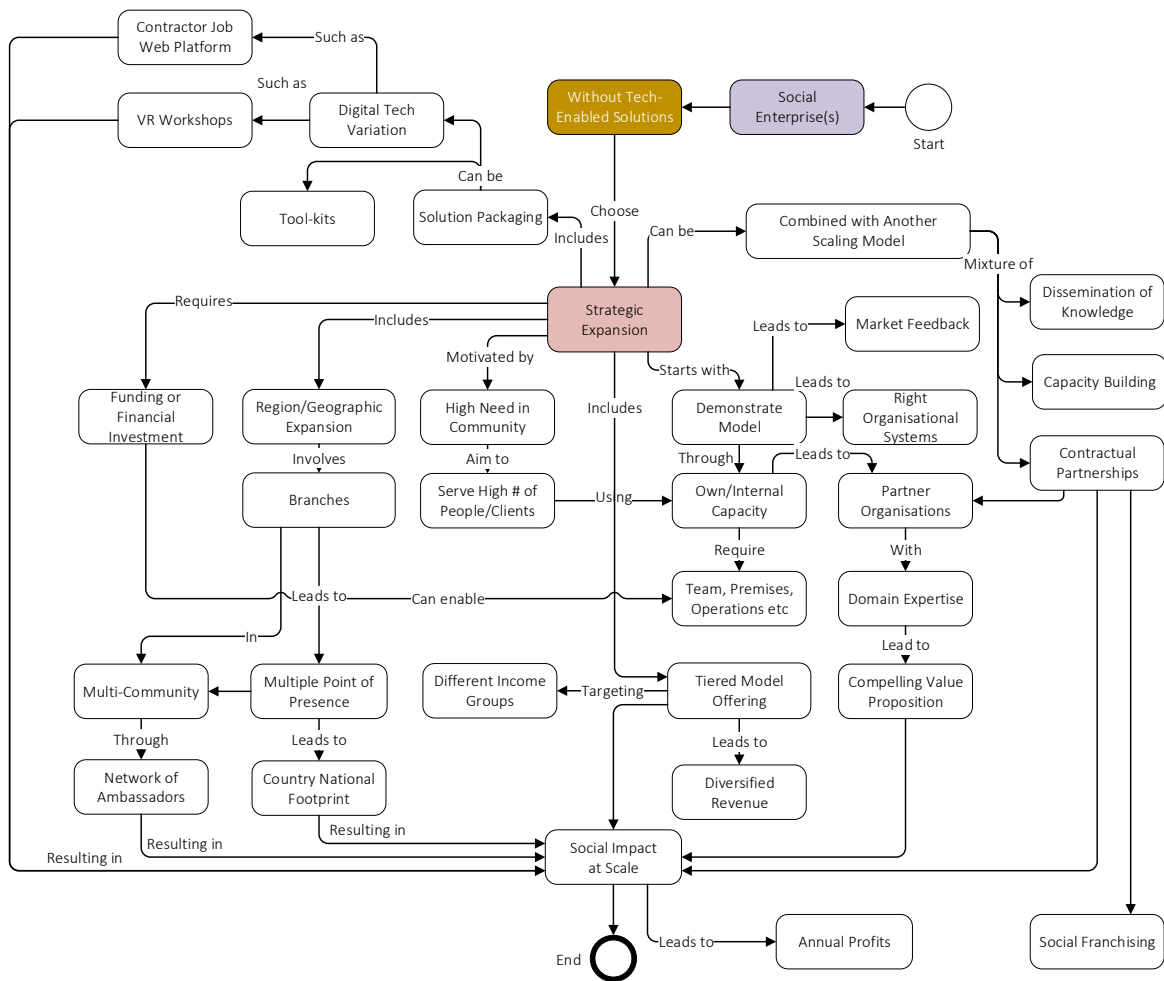


Figure 5—6: Strategic Expansion – Non-Tech SE’s

For Social Enterprises without Tech-Enabled Social Innovation, Strategic Expansion starts with an organisation demonstrating an operating model with market feedback to justify the right organisational systems. The operating model is delivered through its own or internal capacity and in some cases with partner organisations with domain expertise to deliver a compelling value proposition to achieve Social Impact at Scale. Strategic expansion requires a lot more funding or financial investment because of the need to build a team, set up premises, and general operations.

This group of Social Enterprises chose Strategic Expansion because of its ability to enable regional or geographic expansion, which involves setting up branches to create multiple points of presence, resulting in a national footprint in a country in pursuit of Social Impact at Scale. These branches or multiple community implementations can be set up with leadership from a network of ambassadors. The choice for strategic expansion is motivated by a high need in the community and the organisation's desire to serve an increased number of people/clients or beneficiaries using their own/internal capacity.

This group of social enterprises combines strategic expansion with another scaling model, such as dissemination of knowledge, capacity building, or contractual partnerships (often with

partner organisations with a specific domain expertise or compelling value proposition). Combining strategic expansion with contractual partnership is the foundation of social franchising. One of the social enterprises is exploring packaging their solution as a toolkit that can be delivered in Virtual Reality.

### 5.3.3: Contractual Partnership

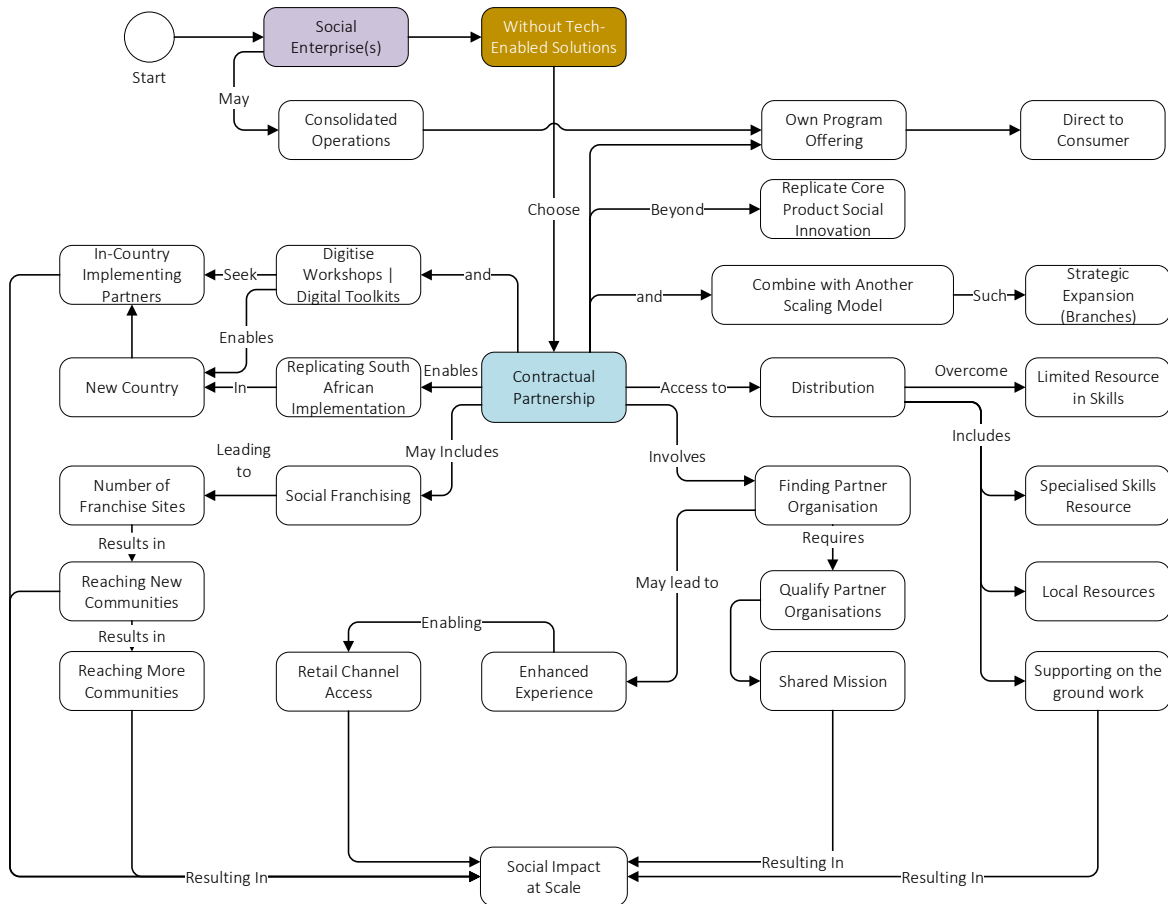


Figure 5—7: Contractual Partnerships – Non-Tech SE's

Contractual Partnerships come in handy when replicating the South African Implementation in a new country. The Contractual Partnership combines well with strategic expansion as another scaling model when setting up branches. The power of Contractual Partnership is its ability to provide access to distribution to overcome limited resources. The increased distribution capacity can be in the form of specialised skills resources, local resources and the ability to support on-the-ground work to lead to social impact at scale.

Contractual Partnership may include social franchising, leading to increased franchise sites to reach more communities faster. In Contractual Partnerships, the social enterprise often looks for partner organisations with a shared mission. One of the social enterprises in this group found a partner that enhanced their delivery through a retail access channel after structuring a partnership.

## 5.3.4: Capacity Building

The capacity building theme did not have sufficient comments to be a significant theme within this research. Capacity building does not seem to be a significant them for Case 2.

## 5.3.5: Systemic Change Scale

The system change theme did not have sufficient comments to be significant theme within this research. System change does not seem to be a significant them for Case 2.

## 5.3.6: Social Impact Scaling Strategy Summary

Based on the overall comments pulled through by using the NVIVO matrix coding query function, I managed to build a summary of scaling strategies used by Case 2 social enterprises.

*Table 5—2: Scaling Strategies for Case 2 Social Entrepreneurs*

##	Social Business	Dissemination of Knowledge	Contractual Partnerships	Strategic Expansion	Capacity Building	Systemic Scale
1	SE_Non_Tech_001	Yes	Yes	Yes	No	No
2	SE_Non_Tech_002	No	Yes	Yes	No	No
3	SE_Non_Tech_003	No	No	Yes	No	No
4	SE_Non_Tech_004	No	Yes	Yes	No	No
5	SE_Non_Tech_005	Yes	Yes	Yes	No	No
6	SE_Non_Tech_006	No	No	Yes	No	No
7	SE_Non_Tech_007	No	Yes	Yes	No	No
8	SE_Non_Tech_008	Yes	Yes	Yes	No	No

Table 5—2 indicated that none of the social enterprises use capacity building and systemic scale as scaling strategies. Strategic Expansion is the most preferred strategy used by all the social enterprises in Case 2. Contractual Partnership is the second most preferred. Very few social enterprises will choose only one scaling strategy and often default to two or three strategies implemented simultaneously. I provide a detailed comparison of Case 1 and Case 2 in the Discussion and Key Learnings Chapter.

### 5.4: Developing Scaling Strategies

In this section, I explore how Social enterprises without technology enabled social innovations develop their scaling strategies. I do this by first investigating how they define scaling social impact and what this means for them. I then elaborate on the different role players that are instrumental in conceptualising the scaling strategy or choosing the relevant scaling model. I set out to understand who are the different stakeholders that have an influence on the process of developing a scaling strategy for a social enterprise. After that, I provide a rich and detailed description of the journey and pathway each of the eight social enterprises went on to develop this scaling strategy. I then closed the section by exploring the scaling costs that the social enterprises raised. Other themes like access channels, scaling through emergence and scale concerns we coded but did not have sufficient data to allow for an in-depth exploration.

#### 5.4.1: Defining Scaling Social Impact

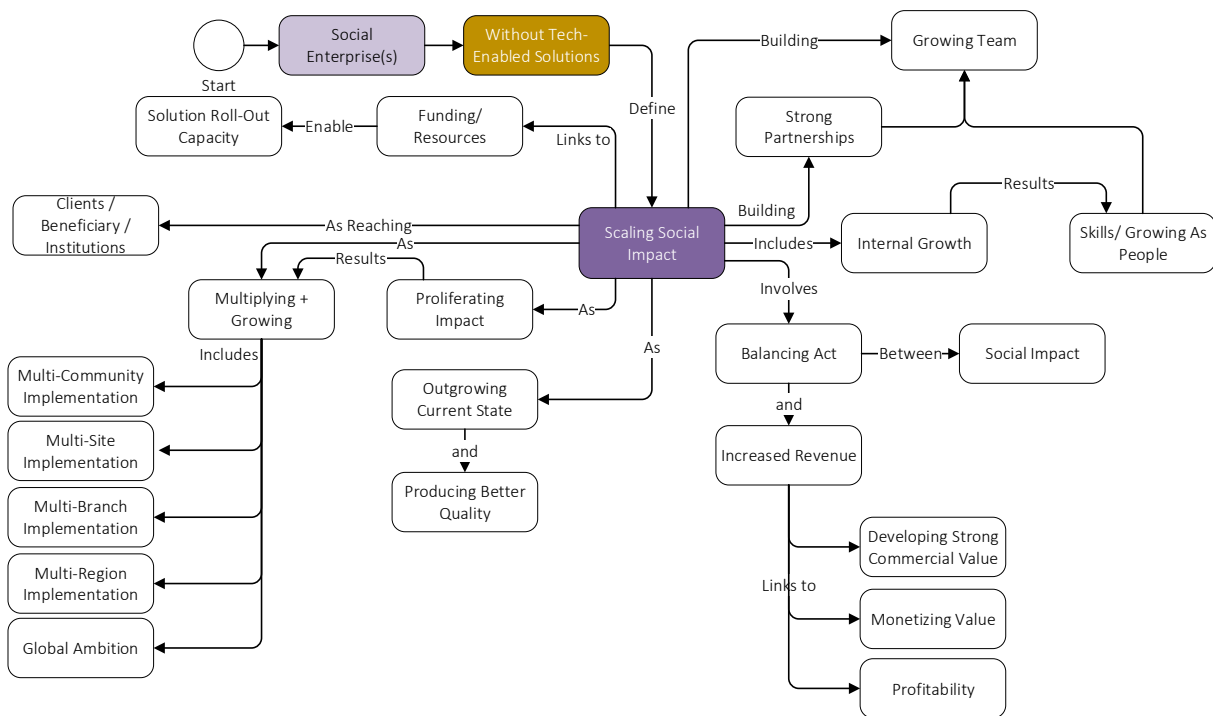


Figure 5—8: Contractual Partnerships – Non-Tech SE's

Social enterprises without a tech-enabled social innovation define scaling social impact as building strong partnerships, growing teams, and improving the team's skills. Scaling social impact links to funding and resources that enable the social enterprise to roll out its social innovation at a bigger capacity. It is about proliferating impact, outgrowing the current state and producing better quality impact delivery.

For this group of social enterprises, scaling social impact involves a balancing act between social impact and increased revenue, which is tied to developing strong commercial value

propositions, monetizing value, and profitability. It is about multiplying and growing through multi-community implementation, multi-site implementation, multi-region implementation and an overall global ambition. Scaling Social Impact is about reaching more clients, beneficiaries, and institutions.

## 5.4.2: Scale Development Role Players

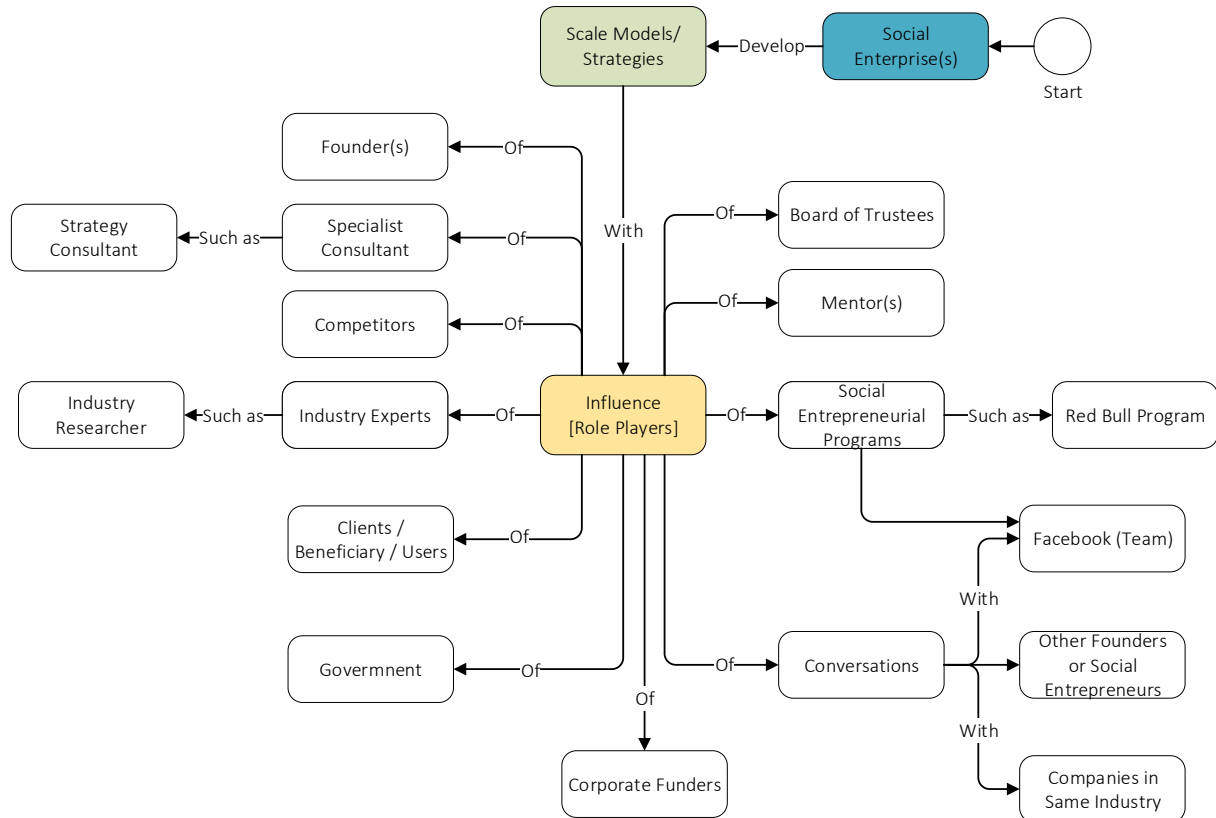


Figure 5—9: Role Players for Developing a Scaling Strategy – Non-Tech SE's

When exploring the different role players instrumental in conceptualising the scaling strategy or choosing the relevant scaling model, social enterprises without a tech-enabled social innovation consider the founder(s), board of directors, and mentors the most significant role players. In some contexts, industry experts such as industry researchers and specialist consultants such as strategy consultants can help shape the development of a scaling strategy.

Competitors, Government, and Corporate Funders also have a role to play. One of the most significant role players is the clients, who are the beneficiaries of users. This group of Social Entrepreneurs mentioned Social Entrepreneurial programs such as a Red Bull Amaphiko program as impactful in thinking about scale. Another influential factor is conversations with other founders, social entrepreneurs and companies in the same industry. One of the founder's scaling strategies was significantly influenced by discussions with employees from Facebook, which was facilitated through a social entrepreneurial program.

### 5.4.3: Pathway for Developing a Scale Strategy

In this section, I provide summaries of the scaling strategy development journeys of the eight SE's that are not leveraging digital technology. I focus on each organisation's path to provide a richer description.

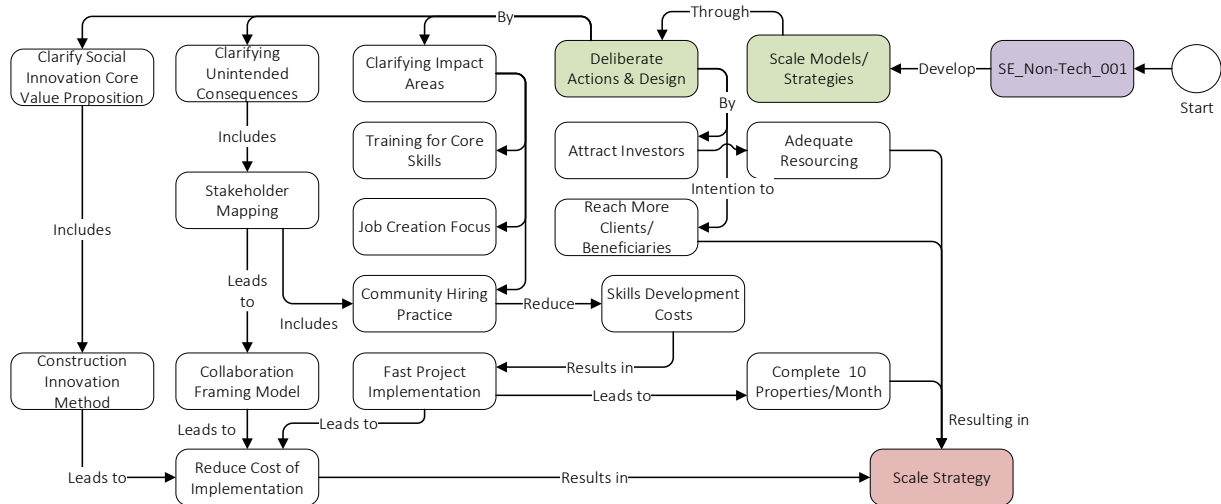


Figure 5—10: SE\_Non\_Tech\_001 Scale Strategy Development Pathway

For this social enterprise. Developing a scaling strategy involved building a community hiring practice to create jobs, training people on core skills needed and collaborating with people who already have the skills to deliver on projects.

The founder was very careful about the unintended consequences of their presence in communities. Mapping out all the stakeholders that might be displaced by the entry of the social enterprise and building a collaboration model on how these stakeholders can plug in. The collaboration framing has a direct impact on scale since core skills do not have to be developed from the beginning. It ensures that projects take shorter to deliver by onboarding more people who can deliver a project faster.

The core value and social innovation is the method used to ensure that people who do not have access to traditional finance can still have a pathway towards quality home ownership. The social innovation uses new and innovative methods in the construction industry but does not have an underlying digital technology that they deploy. By being able to build faster, the organisation can serve more clients. Low cost and speed of construction are achieved through an attitude of willingness to adopt new methods that are more sustainable in the built environments.

Profitability is achieved by mass reach; the organisation needs to be running five to ten construction projects simultaneously per month. To succeed at scale, the organisation also has to keep on finding investors to ensure adequate resourcing for scale.

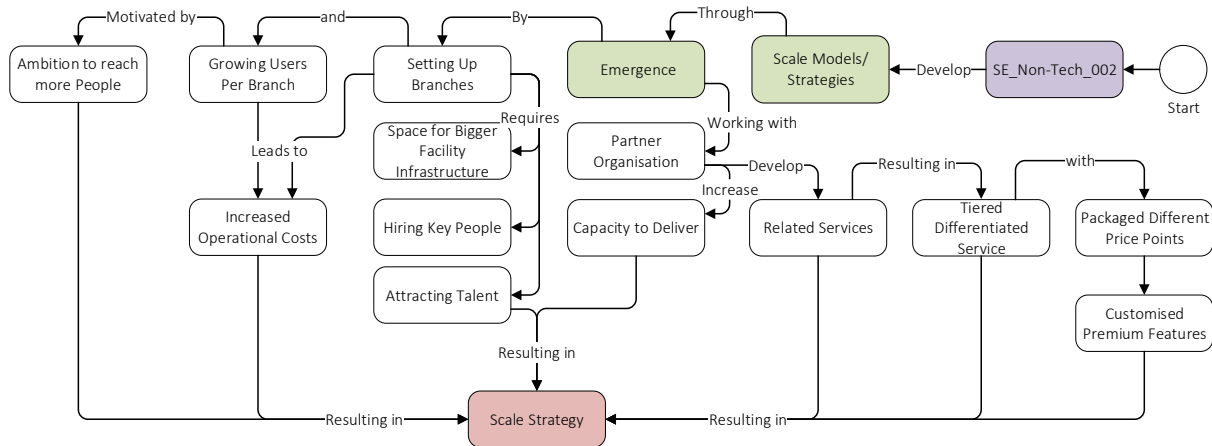


Figure 5—11: SE\_Non\_Tech\_002 Scale Strategy Development Pathway

For this social enterprise. Developing a scaling strategy involved growing the number of kids in each branch. Space for setting up branches and teachers is a key strategic resource. Validation from parents on the benefits of the program for their kids propelled the founder to have a higher ambition for reaching more people.

Funding a way to attract talent, expand into bigger space and cover operational costs transport costs was the most significant challenges to overcome in developing a scaling strategy. As part of further developing the scaling strategy, the founder is looking to launch related services or partners for programs that address areas their program does not have the skill and capacity to deliver to their current client base. This results in a higher-value packaged offering that is more compelling for clients. The founder is also exploring having a customised tiered service for clients who ideally want premium features.

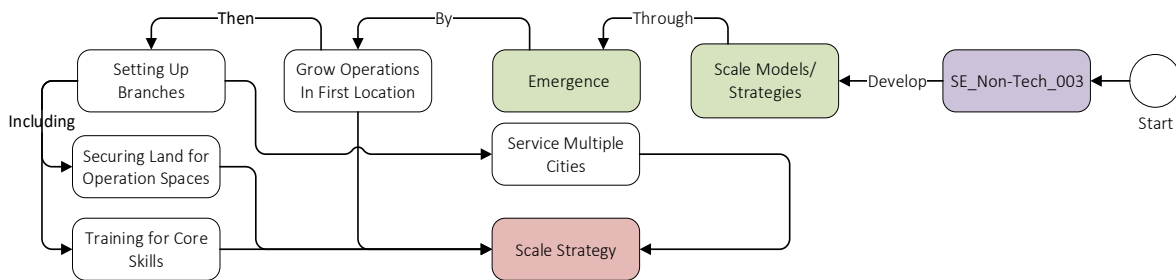


Figure 5—12: SE\_Non\_Tech\_003 Scale Strategy Development Pathway

For this social enterprise. Developing a scaling strategy involved offering the service in different cities and setting up new branches in other locations. Making this work successfully requires the business to have an approach to securing land for operational space. The social enterprise trains the waste pickers on basic skills for running a business and engaging with clients, Health and Safety, re-purposing waste and providing uniforms for dignity and credibility.

Getting the right partners on board, such as brands through the CSI Model and government. The intention is to replicate across cities by replicating the same strategy that worked in the initial locations.

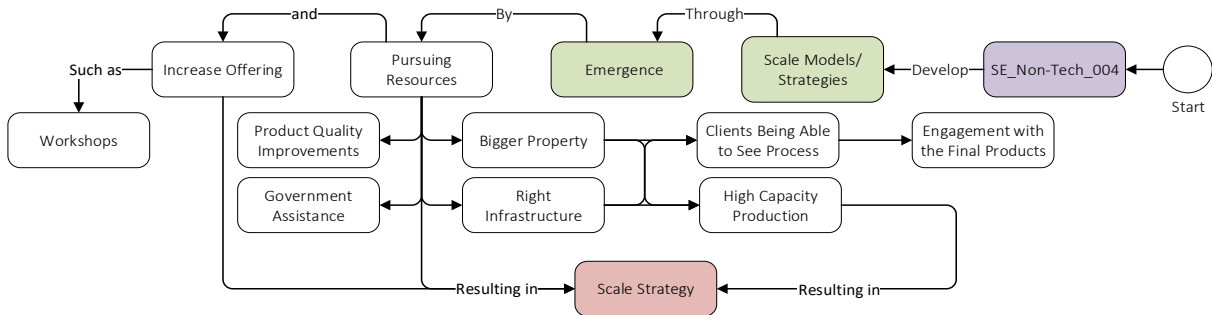


Figure 5—13: SE\_Non\_Tech\_004 Scale Strategy Development Pathway

For this social enterprise, developing a scaling strategy involved building an approach on how to access bigger properties with the right infrastructure, improving the quality of produce by having tighter control on the growing process through enclosure. The owned property is used to bring in clients to see the process instead of only being limited to engaging with the final product.

The social enterprise is also scaling by offering workshops related to gardening to schools and other clients. Government assistance is also essential for scaling, but the founder acknowledges that it takes a lot of time before any value comes from those conversations.

Each location requires initial infrastructure, so the scaling model for this social enterprise is to have an initial infrastructure that can accommodate high-capacity production when needed as opposed to setting up in multiple locations.

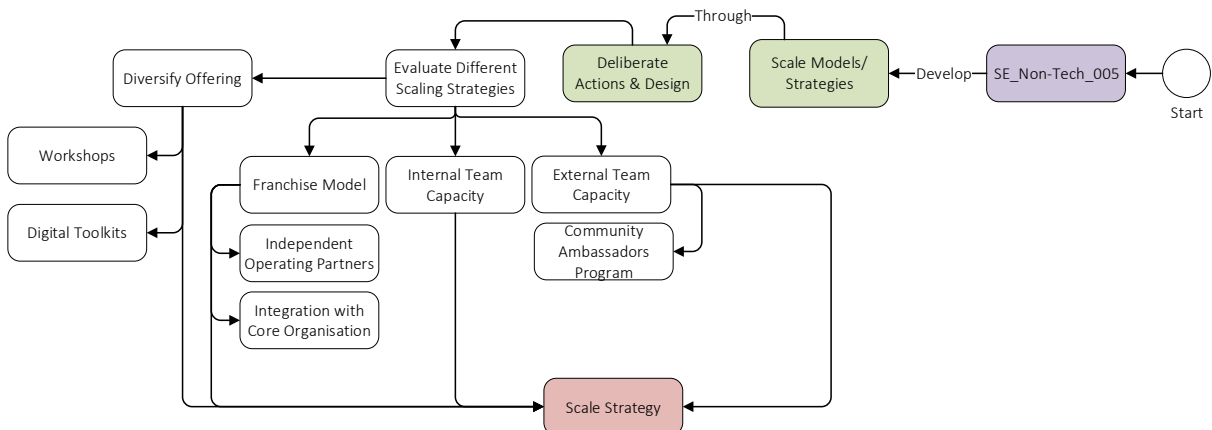


Figure 5—14: SE\_Non\_Tech\_005 Scale Strategy Development Pathway

For this social enterprise. Developing a scaling strategy involved exploring various scaling model options, choosing to move from a workshop-only delivery to setting up toolkits and building up a franchise model where independent operating partners can leverage the toolkits and run their own workshops anywhere without needing deep integration with the core organisation.

The founder is intentional that the delivery of the social impact should not only be through the internal team capacity. It has to go broader beyond the organisation and be more accessible. Going beyond the workshops and the toolkits, the organisation also has an ambassadors program where they support young people to be great models for other people in their

communities. This ensures that the core values of the organisation live in the community in order to inspire other young people.

To crystalize the scaling strategy. The founder worked with a consultant to map out all business strategy components and put together a growth plan. This plan documented impact objectives, reach in terms of beneficiaries and how this will be achieved.

Adding to the contribution of how the strategy will be shaped, Facebook has made available \$50 000 worth of advertising and promotions, which is being leveraged as a tool that can bring in donations during fundraising campaigns.

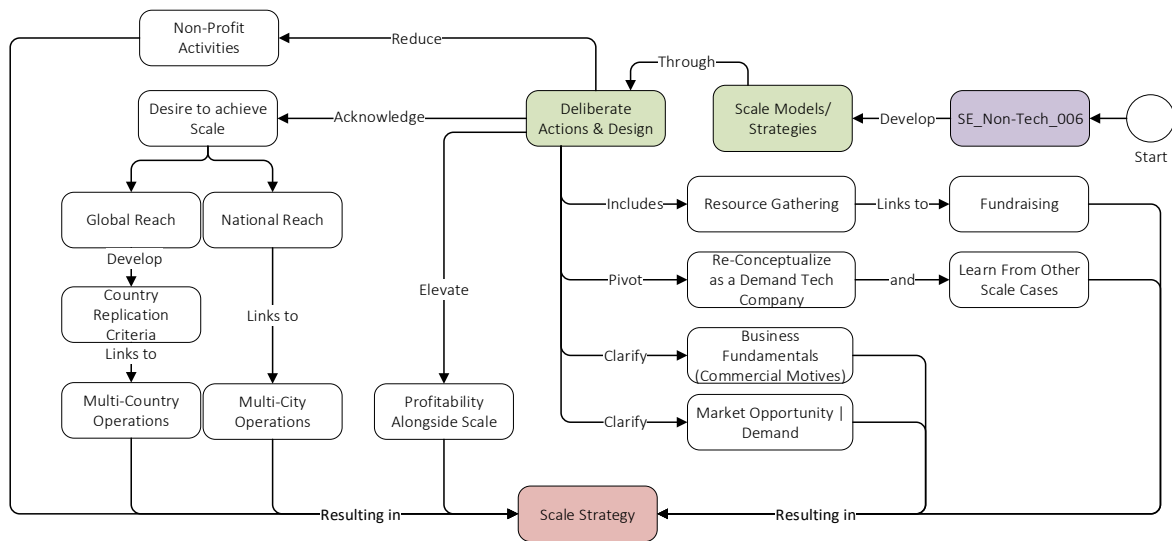


Figure 5—15: SE\_Non\_Tech\_006 Scale Strategy Development Pathway

For this social enterprise. Developing a scaling strategy involved setting up operations in major cities nationally and finding similar countries to expand to as part of building out a global reach. A significant activity for scale is fundraising and building the resource pull needed.

The founder shares that having put more emphasis in the activities of the non-profit arm of the business has been a limiting factor and detrimental to implementing the scaling plan of the overall social enterprise. He advocates for putting more energy into the business fundamentals and market opportunity.

This social enterprise had to conceptualise itself as a demand tech company, learn from those who have achieved scale or died in the on-demand marketplace platforms industry, and their route to where they are in order to develop a high ambition of the reach they could have. The social enterprise is identified as a commercial business that values a strong human element with a service through a website but still dialing down on the tech marketplace platform component.

Profitability is proportional to scale, scale is a product of successful business models, not only an effective strategy but mostly an effective business model that provides the market with what the market wants. Scale remains a dream if the issues around the businesses are not addressed.

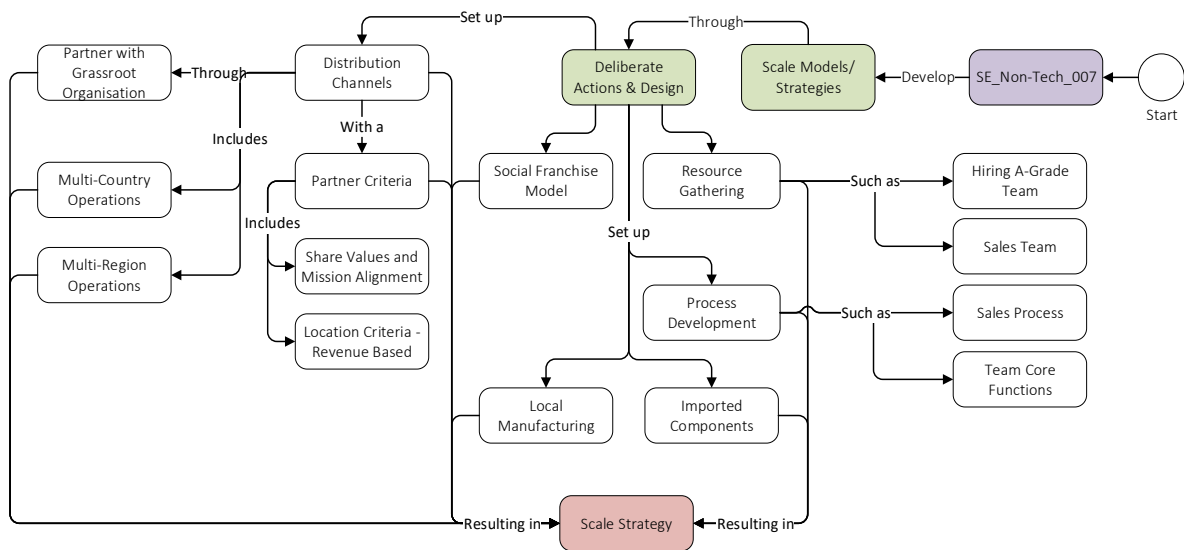


Figure 5—16: SE\_Non\_Tech\_007 Scale Strategy Development Pathway

For this social enterprise. Developing a scaling strategy involved creating partnerships with grassroots organisation that assist with the distribution of the social innovation. Since the business model operates on a 1 to 20 gearing for low-income communities. The number of products sold is proportional to the social impact.

The founder is adamant that the traditional VC model of hyper-growth and getting an A-grade team is not easy and does not always work. The partnerships operate as a social franchise model, with the local partner running a site. To get this model right, finding the right people or organisation with shared values is essential, given the amount of funding needed upfront.

In developing the model, the organisation tested with a couple of partners in various parts of the country, aiming to learn through the multi-settings approach. Choosing locations needs to be well considered as it affects revenue.

Areas that had to be well considered in defining the scaling strategy were the sales team and sales process, core functions within the main team, parts manufactured locally, components imported into the country, distribution points and partnerships for multi-country operations.

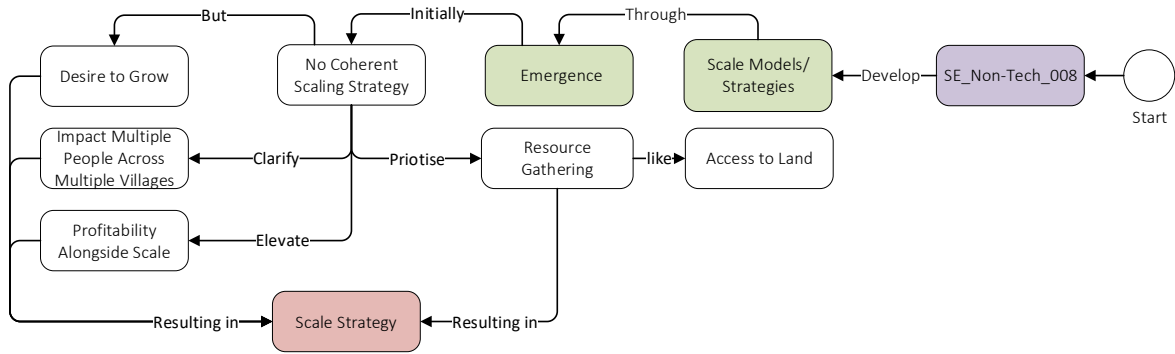


Figure 5—17: SE\_Non\_Tech\_008 Scale Strategy Development Pathway

For this social enterprise. Developing a scaling strategy involved being clear on the desire to grow and impact people across multiple villages and the direct relationship between profitability and scale in the context of this social enterprise.

Developing a scaling strategy involved taking the time to solve the challenge of access to land and dealing with the associated politics.

#### 5.4.4: Scaling Costs

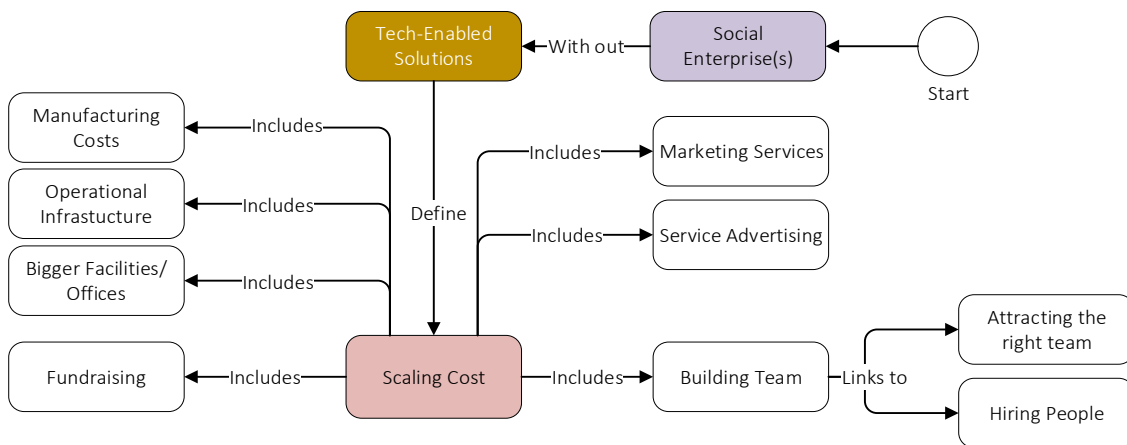


Figure 5—18: Scaling Costs – Non-Tech SE's

Social enterprises without a tech-enabled solution define scaling costs as including increased marketing, advertising, and manufacturing costs. This group also highlights the needs for bigger facilities, bigger offices and building a team, which means attracting the right people and hiring well. Another scaling cost that is brought to the fore is the increase in fundraising costs to support the scale.

#### 5.5: Key Environmental Factors for Scaling Social Impact

In this section (summarised by concept by Figure 5—19), I explore the founders' perceptions on the environmental factors that affect scaling social impact in South Africa. Similar to Case 1, I attempted to look at the Top 10 Factors that came up when exploring all the themes for the environmental level of analysis but only 5 of the themes received significant mention from this case of Social Enterprises.

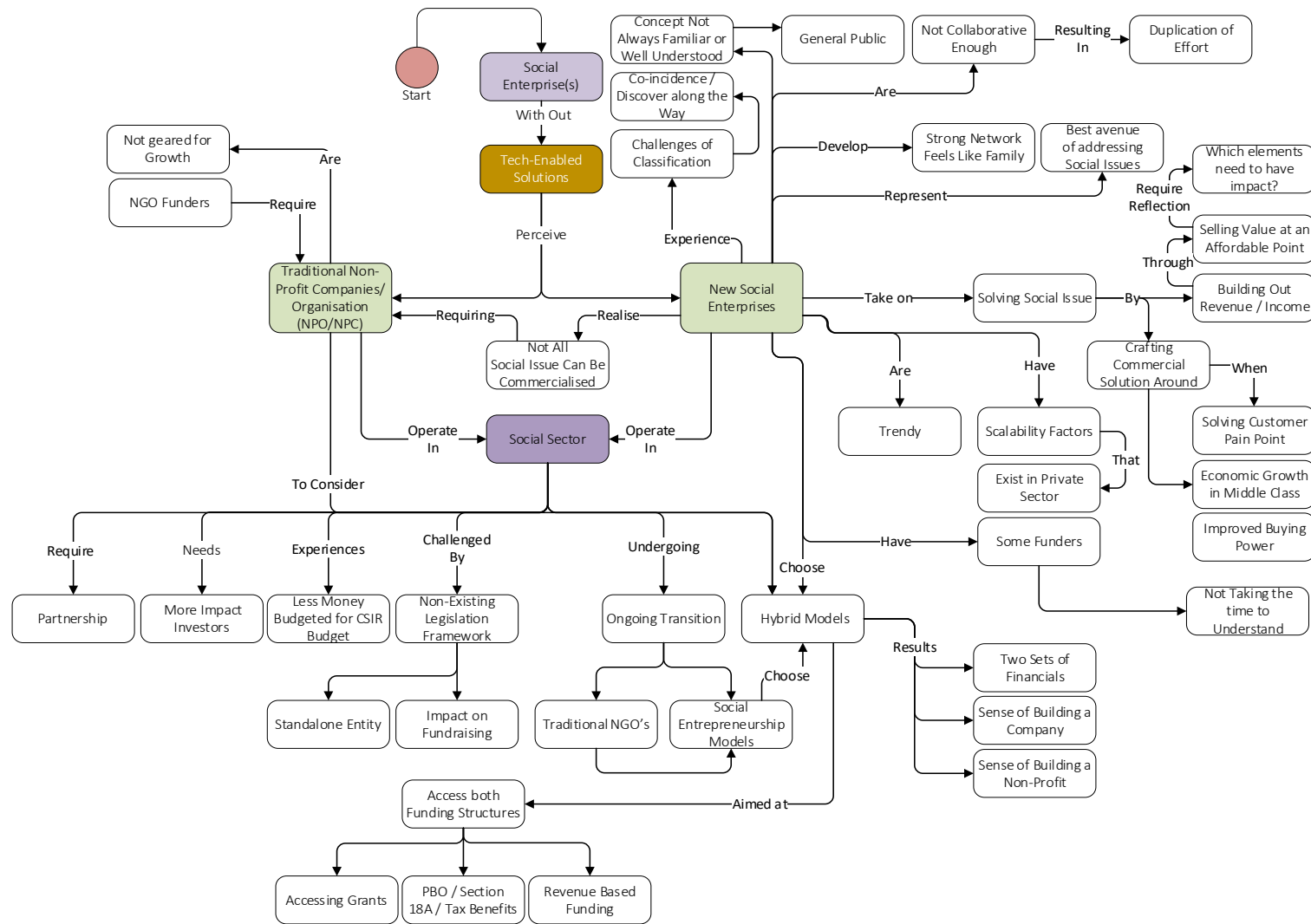


Figure 5—19: Consolidated Perceptions of SE's without Tech-Enabled Solutions on Traditional NPO vs New SE's

## 5.5.1: Social Enterprises Vs Non-Profit Companies (NPCs/NPOs)

In this section, I explore the perceptions of social enterprises without tech-enabled solutions on traditional non-profit companies/organisations against new social enterprises.

### 5.5.1.1.Traditional Non-Profit Companies/Organisation [NPO/NPC]

Social enterprises without tech-enabled solutions perceive traditional non-profit companies as continuously requiring NGO funding, not geared towards growth, and essentially needing to consider hybrid models.

### 5.5.1.2.New Social Enterprises:

New social enterprises experience challenges of classification, especially when entrepreneurs discover their social impact journey via coincidence. Social entrepreneurship is a relatively new concept that is not always well understood by the general public. In some scenarios, social enterprises are not collaborative enough, resulting in duplicate efforts. New social enterprises develop strong networks that feel like family and represent the best Ave for addressing social issues.

New social enterprises take on the challenge of solving social issues by building out revenue models through selling value at an affordable price point, crafting commercial solutions, and solving customer pain points in the context of economic growth in the middle class. Social entrepreneurship is trendy and has scalability factors that exist in the private sector.

New social enterprises choose hybrid models, resulting in a sense of building a company while simultaneously also structuring a non-profit, leading to two sets of financials for the social enterprise. These hybrid models are aimed at accessing funding through both structures. The funding can be in the form of grants enabled by the PBO, Section 18A tax benefits and revenue-based funding.

### 5.5.1.3.The Social Sector:

Social enterprises without tech-enabled solutions hold the view that the social sector requires partnerships, needs more impact investors, is experiencing a reduction in CSI budgets and is challenged by the lack of a non-existing legislative framework that impacts fundraising. As a result of this, the social sector is undergoing a transition where traditional NGOs and Social Entrepreneurs need to choose hybrid models.

### 5.5.2: Funding Landscape

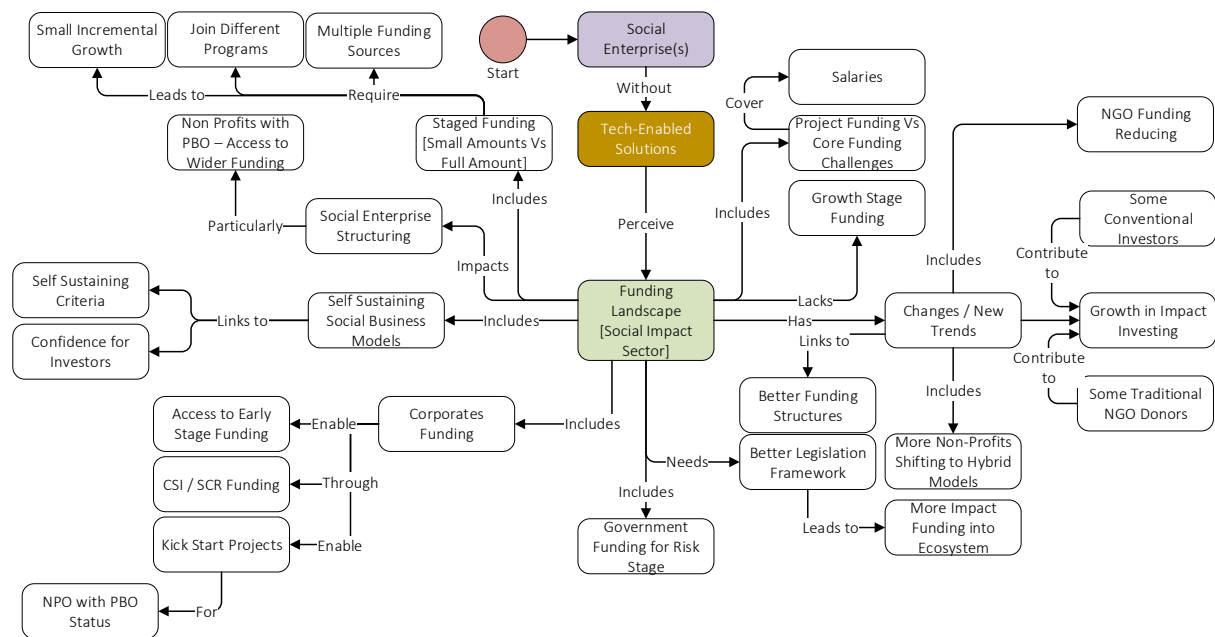


Figure 5—20: Perceptions on Funding Landscape – Non-Tech SE’s

Social enterprises without tech-enabled social innovations perceive the funding landscape to lack growth stage funding, traditionally focused on project funding with little support for core funding, has government funding portions of the risk stage and needs a better legislation framework that can lead to more impact funding in the ecosystem.

The funding landscape is undergoing changes where traditional NGO funding is reducing, more traditional non-profits are shifting to hybrid models, and impact investing is growing, supported by contributions from some traditional NGO donors and some conventional investors.

The funding landscape also includes corporate funding through CSI/CSR funding that enables early-stage funding used to kick-start projects, especially for organisations with PBO status. The funding landscape also stimulates the growth of self-sustaining social business models that gives confidence to investors. The funding landscape also impacts how social enterprises are structured to access wider funding pools through PBO status. It includes staged funding, where organisations receive a small amount vs the full amount needed, requiring organisations to look for multiple funding sources, join different programs, and achieve small incremental growth.

5.5.3: Support Structures

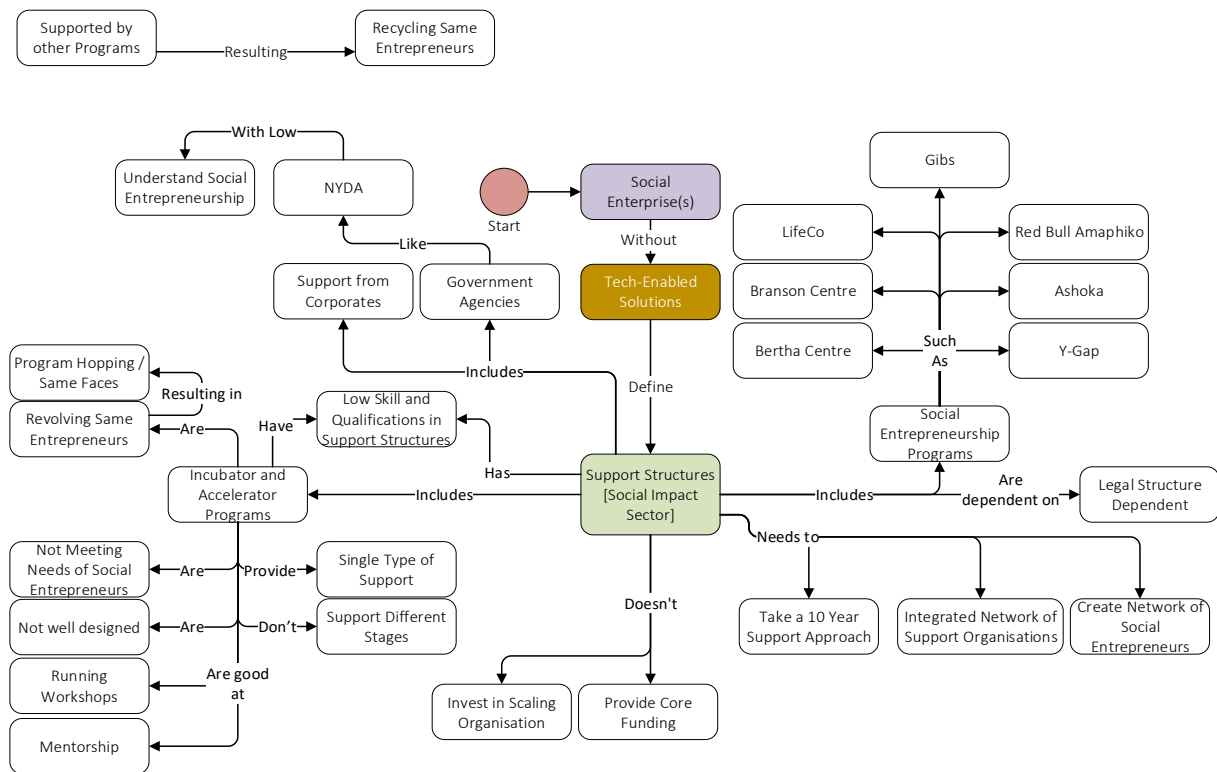


Figure 5—21: Perceptions on Support Structures – Non-Tech SE’s

Social enterprises without tech-enabled social innovations perceive the support structures to consist of support from corporations and Government Agencies like the NYDA, which do not really understand social entrepreneurship. Support structures include incubator and accelerator programs that have people who lack skills and qualifications. These programs are not well designed, do not meet the needs of social entrepreneurs, and offer a single type of support, resulting in the same social entrepreneurs hopping across the programs. They are good at offering workshops and mentorship programs.

The support structures are dependent on the legal structures of social enterprises, do not really invest in scaling organisations, nor do they provide core funding. They include Social Entrepreneurship programs run by LifeCo, Branson Centre, Bether Centre, Ashoka, Red Bull Amaphiko, Y-Gap and Gibs. These social entrepreneurs recommend that support structures take a 10-year support approach work together to provide a network of support organisations. The founders also expressed a need for a network of social entrepreneurs.

5.5.4: Scale Partners

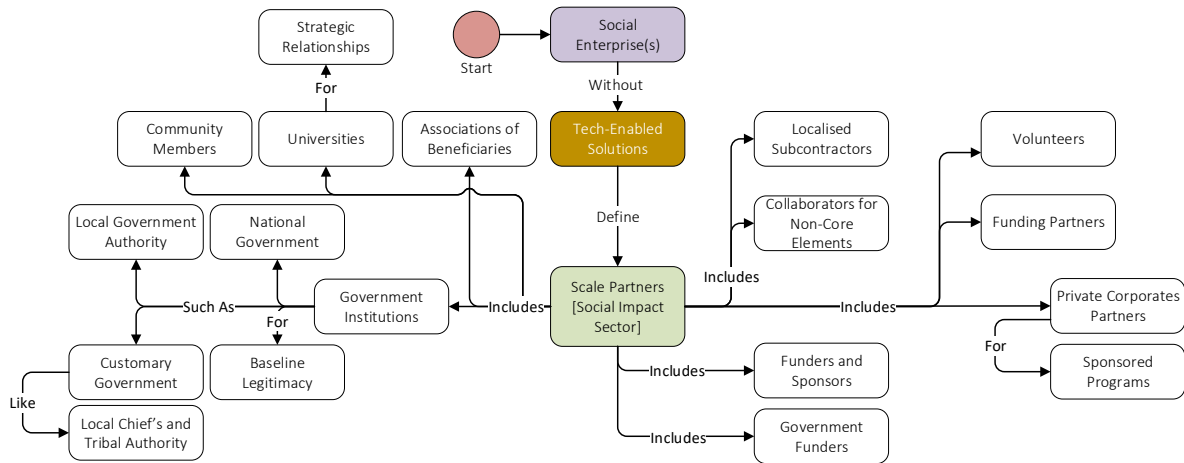


Figure 5—22: Perceptions on Scale Partners – Non-Tech SE’s

Social enterprises without tech-enabled social innovations define the scale partners in the social impact sector to include localised subcontractors, volunteers, funding partners, government funders, private corporate partners that can sponsor programs. Additionally, collaborators for non-core elements of the social innovation can also be regarded as scale partners. Strategic relationships with universities, community members and associations of beneficiaries also make excellent scale partners.

Scale partners include government institutions such as national government, local government and customary authorities such as chiefs and tribal authorities, which form a significant piece of the scale partner network depending on the type of social innovation.

5.5.5: Community

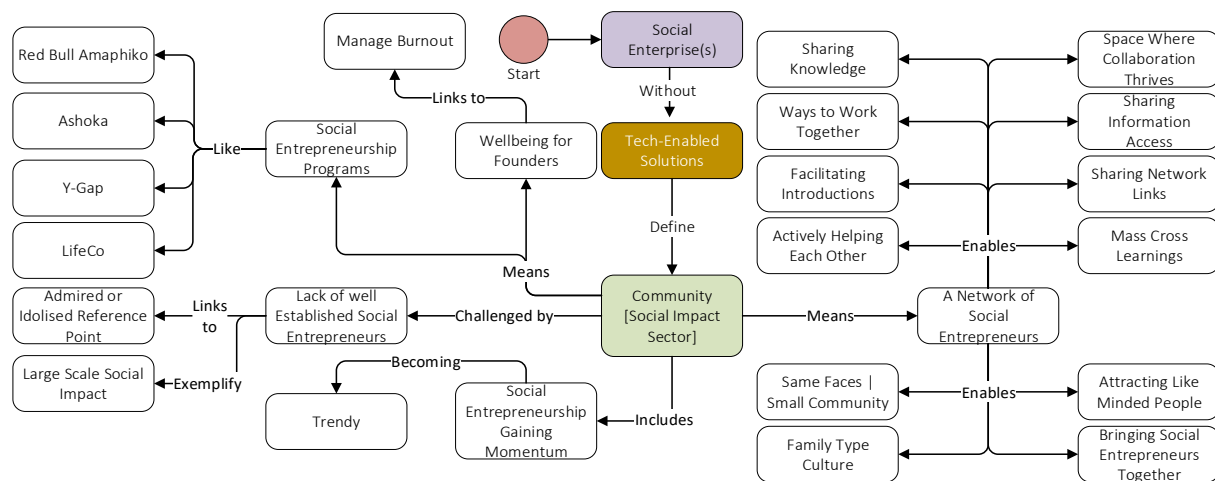


Figure 5—23: Perceptions on Community – Non-Tech SE’s

Social enterprises without tech-enabled social innovations define community as a network of social entrepreneurs that enables mass cross-learning, sharing of information, facilitation of introductions and collaboration. It is a space where like-minded people come together to form family-type culture and thrive. A positive sense of community includes making social

entrepreneurship trendy as it gains momentum. The community also promotes the well-being of founders and equips them to manage burnout.

The lack of established large-scale social impact organisations that are admired to serve as ideal reference points is a challenge. Social entrepreneurship programs run by the likes of Ashoka, Y-Gap, LifeCo and Red Bull Amaphiko are instrumental in creating a sense of community.

## 5.6: Key Social Impact Business Model Factors

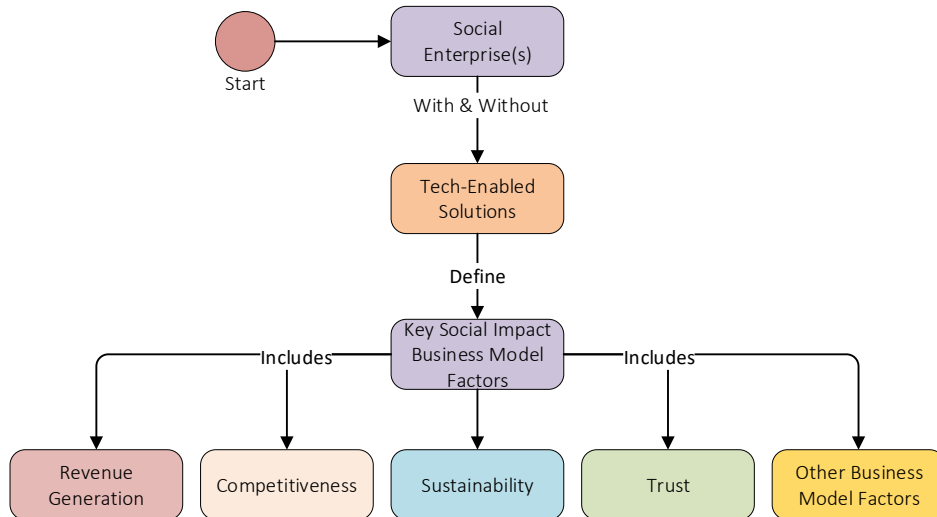


Figure 5—24: Key Social impact Business Model Factors – Non-Tech SE’s

Based on the main points discussed in the interviews, key social business model factors are grouped into five domains, which include revenue generation, sustainability, trust, competition, and others. I explore each in more detail in the following sub-sections.

5.6.1: Revenue Generation

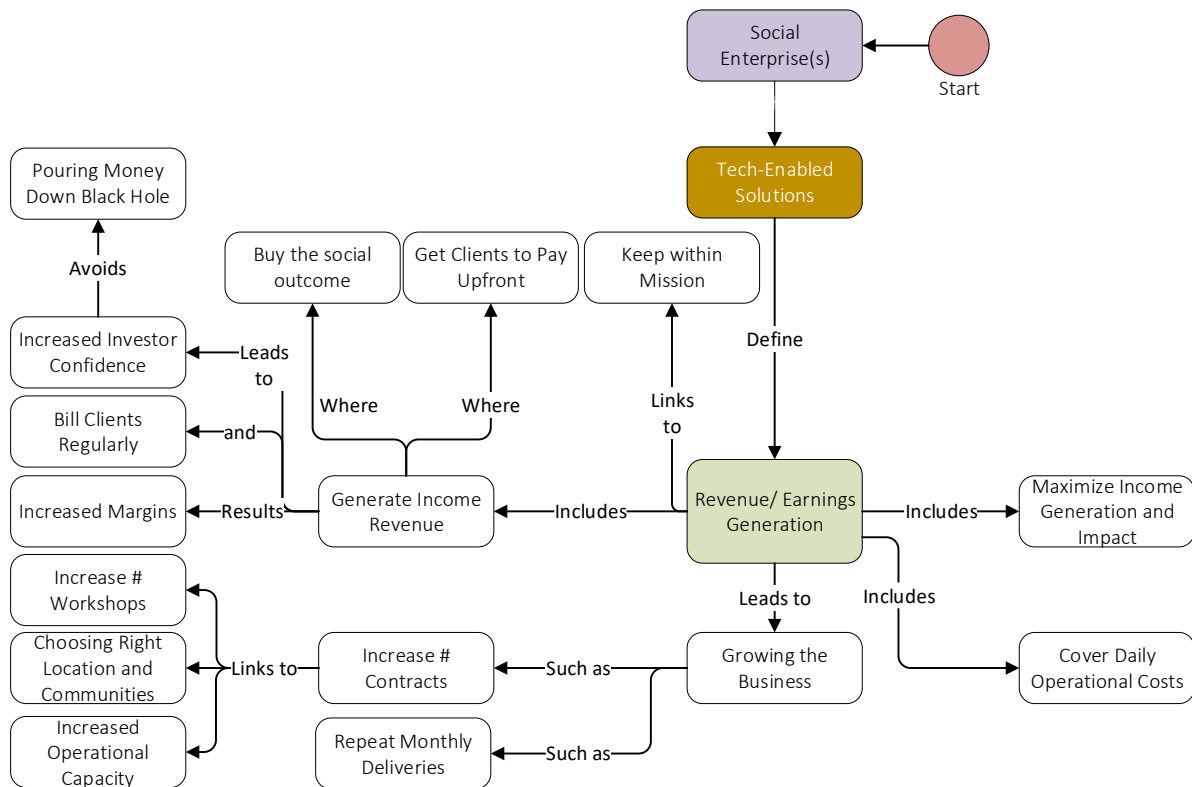


Figure 5—25: Perceptions on Revenue Generation – Non-Tech SE's

Social enterprises without tech-enabled social innovations define revenue generation to include income generated from billing clients regularly. The client buys the social outcome and, in some cases, pays upfront. This income generation leads to increased interest from investors who are determined to avoid pouring money down black holes. Revenue generation includes the ability to maximize income while generating social impact. These social enterprises further connect revenue generation to the ability to cover operational costs.

Revenue generation is also tied to the growth of the business, especially in the form of monthly repeat deliveries and increased contracts. This can be increasing the number of workshops, increasing the operational capacity of the organisation, and choosing the right locations in communities when scaling social impact. Revenue generation needs to grow while keeping in line with the social mission.

### 5.6.2: Competitiveness

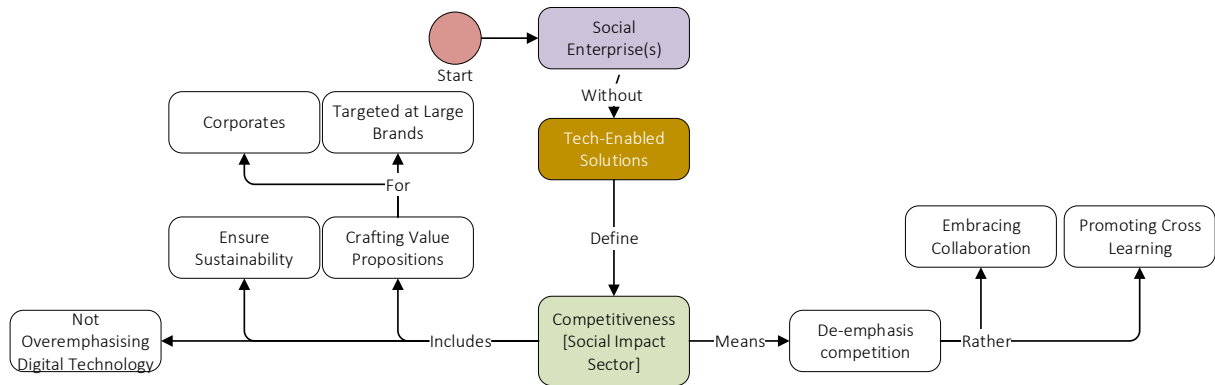


Figure 5—26: Perceptions on Competitiveness – Non-Tech SE’s

Social enterprises with tech-enabled social innovations define competitiveness to include crafting value propositions for brands and corporates while ensuring sustainability. The founders feel strongly about not overemphasising digital technology in the process. Some of the founders want to de-emphasise competition and rather embrace competition while promoting cross learnings.

### 5.6.3: Sustainability

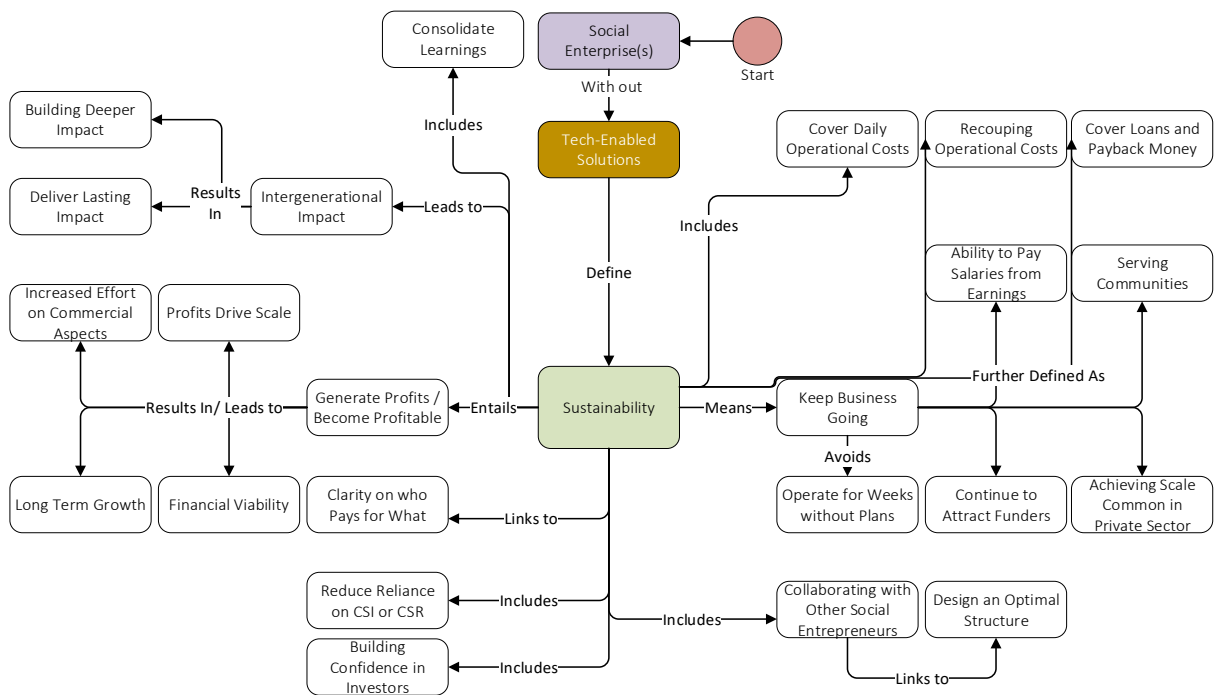


Figure 5—27: Perceptions on Sustainability – Non-Tech SE’s

Social enterprises without tech-enabled social innovations define sustainability to include consolidation of learnings and intergenerational impact that results in delivering lasting deep social impact. Sustainability also links with collaborating with other social entrepreneurs to design optimal structures that go beyond one organisation.

Sustainability in a social business model is about keeping the business going, paying salaries from consistent revenue, covering daily operational costs, serving communities, and continuing to attract funders while servicing any loans. Sustainability also connects to having clarity on who pays for what, reducing reliance on CSI/CSR funding and building the confidence of investors to support the social enterprise. They define sustainability to include profit generation that leads to financial sustainability, long-term growth and results in increased efforts on commercialisation.

## 5.6.4: Trust

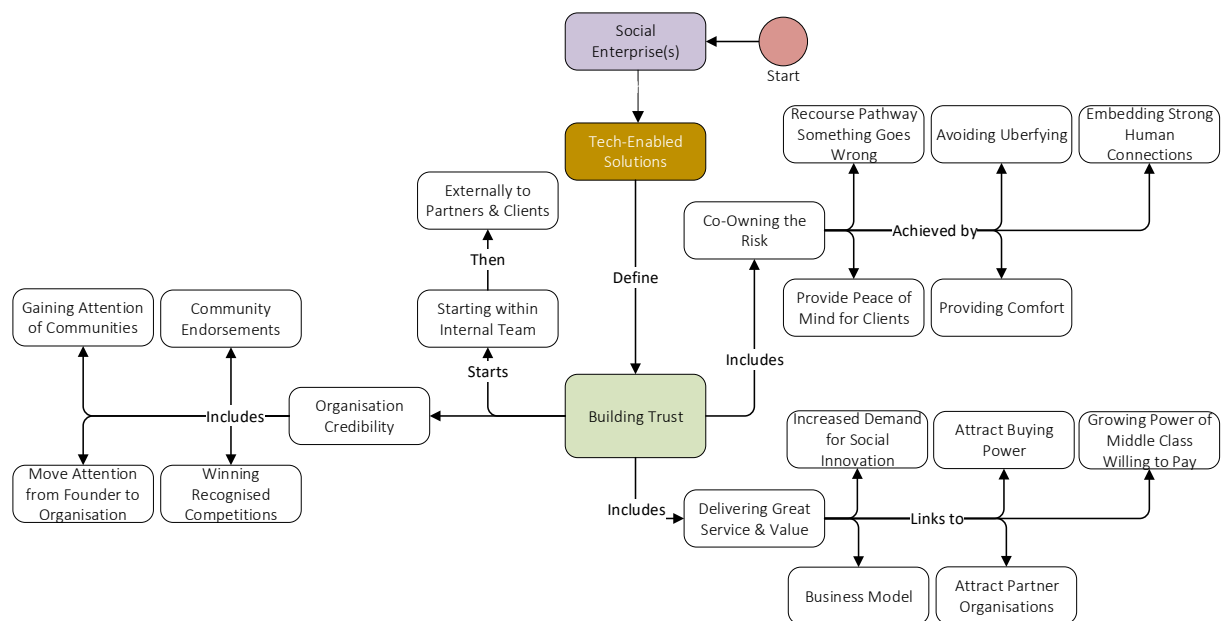


Figure 5—28: Perceptions on Building Trust – Non-Tech SE's

Social enterprises without tech-enabled social innovations define building trust to mean delivering great service and value. Building trust becomes possible through good social business models that can attract the buying power of the growing middle class, leading to increased demand of the social innovation. Building trust is also connected to the organisation's credibility, which includes community endorsements, increased community attention, winning recognised competitions and moving attention away from the founder to the organisation.

Building trust includes co-owning the risk, which can be achieved by providing peace of mind, providing customers with recourse pathways when something goes wrong, embedding strong human connections and providing comfort. One of the founders feels strongly that social enterprises need to avoid trying to uberfy everything. Building trust starts with the internal team and then radiates to external partners and clients.

### 5.7: Digital Technology Scaling Factors

In this section, I attempted to explore ten digital technology scaling factors emerging from social enterprise without tech-enabled social innovations but could only cover five based on data collection. I begin with perceptions on the contribution of digital technology in general. I then explore how the use of digital technologies increases options and introduces new possibilities. I later shifted attention to the interplay between digital technologies and the people for whom they're meant to create value. For the remainder of the section, I explore concepts of virality and ease of replication, a willingness to embrace digital technology, differing degrees of digital innovations and how digital technologies may affect the execution of delivering social impact. I wrap up the section and the case by consolidating comments on the social impact of digital technologies.

#### 5.7.1: Perceptions on Digital Technologies

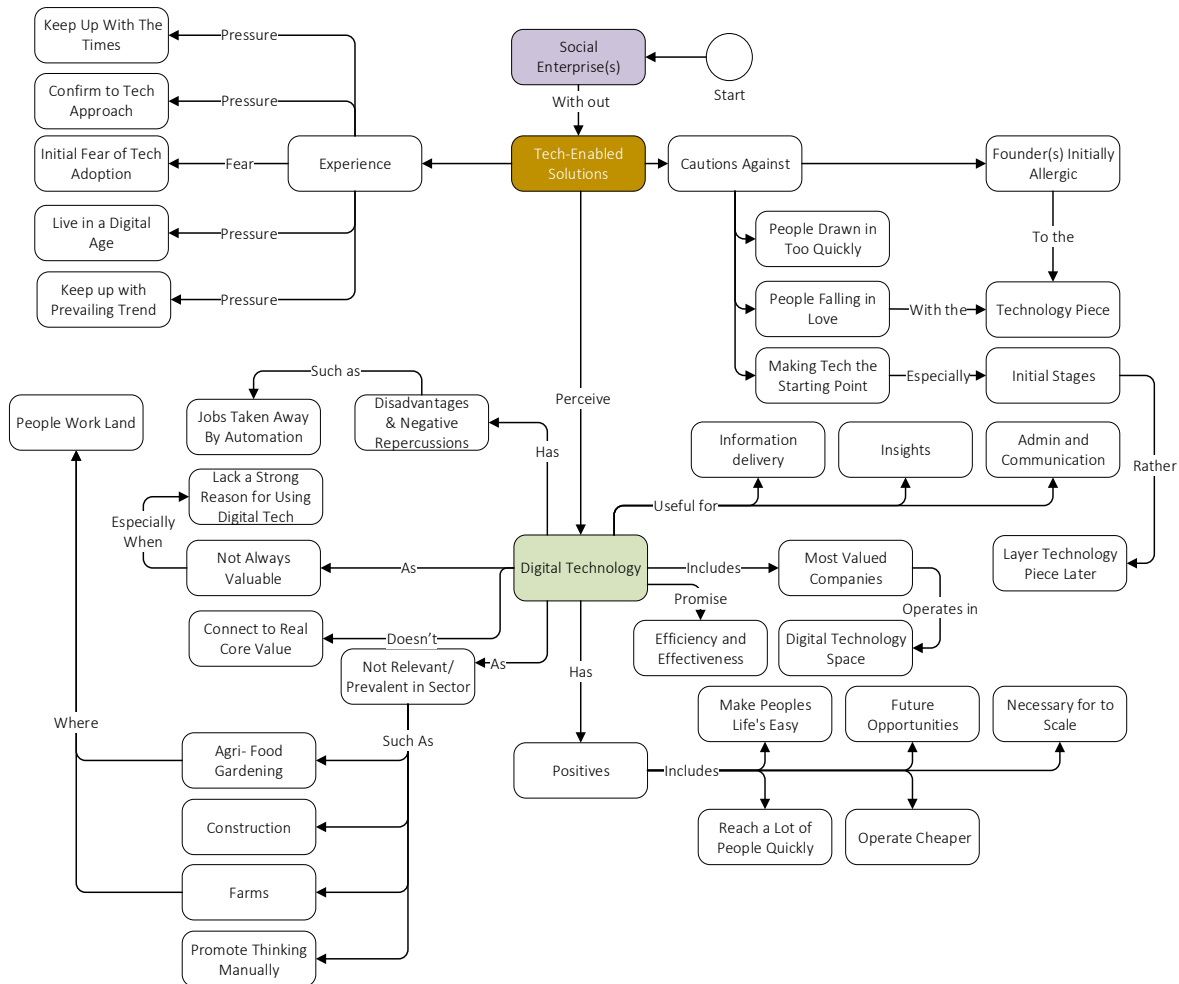


Figure 5—29: Perceptions on Digital Technology – Non-Tech SE's

Social enterprises without tech-enabled social innovations perceive digital technology in the context of scaling social impact to be positive, necessary for scale, operate cheaper, reach a lot of people quickly, make people's lives easier, and position future opportunities. Digital

technology is useful for information delivery, insights, administration, and communication. It generally promises efficiency and effectiveness. Most valued companies globally operate in the digital technology space.

Despite the stated positives, some of the social entrepreneurs highlight that digital technologies are not always relevant to sectors such as agriculture, food, construction and farming, where people need to work the land. It is not always valuable, especially when the use case does not have a strong reason for adoption, it has disadvantages and negative repercussions when jobs are taken away by automation.

These social enterprises also caution against people being drawn too quickly, falling in love with the digital piece and making tech the starting point, especially in the initial stages, rather than layering in the later stages. Equally, founders should not be allergic to tech. These founders experience pressure to keep up with the times, conform to tech approaches, live in a digital age, and keep up with the prevailing trends by adopting tech approaches.

## 5.7.2: Increased Options & New Possibilities

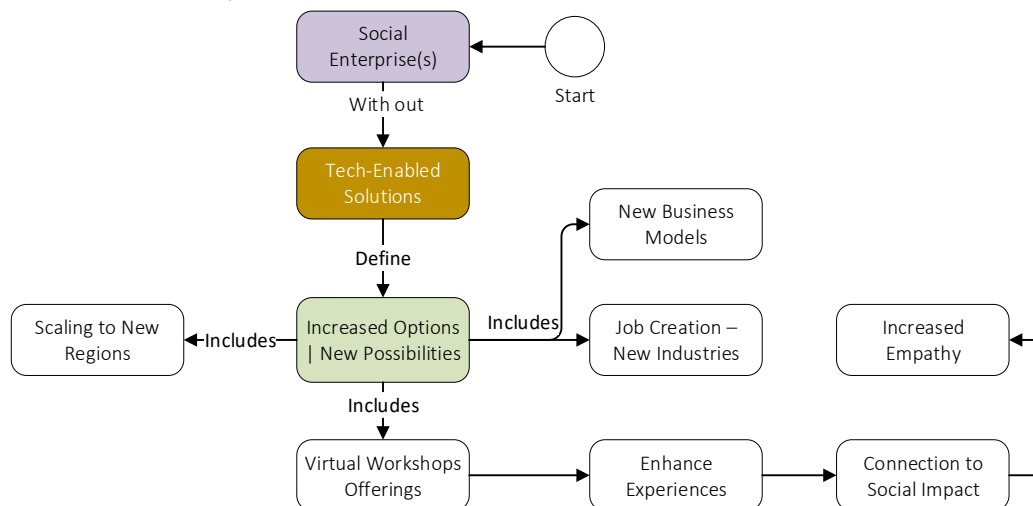


Figure 5—30: Perceptions on new possibilities & increased options – Non-Tech SE’s

Social enterprises without tech-enabled social innovations define increased options made possible by leveraging the digital technology approach to include scaling to new regions, new business models, and offering virtual services like virtual workshops that can enhance experiences, connect people to the social impact and increase empathy. A digital tech approach can also create new industry jobs.

## 5.7.3: Efficiency & Flexibility

There were insufficient comments on efficiency and flexibility in the data for this to be a significant theme within this research. The sub-group social enterprises without tech-enabled social innovations did not comment on this theme.

5.7.4: People-Technology Interplay

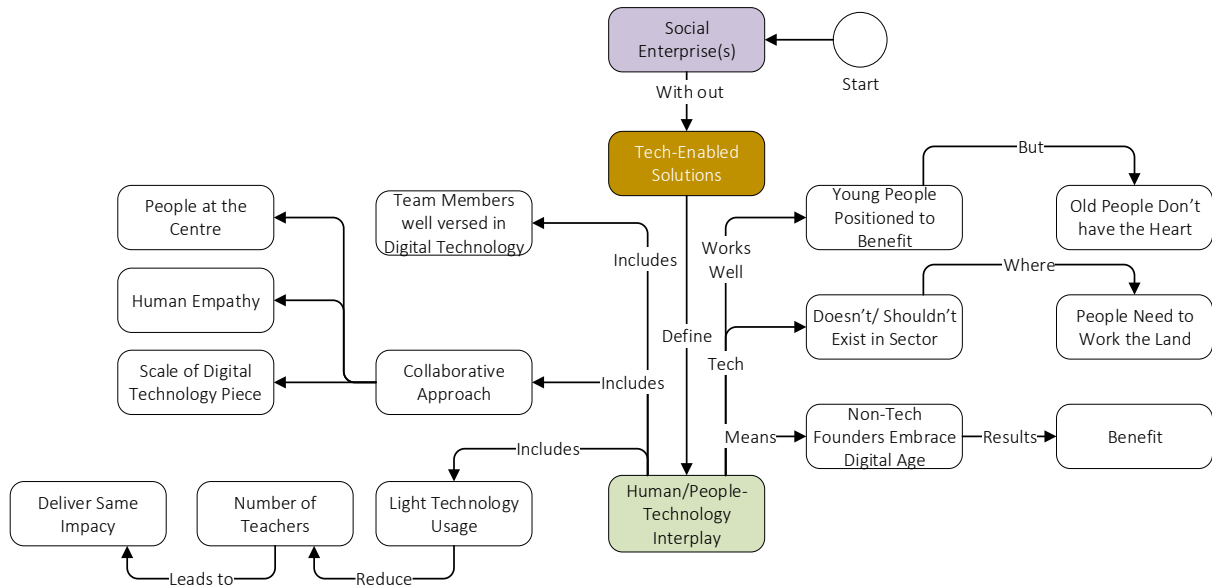


Figure 5—31: Perceptions on People and Technology Interplay – Non-Tech SE’s

Social enterprises without tech-enabled social innovations define Human/People-Technology Interplay to include a collaborative approach of people at the center, human empathy and scale through the digital technology piece. It means having team members who are well versed in the digital technology piece, non-tech founders embracing the digital age to benefit their community, and catering to young people who can benefit from digital technologies while understanding that not all old people would have the heart to learn. One of the founders feels strongly that digital technology does not/shouldn’t exist in their sector and that people need to work the land.

5.7.5: Virality and Replication

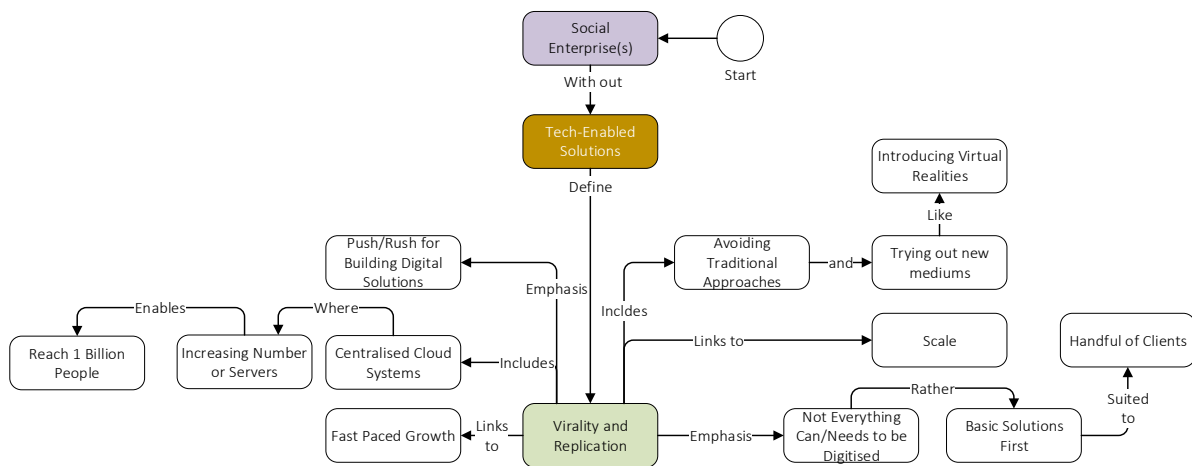


Figure 5—32: Perceptions on Virality and Replication – Non-Tech SE’s

Social enterprises without tech-enabled social innovations define Virality & Replication to link to scale, fast-paced growth, avoiding traditional approaches and trying out new mediums like virtual realities. Virality and replication include leveraging centralised cloud systems where an increasing number of servers enables the organisation to reach 1 billion people. Virality and

replication emphasise the push and rush to building digital solutions, however, one of the founders indicates that everything can and needs to be digitised. Rather, offer basic solutions first that are well suited to a handful of clients.

## 5.7.6: Willingness to Embrace

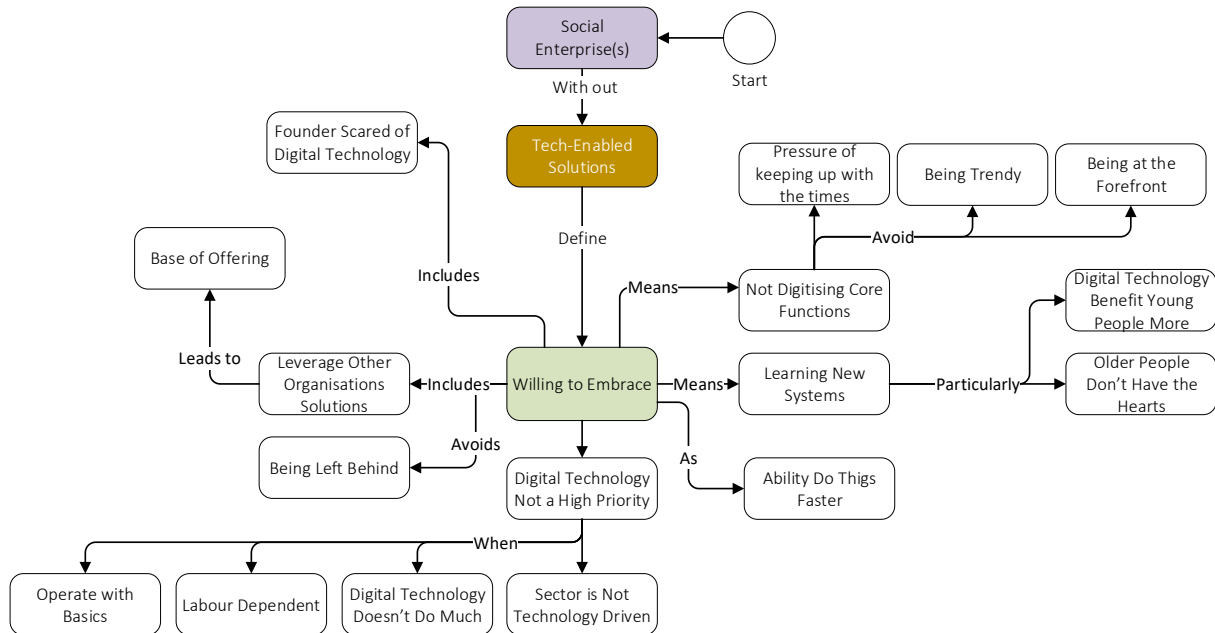


Figure 5—33: Perceptions on Willingness to Embrace – Non-Tech SE's

Social enterprises without tech-enabled social innovations define the willingness to embrace a digital tech approach to link founders being scared of digital technology, not feeling the need to digitise core functions, not buying into the trendiness, not feeling pressure to keep up with the times, and not buying into the idea of being at the forefront. Digital technology does not always have to be a high priority when the sector is not tech-driven, digital technology does not do much, the sector is labour-dependent, and doing the basics creates value.

The willingness to embrace a digital tech approach includes the ability to leverage other organisations' solutions as part of the base offering and the ability to move faster. One of the founders highlights indicates that the willingness to learn new systems is a factor, especially when digital technologies tend to benefit young people more while older people do not have the heart to keep learning.

## 5.7.7: Degrees of Digital Innovation

There were insufficient comments on degrees of digital innovation in the data for this to be a significant theme within this research. The sub-group social enterprises without tech-enabled social innovations did not comment on this theme.

## 5.7.8: Execution Difference

There were insufficient comments on execution differences in the data for this to be a significant theme within this research. The sub-group social enterprises without tech-enabled social innovations did not comment on this theme.

## 5.7.9: Changes through Digital Technologies

There were insufficient comments in the data on changes through digital technologies for this to be a significant theme within this research. The sub-group social enterprises without tech-enabled social innovations did not comment on this theme.

## 5.7.10: The Social Impact of Digital Technologies

There were insufficient comments on the social impact of digital technologies in the data for this to be a significant theme within this research. The sub-group social enterprises without tech-enabled social innovations did not comment on this theme.

## 5.8: Summary of Descriptive Case Study 2 - Social Enterprises Scaling Impact without Digital Technology

In this chapter, I presented findings in the form of an embedded case study (Case 2) to provide a detailed description on scaling strategies for social enterprises without a digital technology as a means of delivering social impact. The chapter opened with outlining the profiles of the 9 social enterprises that formed part of Case 2, after which I explored organisational factors that influence scaling based on the participants views. I then reviewed which scaling models' social enterprises chose and their views on those models, how organisations within the case developed their scaling strategies and key environmental factors they deem important for scaling social impact. In the middle, I go over critical social business model factors such as revenue generation, competitiveness, sustainability and trust. The chapter closes by refocusing on digital scaling factors emergent from social enterprise without a digital technology as a means of delivering social impact.

## Chapter 6: Discussion and Key Learnings

Having provided a rich description in Chapter 4 covering a case on scaling strategies for social enterprises **leveraging a** digital technology as a means of delivering social impact, and a similar description in Chapter 5 covering a case on scaling strategies for social enterprises scaling their social impact **without the use of a** digital technology as a means of delivering social impact.

I then turn my focus to using the Top 10 approach (Yin, 2016) to summarise and discuss the key learnings from insights provided by the 21 participants. This approach is a simple way of choosing. I structure the discussion to align with the sub-research questions shared in the Introduction and research approach and methods section.

1. What is the organisational/founder profile that is likely to adopt a digital technology-enabled social innovation?
2. What are the moderating environmental factors of the South African social economy when considering scale through digital technologies?
3. Which scaling strategies are social impact organisations in South Africa implementing?
4. What scaling factors are considered important by founders of social enterprises?
5. How does digital technology impact the scaling strategies of South African social enterprises?

### 6.1: What is the organisational profile that is likely to adopt a digital technology enabled social innovation?

After evaluating *Figure 5—2: Organisational Structures – Non-Tech SE’s* and *Figure 4—2: Organisational Structures – Digital Tech-enabled SE’s*, which is a summary of comments by participants on from each case, I note that both groups recognise the need to set up and operate a hybrid structure that leverages benefits of the legal framework from each entity this finding is in line with (Wei-Skillern et al., 2006) comments that social entrepreneurship is not tied to a legal structure and the founder or founding team have the flexibility to incorporate the venture using a structure that is best suited to attract suitable resources to take on a social problem.

This is largely driven by the fear that NPOs, NGOs and/or NPCs do not always have the security of funding and need to continuously raise funding, thus putting the organisation in a challenging position with respect to sustainability. Social enterprises with a tech-enabled social innovation recognise that some funders have a mandate to fund only NPCs that can issue section 18As required for a tax benefit.

Trusts as an organisational structure are unpopular for social enterprises from both cases due to changing legislation that has made trusts more unattractive. Both cases conclude that a lack of a single legal framework that recognises social enterprises using a hybrid model creates complexity and leads to a need to register and operate two organisational structures. However, the opportunity to maximise the potential funding pool for scale is more attractive. Since

Santos (2012) argues that social entrepreneurs gravitate towards activities perceived as having a high potential for value creation for communities. Running two organisational structures affirms the view that most of the choices are orientated towards resource maximisation while solving a social need.

When evaluating *Figure 4—3: Legitimacy & Credibility - Digital Tech-enabled SE's* and *Figure 5—3: Legitimacy & Credibility – Non-Tech SE's* which is a summary of comments on legitimacy and credibility by participants on from each case, I note that the social innovation can be a great piece of digital technology for a social enterprises, but building trust, changing perceptions while engaging critical stakeholders is essential in building a positive rapport externally. The social enterprise needs to hold itself accountable for the impact and build processes that can make the M&E easily accessible and tracked. Impact measurement is a vital mechanism of building and maintaining legitimacy and credibility. This finding is aligning with work of Weber and Kröger's (2015) outlining legitimacy and organisational reputational as one of the Top 6 Success Factors for Scaling Social Impact

Credibility is also deeply embedded in the type and quality of brands that the social enterprise associates with. High levels of legitimacy and credibility of a social enterprise increase options for partnerships, which also leads to increased possibilities for the business model and funding prospects.

When evaluating *Figure 4—4: Specialised Domain Skills - Digital Tech-enabled SE's* together with *section 5.2.3*, I note that specialised skills in engineering sciences, information technology and, communication and business science are critical for the success of a social enterprise leveraging digital technology to deliver social impact. In a scenario where the founding team does not have these skills, the social enterprise needs to attract technically skilled people who still hold the mission close to their hearts. This finding aligns with the work of Scheuerle and Schmitz (2016) on factors that inhibit Scaling Social Impact. Scheuerle and Schmitz (2016) conclude that unsuitably qualified workforces are the highest inhibitor for scaling social impact and that social enterprise activities interface with different sectors and usually introduce new approaches and thus need staff with specific skills.

In summary, the key learning from this thesis research is that:

The key elements of the organisation profile that is likely to adopt a digital technology-enabled social innovation are:

1. A founder or founding team with the ability to attract a technically skilled team that connects deeply with the social mission,
2. A core team with domain knowledge in engineering sciences, information technology and communication and/or business science,
3. Competency, talent, and resources needed to build a digital technology,
4. An ability to develop a brand that is credible and trusted by critical stakeholders.
5. Leverages a hybrid structure to maximise the potential funding pool for scale.

## 6.2: What are the moderating environmental factors of the South African social economy when considering scale through digital technologies?

In exploring the environmental factors that are considered important by social enterprises scaling social impact through digital technologies, I will discuss the eight themes that came out of the analysis phase.

### 6.2.1: Social Enterprises Vs Non-Profit Companies (NPC's/NPO's)

When evaluating *Figure 4—25: Consolidated Perceptions of SE's with Tech-Enabled Solutions on Traditional NPOs vs New SE's* and *Figure 5—19: Consolidated Perceptions of SE's without Tech-Enabled Solutions on Traditional NPO vs New SE's*. I note that traditional non-profit companies are perceived to lack funding accountability and depend on annual funding cycles, resulting in a lack of sustainability because of topical funding cycles.

On the other hand, social entrepreneurship is perceived to be at an infant stage, continuously changing and people are optimistic about its future as it continues to gain massive traction and growth. Social enterprises must build clear business cases that are able to generate revenue and monetize impact. These organisations exist in a space where some corporations only want to be associated with social enterprises without funding core activities. The funders want tax benefits through Section 18A, and organisations with the right documentation while also wanting for-profit approaches that are accompanied with a clear business case. While tax benefits from supporting social enterprises weren't a focus point in the literature for this study, Scheuerle and Schmitz (2016) work on factors that inhibit the scaling of social impact highlights inadequate funding structures as a significant factor.

The push to commercialize social ventures develops a business mindset that is focused on sustainability, avoiding a charity mindset while attracting impact investors. Some of the investors in the landscape still desire 10X returns on financial investment, which places a high burden on social enterprises. Even though this sentiment is repeated by different social enterprises, future work could also explore the impact of investors' sentiments on investing in and scaling social impact to get a balanced view and understand the 10X rationale of financial returns. To limit the scope of work for the thesis research, I had to limit the participant pool and not interview impact investors and different types of funders.

For Case 2, In some scenarios, social enterprises are not collaborative enough, resulting in duplicate efforts. The scaling strategy that promotes collaboration is the dissemination of knowledge (Alvord, Brown and Letts, 2004; Dees, Anderson and Wei-Skillern, 2004; Weber and Kröger, 2015). In Case 2, none of the social enterprises are using dissemination despite the fact that it is the least resource-intensive.

The general sentiment from both cases is that solving social issues should be done by building out revenue models through selling value at an affordable price point, crafting commercial

solutions, and solving customer pain points in the context of economic growth in the middle class. This sentiment is echoed by Bloom and Chatterji (2009)'s SCALERS framework for drivers of success in the scaling of the social models. The framework positions earnings generation as having predictive abilities for scaling social impact (Bloom and Smith, 2010). New social enterprises choose hybrid models, resulting in a sense of building a company while simultaneously structuring a non-profit, leading to two sets of financials for the social enterprise.

Both social enterprises and traditional non-profit companies operate in a social sector that is perceived to be highly contextual, fragmented, polarized, and negatively branded due to lingering old-school mentalities. The social sector also lacks a legislative framework to guide funding deployment. Social enterprises without tech-enabled solutions hold the view that the social sector requires partnerships, needs more impact, investors, is experiencing a reduction in CSI budgets and is challenged by the lack of a non-existing legislative framework that impacts fundraising.

## 6.2.2: Funding Landscape and Support Structures.

When evaluating *Figure 4—25: Perceptions on Funding Landscape- Digital Tech-enabled SE's* and *Figure 6—1: Perceptions on Funding Landscape – Non-Tech SE's*, I note that The Funding landscape is not yet well defined and is undergoing changes where early-stage impact funders are putting together seed stage funding pools. The funding landscape is difficult and riddled with misconceptions. The common misconceptions include a sense that it is possible to receive investments on impact returns only, that the government has lots of funding available and that commercial investors are interested in impact-first approaches. Racial background factors matter since the main network circles of funders are predominantly white, which links to corridors of power.

Social enterprises have to develop funding strategies that reduce overreliance on single funders, align to funder motivations, diversify funders & funding activities, target CSI/CSR for early-stage opportunities at the end of corporate financial year and build a good solid business model. This point aligns with the work of Weber and Kröger's (2015) on success factors for scaling social impact which elevate mobilising the necessary resources as a precondition to scaling. The social entrepreneur's ability to mobilise the necessary resources for various despite the perceived funding landscape is important for scaling social impact.

When evaluating *Figure 4—26: Perceptions on Support Structures - Digital Tech-enabled SE's* and *Figure 5—20: Perceptions on Support Structures – Non-Tech SE's*. I note that The Incubators and accelerators operate in a competitive landscape that tends to favor tech-based ideas during the incubation phase. The support structure is a broken ecosystem characterised by high fragmentation, inefficiency, social enterprises falling through the cracks and support gaps where support is heavily weighted towards the early stage with little support for scale/growth phase.

The support structures are dependent on the legal structures of social enterprises, do not really invest in scaling organisations, nor do they provide core funding. In Case 2, These social entrepreneurs recommend that support structures take a 10-year support approach, support structures work together to provide a network of support organisations. The founders also expressed a need for a network of social entrepreneurs.

## 6.3: Which scaling strategies are social impact organisations in South Africa implementing?

To determine the scaling strategies across both cases, I combined Table 10: Scaling Strategies for Case 1 Social Entrepreneurs and Table 12: Scaling Strategies for Case 2 Social Entrepreneurs to build the following table.

*Table 6—1: Consolidated Scaling Strategies*

##	Social Business	Dissemination of Knowledge	Contractual Partnerships	Strategic Expansion	Capacity Building	Systemic Scale
1	SE_Tech_001	No	No	Yes	No	No
2	SE_Tech_002	No	No	Yes	No	No
3	SE_Tech_003	No	No	No	No	No
4	SE_Tech_004	No	No	Yes	No	No
5	SE_Tech_005	No	Yes	Yes	No	Yes
6	SE_Tech_006	Yes	Yes	No	No	Yes
7	SE_Tech_007	No	No	Yes	No	No
8	SE_Tech_008	No	No	Yes	No	Yes
9	SE_Tech_009	No	Yes	Yes	Yes	No
10	SE_Tech_010	Yes	Yes	Yes	Yes	No
11	SE_Tech_011	No	Yes	Yes	No	No
12	SE_Tech_012	No	Yes	Yes	No	Yes
13	SE_Tech_013	No	Yes	Yes	No	No
1	SE_Non_Tech_001	Yes	Yes	Yes	No	No
2	SE_Non_Tech_002	No	Yes	Yes	No	No
3	SE_Non_Tech_003	No	No	Yes	No	No
4	SE_Non_Tech_004	No	Yes	Yes	No	No
5	SE_Non_Tech_005	Yes	Yes	Yes	No	No
6	SE_Non_Tech_006	No	No	Yes	No	No
7	SE_Non_Tech_007	No	Yes	Yes	No	No
8	SE_Non_Tech_008	Yes	Yes	Yes	No	No

This consolidated table shows that across Case 1 and Case 2, strategic expansion is the most common scaling strategy used by South Africa's social entrepreneurs. The second most popular approach is Contractual Partnerships. Dissemination, Capacity Building and Systemic Scale are the least used scaling strategies. It is also interesting to note that no social entrepreneur uses

Dissemination, Capacity Building or Systemic Scale on their own. They are always used in combination strategic expansion or contractual partnership. A key takeaway from this table is the fact that social enterprises mostly choose to a combination of scaling strategies.

## 6.4: Which scaling factors are considered important by founders of social enterprises?

Following from the findings across both cases, the scaling factors considered important are Diversified Earnings Generation, Scale Resourcing, Brand Positioning, Organisational Impact, Partnership and Alliance, Skilled Team, End In Mind, Organisational Reach, Client Centricity and Timing. These are the emerging codes from NVIVO that will become the final code structure.

However, when I start started to analyze this more, I did a second coding, and realized that a further opportunity to regroup and reorganize the codes based on the topmost important things that the social entrepreneurs kept on coming back to

### 6.4.1: Revenue Generation

When evaluating Figure 4—34: Perceptions Revenue Generation - Digital Tech-enabled SEs and Figure 5—24: Perceptions on Revenue Generation – Non-Tech SEs I note that for social entrepreneurs in Case 1, Revenue generation has multiple lenses, such as new business models, financial models, flexible payment structures and upfront payments. But when all is said and done, It is about being able to find paying partners when users do not pay for the service. Revenue enables cash flow, covering operational costs, which results in sustainability and reduced dependencies on sponsors and funders. But this group is also interested in good profit margins needed to attract investors and funders to support the scale.

The social entrepreneurs in Case 1 believe in operating hybrid structures to leverage grants for the initial set-up fees while also acknowledging that the funding landscape is changing and CSI/CSR funding is reducing. Revenue diversification leads to increasing funding options and profitable social innovation that ultimately links to scaling social impact.

Income generated from billing clients regularly is very important to all social enterprises in Case 2 as well. An important conceptualization is that clients purchase the social outcome. This is what investors get attracted to. These organisations want to maximize on income while generating social impact. I had initially thought that profit might come up as a topic but revenue kept on overshadowing everything else. The ability to cover operational costs seems to be the most significant pre-condition to scaling social impact. The revenue would need to grow if the social mission is to expand.

Both Case's orientation towards revenue/income generation is in line with Bloom and Chatterji (2009) SCALERS, which positions Earnings Generation as a driver that can stimulate successful scaling. Both Cases also align with the work of Urban and Bukula (2022), which shows that Earnings Generation is a significant and positive predictor of social enterprise scaling. The

Social Entrepreneurs across both Cases explore varying business models focussed on Earnings Generation as recommended by Urban and Bukula (2022). But Case 2 social entrepreneurs aren't necessarily oriented towards profits generated in line with the advice by Urban and Bukula (2022).

## 6.4.2: Competitiveness

When evaluating Figure 4—35: Perceptions on Competitiveness - Digital Tech-enabled SE's and Figure 5—25: Perceptions on Competitiveness – Non-Tech SE's, competitiveness would not have been my initial thought when hypothesizing about top scaling factor. I would have expected funding, impact investor landscape to come higher. For social entrepreneurs in Case 1, competitiveness includes disrupting supply chains changing value flows, winning on quality and competing for funding sources even if it is a small part of money. These social entrepreneurs sometimes need to compete with traditional NPO's/NGO that are solving the same problem, this is even more challenging when the benefit is being offered for free by NPO's/NGO. This creates a dynamic of donations vs selling social value. These social entrepreneurs need to compete by delivering the best social innovation and the best impact and keeping their finger on the pulse.

For social entrepreneurs in Case 2, competition ties to creating a value proposition for brands and corporates while ensuring sustainability. Some of the founders want to de-emphasize competition and rather embrace collaboration while promoting cross-learning.

The literature explored for this research thesis did not emphasize competition in any of the frameworks explored. Based on the extent to which it featured as a discussion point for both cases of social enterprise groups, Competition seems to be an important factor when considering scaling social impact through the use of digital technologies in South Africa.

## 6.4.3: Sustainability

When evaluating Figure 4—36: Perceptions on Sustainability - Digital Tech-enabled SE's and Figure 5—26: Perceptions on Sustainability – Non-Tech SE's, I note that for social entrepreneurs in Case 1, sustainability is about diversifying revenue sources, choosing hybrid structures, and finding a balance between developing social innovations, sales of those innovations and increasing forms of funding options. The social enterprise needs to make business sense to attract long-term partners. Foundational grants should only be leveraged for the initial phase and in the later stages, profit generation should enable self-sufficiency. Reducing single-source funding, reducing dependency on sponsors/funders, reducing charity-based funded projects, reducing reliance on philanthropy and increasing long-term funding are core to sustainability.

Similarly, in Case 2, these social entrepreneurs are concerned with reducing reliance on CSI/CSR funding and building investors' confidence to support the social enterprise. They want to keep the business going, pay salaries from consistent revenue, cover daily operational costs,

and serve communities while attracting funders while servicing loans. Another interesting take on sustainability is a focus on intergenerational impact by delivering lasting deep social impact.

Santos (2012) highlights that some level of value capture is important to ensure the growth and sustainability of the organisations whose activities create value. In this thesis research, social entrepreneurs closely tie sustainability to earnings/revenue generation and reduction of dependencies on funders. The key takeaway here is that value capture is represented by earnings/revenue generation, which leads the social enterprise to sustainability. This corroborates Bloom and Smith (2010) statement that social entrepreneurial organisations interested in scaling their impact have to manage relationships with multiple stakeholders and have to find ways to mobilize resources and achieve sustainability.

#### 6.4.4: Trust

When evaluating *Figure 4—37: Perceptions on Building Trust - Digital Tech-enabled SEs* and *Figure 5—27: Perceptions on Building Trust – Non-Tech SEs*. I note that for social entrepreneurs in both cases, trust means stakeholder engagement, which links to supporting active and ongoing relationships, making clients feel engaged, building a credible board, designing a good internal organisational culture, and consolidating community relationships. Trust is about organisational credibility, crafting a good rapport, delivering consistent quality, forging partnerships, and changing perceptions. They believe in holding organisations accountable, acknowledging what's broken, avoiding being territorial on social issues and building validation loops.

This finding that elevates trust and legitimacy aligns with Weber and Kröger's (2015) success factors for scaling social impact. Weber and Kröger's explain that Legitimacy is linked to an organisation's ability to acquire resources more easily, which leads, in turn, to greater legitimacy. Social entrepreneurs in South Africa connect organisational trust to credibility and legitimacy, leading to access to resources.

#### 6.5: How does digital technology impact scaling strategies of South African social enterprises?

In exploring the digital technology factors that are important to scaling social impact, the top 10 themes that emerged were on perceptions of digital technology, increased options and new possibilities brought about, a heightened sense of efficiency and flexibility and the intersection of people interacting with digital technologies. Beyond these five themes, the social enterprises in Case 1 also discussed vitality and replication modes, a willingness to embrace, degrees of digital technology, execution differentiation, changes brought about by digital technologies and the overall social impact of digital technology on social impact.

## 6.5.1: Perceptions on Digital Technology

When evaluating Figure 4—39: Perceptions on Digital Technology - Digital Tech-enabled SEs and Figure 5—28: Perceptions on Digital Technology – Non-Tech SEs, I note a similar caution against a technology-first approach by both across both cases. The key principle is that digital technology is not valuable on its own, and it is less important than the human element or the human heart. It is important not to fall in love with the digital piece and make tech the starting point. In Case 2, one of the founders highlights that digital technologies are not always relevant in sectors such as agriculture, food, construction, and farming, where people need to work the land.

This sentiment is contrasted against the majority view that perceives digital technology in the context of scaling social impact as a positive element that is necessary for scale, reduces the cost of operation, enables wider reach quickly, makes people’s lives easier and positions future for the organisation opportunities. The social enterprises in Case 1 perceive digital technology in the context of scaling social impact as a tool, an enabler, a vehicle and an alternative medium. Digital technology particularly thrives in appropriate contexts if it is simple and good enough, does not break easily, does more heavy lifting and is ultimately essential for the business model.

## 6.5.2: New Possibilities & Increased Options

When evaluating Figure 4—40: Perceptions on new possibilities & increased options - Digital Tech-enabled SEs and Figure 5—29: Perceptions on new possibilities & increased options – Non-Tech SEs, I note that in Case 1 digital technologies lead to new possibilities resulting in new business models. e.g., offering virtual services like virtual workshops that can enhance experiences, connect people to the social impact and increase empathy. It is also possible to collect data passively and actively, ensuring that the social enterprise can know where what and how to scale through gaining granular insights and a better understanding of people and their environment. Increased options and new possibilities also manifest through the ability to offer initially impossible feature sets such as Offline e-learning with no data costs through the school’s content hosted on edge routers or granular customer segmentation, which enables product offering tiers, customer income groping and clarity on multiple sectors through extensive data.

In Case 2, I note a consistent sentiment about how leveraging the digital technology approach facilitates scaling to new regions and brings about new business models, such as offering virtual service like virtual workshops that can enhance experiences, connect people to the social impact and increase empathy.

## 6.5.3: Efficiency & Flexibility

When evaluating Figure 4—41: Perceptions on Efficiency and Flexibility - Digital Tech-enabled SE’s, I note efficiency and flexibility present in the form of fast & easy access to social innovation for users, fast development time can lead to increased features, multi-version

releases, and increased frequency of product versions. Efficiency also manifests Self-Managed or User Self Reliance, which leads to users driving the outcomes, user autonomy and the ability to access the social innovation at their own time, increased regular access to the platform without tangible business costs. None of the Case 2 Social entrepreneurs discussed Degrees of Digital Innovation.

## 6.5.4: People-Technology Interplay

When evaluating *Figure 5—22: Perceptions on People and Technology Interplay – Non-Tech SE's*, I note that people-technology interplay means a collaborative approach with people at the centre, elevating human empathy as the organisation scales through the digital technology piece. None of the Case 2 social entrepreneurs discussed Degrees of Digital Innovation.

## 6.5.5: Virality and Replication

When evaluating *Figure 4—43: Perceptions on Virality and Replication - Digital Tech-enabled SE's* and *Figure 5—24: Perceptions on Virality and Replication – Non-Tech SE's*, I note that Virality & replication are possible when digital social innovations are simple, well-built, intuitive, require no training, do not overwhelm people, are well designed, cheap and maintain peoples dignity.

## 6.5.6: Willingness to Embrace

When evaluating *Figure 4—43: - Digital Tech-enabled SE's* and *Figure 5—25 and Perceptions on Willingness to Embrace – Non-Tech SE's*. I note that the founders in Case 2 discuss fearing digital technology, not feeling the need to digitise core functions, not buying into the trendiness, not feeling pressure to keep up with the times, and not buying into the idea of being at the forefront as an alternative view of the willingness to embrace.

In contrast, Case 1 founder exudes excitement about digital technology and discusses ideas of building tech into the underlying business plan, continuous innovation, opportunities for multi-product strategies, ability to pivot easily, ability to learn quickly, do things faster, ability to leverage other platform solution and build on top of them.

Difference in execution that technology affords social entrepreneurs includes a higher level of efficiency in delivery, the introduction of gamification elements into social impact work, avoiding event-driven engagement, and implementing deeper engagement that enables user-customised, dynamic and specific content delivery.

## 6.5.7: Degrees of Digital Innovation

When evaluating *Figure 4—45: Perceptions on Degrees of Digital Innovation - Digital Tech-enabled SE's*, I note that in Case 1, social entrepreneurs favour hyper-low technologies, social innovations that are easy to use, reduce complexity, focus on simplicity, avoid high-tech, are non-specialised and easy to replicate. The chosen degree of digital innovation has to be context-relevant for the developing world, emphasising wider adoptions through trust

networks. These founders view low degrees of digital innovation at the starting phase as an opportunity space for future use cases that can offer extensive customisation at a later stage and position for multiple applications. None of the Case 2 Social entrepreneurs discussed Degrees of Digital Innovation.

## 6.5.8: Execution Difference

When evaluating *Figure 4—46: Perceptions on Execution Difference - Digital Tech-enabled SE's*, I note that this group can execute the delivery of impact differently with a higher level of efficiency in delivery, the introduction of gamification elements, avoiding event-driven engagement, implementing deeper engagement that enables user customised, dynamic and specific content delivery. The tech-enabled approach enables these social enterprises to execute in a way that was considered impossible through new approaches, through digital education access, by allowing tech to do the heavy lifting, and for tech to assist in engaging stakeholders. None of the Case 2 social entrepreneurs discussed execution differences.

## 6.5.9: Changes through Digital Technologies

When evaluating *Figure 4—47: Perceptions on Changes through Tech - Digital Tech-enabled SE's*, I note that trends like increased smartphone penetration led by access to Android devices, the need for usage profile data, reducing cost of cellphones, the need to incorporate better solutions from tech partners, avoiding creating everything from scratch and drive for continuous change linked to product direction and business model have set the ground for social entrepreneurs to scale better. Changes through tech adoption positions enable these businesses to be the cheapest instead of building the most perfect solutions. None of the Case 2 social entrepreneurs discussed execution differences.

## 6.5.10: The Social Impact of Digital Technologies

When evaluating *Figure 4—48: Perceptions on Social Impact of Tech - Digital Tech-enabled SE's*, I note that the digital tech approach enables social impact through its ability to change mindsets, solve social issues at scale, serve population well, work on large problems, facilitate access for lots of people and multi-stakeholder value creation. Through the self-service-based approaches, social enterprises can generate cost-effective engagement, generate multiple interactions and easily evidence impact created and understand it.

## 6.5.11: Summary : How does digital technology impacts scaling strategies

In Summary, the Top 10 key learning on how digital technology impacts scaling strategies are: **Digital technology** has a positive impact on scaling strategies for social impact because:

1. It positions well as a tool, an enabler, a vehicle, and a medium for social impact delivery
2. It provides increased options, new possibilities for new business models, and impact delivery and execution approaches that would have been considered impossible initially.

3. It does the heavy lifting when positioned in the appropriate context, is designed to be simple and good enough, and does not break easily, which can be essential for the business model.
4. It provides efficiency and flexibility, resulting in a quicker go-to-market, user self-reliance, users driving the outcomes, user autonomy, the ability to access the social innovation on their own time, and increased regular access to the platform without tangible business costs.
5. It may lead to positive people-technology interplay, enabling a collaborative approach when putting people at the center and leaning into human empathy.
6. It makes it possible to have repeatable, frequent engagement and regular access with reinforcing cycles through a mobile-first approach, resulting in a lower resource effort per unit when pushing scale, irrespective of the physical organisation's reach.
7. It leverages changing trends like increased smartphone penetration, reduced cost of cellphones and data, and increasing tech adoption to provide the cheapest solution instead of building the most perfect solutions.
8. It solves social issues at scale by facilitating access for a higher population group in a cost-effective manner while evidencing social impact.
9. It enables replication when digital social innovations are simple, well built, intuitive, require no training, do not overwhelm people, are well designed, cheap and maintain people's dignity,
10. It can collect data passively and actively, ensuring that the social enterprise can know where what and how to scale through gaining granular insights and a better understanding of people and their environment.

## 6.6: Summary of Discussion and Key Learnings

In this chapter, I focused on using the Top 10 Approach (Yin, 2016) to summarise and discuss the key learnings from insights provided by the 21 participants. The discussion chapter was set up to answer the sub-research questions:

1. What is the organisational/founder profile that is likely to adopt a digital technology-enabled social innovation?
2. What are the moderating environmental factors of the South African social economy when considering scale through digital technologies?
3. Which scaling strategies are social impact organisations in South Africa implementing?
4. What scaling factors are considered important by founders of social enterprises?
5. How does digital technology impact the scaling strategies of South African social enterprises?

## Chapter 7: Summary, Conclusion & Recommendations

In this final chapter, I share my personal reflections on my journey of doing an MPhil, key lessons, takeaways, skills gained and how this positions me to be a better practitioner within the social impact landscape. I also provide a summary and conclusion for the content of this thesis and end with my recommendations for future research.

## 7.1: My Personal Reflections

In 2017, I started a new personal journey with a career change to become a social entrepreneur and build an impact venture. I had a sense of conviction that I should dedicate ten years of my life to searching for purpose, meaning and impact in my work. Doing the MPhil in Inclusive Innovation while building and scaling a healthcare social venture nationally and into two neighbouring countries has been a challenging endeavour.

My personal mission is to develop, promote, and scale inclusive technologies to solve the challenges of access to healthcare in Southern Africa. The chosen research topic of exploring scaling strategies for social innovations aligned well with my mission. The process of Interviewing 22 Social Entrepreneurs building extraordinary social ventures in 2018/2019 was so rewarding; the insights from those conversations have shaped how I have gone about scaling our Pelebox Smart Lockers. I found myself spending more time implementing the scaling strategies in my social enterprise rather than writing out the thesis analysis, and it was as if I was doing action research.

My professional curiosity, which led me to this MPhil Journey, has been rewarded with the rich, detailed, informative and transformative knowledge gained from the contact sessions with social entrepreneurial founders. I now have such great appreciation for academia, the rigour, the knowledge communities, and the process of incremental knowledge creation.

My first Master's in Engineering now seems so simple compared to doing qualitative research at the intersection of social science and business. Doing and writing this thesis has tested me in ways I did not think possible. I've learned to be resilient, to see things through, to push myself and fight for the finish line. I have an extroverted personality that loves being with people and building things with my hands. The unbearable loneliness of sitting in a quiet room reading or typing felt like torture at the beginning, but now it has converted to a balanced love affair with reflective solitude.

Completing this thesis research has developed my research skills, introduced more structure to my knowledge development process, and equipped me with the ability to find almost anything I want to know about. These skills have already yielded results in my grant funding proposal writing. Armed with insights on scaling strategies, I close this chapter and return to being a full-time practitioner and social entrepreneur living out the Praxis of this thesis with an ambition to scale Pelebox Smart Locker and other future digital technology-enabled social innovations to reach 10,000 communities and impact 10 million people over the next 20 years.

**“A charity dollar has only one life; a social business dollar can be invested over and over again.”**

*— Muhammad Yunus*

## 7.2: Summary and Conclusion

Through this thesis research, I set out to provide a detailed description of the role of digital technology in scaling social impact in South Africa by exploring the landscape of technology-enabled social entrepreneurship, determining the strategies and factors that enable scaling social impact and painting a picture of how social entrepreneurs use digital technology to scale social impact in their target communities. I set out to answer the research question: How do social entrepreneurs in South Africa leverage digital technologies to scale social impact by expanding it into five sub-questions?

In the **first sub-question**, I set out to develop an organisational profile likely to develop a digital technology-enabled social innovation. From my data, the five key elements of the organisation profile are:

- A founder or founding team with the ability to attract a technically skilled team that connects deeply with the social mission or to the social issue.
- A core team with domain knowledge in engineering sciences, information technology, communication and business sciences.
- Competency, talent, and resources needed to build and operate a digital technology.
- An ability to develop a brand that is credible and trusted by critical stakeholders.
- A hybrid organisational structure that can maximise the potential funding pool for product development and scale.

In the **second sub-question**, I set out to uncover the moderating environmental factors of the South African social economy when considering scale through digital technologies. I conclude the three most significant moderating factors to be:

- A positive perception of social enterprises' abilities to build revenue models, generate revenue, monetize impact and become financially sustainable.
- A fragmented funding landscape that is difficult and riddled with misconceptions prompts social enterprises to build a diversified funding strategy.
- A support structure of incubators, accelerators and corporates that tends to favour tech-based ideas in the early stage.

The remaining moderating environmental factors are scale partners, community, digital infrastructure, skills & talent and the founder(s) race.

In the **third sub-question**, I set out to uncover the scaling strategies implemented by social enterprises across South Africa. Strategic Expansion is the most common scaling strategy used by South African social entrepreneurs, and Dissemination, Capacity Building, and Systemic Scale are the least used scaling strategies. I also conclude that social enterprises mostly choose a combination of scaling strategies instead of using one approach.

In the **fourth sub-question**, I set out to determine the scaling factors considered important by founders of social enterprises. Data suggested revenue generation, competitiveness, sustainability, and trust to be the four main factors that founders deem important for scaling.

In the **fifth and last sub-question**, I set out to explore how digital technology impacts on scaling strategies of South African social enterprises. I conclude that **digital technology** has a positive impact on scaling strategies for social impact because:

- It positions well as a tool, an enabler, a vehicle, and a medium for social impact delivery.
- It provides increased options, new possibilities for new business models, and impact delivery and execution approaches that would have been considered impossible initially.
- It can do the heavy lifting when positioned in the appropriate context, is designed to be simple and good enough, and does not break easily, which can be essential for the business model.
- It provides efficiency and flexibility, resulting in a quicker go-to-market, user self-reliance, user-driven outcomes, user autonomy, the ability to access social innovation on their own time, and increased regular access to the platform without tangible business costs.
- It may lead to positive people-technology interplay, which enables a collaborative approach when putting people at the centre and leaning into human empathy.
- It makes it possible to have repeatable, frequent engagements and regular access with reinforcing cycles through a mobile-first approach, resulting in a lower resource effort per unit when pushing scale, irrespective of the physical organisation's reach.
- It leverages changing trends like increased smart phone penetration, reducing the cost of cellphones and data, and increasing tech adoption to provide the cheapest solution instead of building the most perfect solutions.
- It can solve social issues at scale by facilitating access for a larger population group in a cost-effective manner while evidencing social impact.
- It enables easy replication when digital social innovations are simple, well built, intuitive, require no training, do not overwhelm people, are well designed, cheap and maintain people's dignity,
- It can collect data passively and actively, ensuring that the social enterprise can know where, what and how to scale through gaining granular insights and a better understanding of people and their environment.

It is my hope that the descriptive richness of this thesis can help other social entrepreneurs when crafting their own scaling strategies in future.

**“A little bit of good can turn into a whole lot of good when fuelled by the commitment of a social entrepreneur.”**

*– Jeff Skoll, Founder the Skoll Foundation*

## 7.3: Recommended Future Research

In this section, I present four recommendations for future research that I think can enhance knowledge and practice within the field of social entrepreneurship with regard to scaling social impact.

1. **How are South African social enterprises scaling impact through a Systems Change approach post Covid 19?** Scaling impact through an organisational model has certain limitations and a system change approach can provide alternative models of reaching more communities through a social innovation that is not positioned at an organisational level but rather driven by an ecosystem that wants a social issue addressed. The social impact community can benefit from an in-depth qualitative study looking at the implementations of system change with a clear focus on enabling factors that lead to successful systems change, as opposed to organisation-level scaling strategies like dissemination of knowledge, contractual partnerships, strategic expansion, and capacity building. A systems change approach to scaling social impact presents a non-organisational framing that goes beyond the control of the founders and introduces an ecosystem effect. This future work recommendation would add to the bodywork on scaling through an ecosystems approach, as highlighted by Milligan, Rayner, Thorogood, Bonnici and Saez (Milligan et al., 2017).
2. **An exploration of factors that inhibit scaling social impact for South African social entrepreneurs.** Following on from the framework produced by Scheuerle and Schmitz (2016), I recommend a study that provides a detailed and comprehensive analysis of barriers faced by South African social entrepreneurs to provide needed guidance for policymakers, the impact investor community, corporate funders, academic institutions, and foundations supporting individuals who are trying to solve complex global social problems.
3. **A national survey of social enterprises in South Africa on perceived moral intensity.** As social entrepreneurship grows in importance and relevance for South Africa, I recommend a comprehensive study that would provide an in-depth analysis of origin stories by social enterprises and map out the “moments of obligation<sup>5</sup>” leveraging the Perceived Moral Intensity framework developed by Morris & McDonald (2013). This study would also build on the work of Smith, Kistruck and Cannatelli (2016), focusing on individual-level factors that affect the decisions to scale social impact and contextualise this for South Africa while contributing to knowledge on why people choose to start and scale social enterprises.

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“People who successfully tackle big social, environmental, and economic problems are driven by what I call a *moment of obligation* — a specific time in their life when they felt compelled to act. These moments become their North Star; they keep them going in a positive direction when everything seems dark. The obligation is not only to the world but also to *themselves*” by Lara Galinsky

4. **Impacting the lives of a million people - a study on the most effective social impact scaling strategy in South Africa.** This research study did not focus on measuring the impact reach of the social enterprise to provide any inference on the success of the scaling strategy chosen. I recommend a future study that would search for top performing 25 to 35 South African social enterprises in terms of social impact delivered, investigate the scaling strategies used (in line with Table 1) and the associated factors for success (in line with Table 3). This research would guide practitioners in building social enterprises that impact the lives of millions of people by learning from the top-performing organisations and sharing what they did well.

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## Appendix A: Inhibiting factors for scaling up the impact of SEOs in Germany

Table A—1. Inhibiting factors for scaling up the impact of SEOs in Germany

	Scaling up pre(condition)	<b>Willingness</b> Dominant influence of cognitive frames	<b>Ability</b> Dominant influence of social networks	<b>Admission</b> Dominant influence of institutions
Inhibiting factor level				
<b>Leaders</b>		- Risk aversion (6) - Perceived threat for social mission (7) - Preference for independence and autonomy (7) - Demotivating changes of organisational culture (3)	- Lacking business administration skills (3)	
<b>Organisation</b>		- Demotivating changes of organisational culture (3)	- Organisational dependency on leaders (9) - Overstraining requirements to staff members (5) - Missing (local) embeddedness (9) - Increasing overhead structures and costs (5) - Difficulties in impact demonstration (6)	- Non-entrepreneurial social legislation and public utility laws (7)
<b>Ecosystem</b>		- Hesitance to provide private capital for scaling up (8)	- Tight financial budgets of local municipalities (4) - Unsuitably qualified workforce (12)	- Inadequate public welfare system funding structures (10)

## Appendix B: Introductory Email to Participants

Dear Participant,

My name is Neo Hutiri, a postgraduate student at the Graduate School of Business at the University of Cape Town doing a Masters in Philosophy - Inclusive Innovation.

My area of research is scaling strategies for social impact. The research aims to understand the role of digital technology in scaling social impact in South Africa. I wish to invite you to take part in the research study which seeks to gain insights into how technology plays a significant role in scaling strategies for social enterprises.

I would love to engage you and other social entrepreneurs, impact investors and academics who are actively scaling their social ventures or have a contribution to make to the conversation on scaling social impact in South African communities through a face-to-face interview. The interview will be between 50-70 minutes each. Interviews will be held at a location that is convenient and provides a secure space to engage this topic.

Your participation is voluntary. You will not be requested to supply any identifiable information, ensuring anonymity of your responses. Furthermore, your identities will not be disclosed, nor will your names be published in the research report. This research has been approved by the Commerce Faculty Ethics in Research Committee. You can also choose to withdraw from the research at any time should you wish.

I would love to have you participate in this research journey in shaping the study. Please contact me should you have additional questions. Feel free to call, text or email me.

Kind regards

**Neo Hutiri**

BSc Eng (Electrical Engineering) (UCT), MEng (Industrial Engineering) (Wits)

UCT Graduate School of Business | MPhil Student | Inclusive Innovation

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## Appendix D: Sample Articles about a Social Enterprise

### Background Article 1 on SE\_Tech\_001

Article Title: [REDACTED] device to help the deaf garner accolades

Publisher: Go! Express

Author: Siphokazi Vuso

Date: 2019 August 09

#### Content:

Members of the deaf community and those who have hearing challenges and the hard-to-hear community will soon be able to easier navigate their surroundings, thanks to an invention by Walter Sisulu University (WSU) accountancy graduate [REDACTED], 33. [REDACTED] has invented a wristband – “[REDACTED]” – that sends a sound to its communicates sound to the user via vibrations and colour-coded LED lights. He said the device was inspired by his aunt, who had always had hearing challenges. been hard of hearing. THE DEVICE came from his affection for his aunt who had always been hard of hearing. “My aunt lip-reads to fully understand what people around her are saying.

“In the family, we’ve always had to speak extremely loud when talking to her and I also realised that her condition wasn’t accommodated in the city, so I started the device with her in mind,” concerning myself with her,” he said.

However, [REDACTED] quickly realised came to realise that his invention might be a bitter pill to swallow, the pill for his concerns was not only a bitter one, but also hard to swallow, when he discovered that the costs would be too exorbitant. . and intrusiveness that came with relieving his aunt’s condition.

“To solve my aunt’s problem, I looked for devices she could use but all the devices that were available were too expensive and intrusive, meaning surgery had to be performed to insert a speaker inside a person’s inner ear,” [REDACTED] said. That is when he took up the quest to invent a cost-effective device that would help people who were deaf, or hard of hearing. Unfortunately, lack of capital proved a recurring stumbling block. “The device we developed at the time for demonstrations wasn’t enough for us to use as proof of concept and we had to raise more funding. “So we took part in entrepreneurial competitions to raise funds,” said [REDACTED]. The entrepreneurial competitions not only earned him the financial capital needed for his invention, but accolades such as the GAP ICT Award and the SAB Foundation Social Innovation Award.

“Through cash prizes won in these competitions, we developed [REDACTED]’s very first proof of concept which enabled us to raise funding that has been used to develop the [REDACTED] product to where it is today,” [REDACTED] said. This year at the Africa Innovation Summit which took place in Rwanda, Senso was selected as one of the Top 50 African Innovations.

Source Link: [shorturl.\[REDACTED\]](https://shorturl.org/[REDACTED])

## Background Article 2 on SE\_Tech\_001

**Article Title:** This local guy created a device that helps deaf people 'hear' crucial sounds

**Organisation:** News 24

**Author:** Lesego Maja

**Date:** 2019 December 12

### Content:

A baby crying, a doorbell ringing and a fire alarm sounding. These are all sounds that deaf people can't pick up, but with his invention [REDACTED] (34) wants to make this a thing of the past. It is the first of its kind in the world. A wearable device similar to a smart watch that's able to help deaf people identify important sounds they would otherwise miss.

The [REDACTED] device has three buttons – a power button and two that can be used to coordinate up to five different sounds with colours that flash in the form of an LED light. "For example, you can coordinate a doorknob with orange, a safety evacuation alarm with red or a forced entry sound with green. So, when the device picks up the sound it vibrates and shows a blinking LED light that reflects the sound," [REDACTED] tells YOU.

The user can also set the desired vibration intensity. "If you know you're a deep sleeper, you can set the device to a more aggressive vibration," he adds. The device, [REDACTED] says, has been developed in a way that gives it an accuracy rating of between 98% and 100%. His inventions was inspired by his deaf aunt and noticing how people communicated with her as well as his concern for her safety since she couldn't hear what was going on around her.

As he got older, [REDACTED], who graduated from Walter Sisulu University, made it a point to find a device that could assist his aunt. "I looked into devices she could possibly use and I couldn't find one, so that was the beginning of the journey." In a classic case of being the change you want to see, he watched YouTube tutorial after tutorial and taught himself how to design the original interface of the device, working with a software engineer to put the electronic components together.

The first prototype was a far cry from the portable product. It was as big as an 11-inch laptop, [REDACTED] says. But regardless of size, the innovation was brilliant enough to catch the attention of potential investors. "We used that to pitch to the South African Breweries Foundation and they saw the vision and supported us. Then we started fine-tuning it." And after many upsets since 2014, including software problems, lack of funding and going days without eating – a brainchild was born and patented in South Africa in 2016.

[REDACTED] says to date his company, [REDACTED], has filed patents in more than 40 countries and has been given the all-clear by the Independent Communications Authority of South Africa (Icasa). "We are approved by Icasa that our device does not emit electromagnetics that would in the long term cause illnesses like cancer. It also does not disturb the towers that we have in South Africa," he explains.

"We also achieved the same status in Europe and the next stage would be to test in the US because we've received a lot of interest there," he adds. [REDACTED] says his company completed the prototype development in June and has been setting up for manufacturing since July. "We already have a number of NGOs and government departments locally and internationally as well as private companies that have expressed interest. But we also want to make sure that the device is available for anyone who wishes to use it."

The projected price of the device when it hits the market is about R4 500, and like many electronics, [REDACTED] says, its lifespan would be two to three years depending on usage.

He says making it affordable and accessible to the deaf community was his aim and the company is looking to partner with entities like medical aid schemes to make it available in other ways, and to give the people who need it most options of payment arrangements.

“The people in the deaf community really kept me going when it was really tough and I feel like I’m giving them a sense of hope. I want this product to end up in the hands of the people who really need it. “We want to make sure that we have communication. I want to use [REDACTED] to break boundaries between the deaf and the hearing communities.”

[REDACTED] has received a number of accolades since its inception, and last year Zuko was a part of the Red Bull Amaphiko Academy, which offers support to grassroots social entrepreneurs.

Source Link: [shorturl.\[REDACTED\]](http://shorturl.[REDACTED])

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## Background Article 3 on SE\_Tech\_001

Article Title: Healer [REDACTED]

Organisation: TYI 100 Awards 2019

Author: Could not source information

Date: Could not source information

### Content:

“I saw the device in my mind and in my heart so many times that every challenge we've gone through wouldn't have stopped me from seeing this device come to life in a physical form”. A young entrepreneur hailing from the Eastern Cape has developed an innovative wrist armband for millions of deaf and hard-of-hearing individuals as a springboard to venture into business.

[REDACTED] says flagship product, [REDACTED], works by picking up sounds and communicating them to the user through vibration and colour-coded LED lights. The device, he says, provides the convenience of alerting through vibration and light instead of sound, which can be distorted in the presence of other external noise.

[REDACTED] will be able to help four million hearing-impaired people in South Africa and 360 million abroad. [REDACTED] says the idea to develop the device was sparked by a family member with a hearing impairment. “I was concerned for her missing out on life-saving sounds as she was always alone during the day while everybody was at work,” says [REDACTED].

He says he then started looking around for devices she could use but they were too expensive and intrusive. This prompted him to come up with his own innovative solution to the problem - [REDACTED].

The Walter Sisulu University accountancy graduate has travelled to Ghana, Rwanda, China, Switzerland, Austria and Sweden. In 2013, [REDACTED] won the Gauteng Accelerator Programme ICT award in 2013 and the SAB Social Innovation award in 2014. Senso was also selected among Top 50 African Innovations at the African Innovation Summit in Rwanda in June.

Recently, [REDACTED] was handpicked by the Red Bull Amaphiko Academy, among 16 of the top social entrepreneurs in the country, to attend their in-house training course, and benefited from a one-on-one mentorship programme.

The entrepreneur says [REDACTED], is currently focusing on helping people be more alert and connected to life-saving sounds in their homes, offices and classrooms.

[REDACTED] says they are also keeping a close eye to new and emerging Fourth Industrial Revolution technologies and stresses that there will be more innovations to keep up with the changing needs of Senso's customers.

Source Link: [shorturl.\[REDACTED\]](#)

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## Background Article 4 on SE\_Tech\_001

Article Title: SA entrepreneur will help people with hearing disabilities through new invention

Organisation: Could not source information

Author: Dhivana Rajgopau

Date: May 27, 2018

### Content:

DURBAN - [REDACTED] [REDACTED] start-up company Senso creates sound assistive tools to help people be more present and alert to life-saving sounds.

The company's flagship product is a wrist armband that picks up sounds. The sounds are then communicated to the user through vibration and LED lights.

[REDACTED] said that the inspiration for starting [REDACTED] was his aunt who was hard of hearing. He would always be worried about her when she visited Johannesburg and it was his dream to develop an affordable, unintrusive product that she could use. Then he decided to create a solution that would address the challenges that his aunt and other people on the African face.

The funding for the company comes from entrepreneurial competitions that they have won. They have won entrepreneurial competitions that have been run by The Innovation Hub, Multichoice, South African Breweries Foundation and the Department of Trade and Industry.

[REDACTED] said that product development for [REDACTED] has been completed and their next step is to get statutory approvals as well as mass production and soft launches.

Different iterations of the product have been tested through user groups in various segmentations. Then the feedback would be used to improve the device.

According to [REDACTED], he studied banking and worked in the banking sector. However, he has also completed courses on Innovation Leadership and attended masterclasses in innovation, customer development and business management at The Pioneers in Austria.

Source Link: [shorturl.\[REDACTED\]](#)

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## Background Article 5 on SE\_Tech\_001

Article Title: [REDACTED]®

Organisation: Innovation Bridge

Author: Not Known

Date: Not Known

Content:

[REDACTED]® : Lifesaving Tech for Deaf and Hard Of Hearing Designed specifically for the hearing impaired the [REDACTED]® is a wrist-wearable device that detects life-threatening sounds and alerts the wearer through vibration and colour coded LED lights. The wristband is aimed at providing the wearer with information that can help them safely navigate the world around them. This should mean the hearing impaired could enjoy a better quality of life as they are more integrated into society.

Source Link: [shorturl\[REDACTED\]](#)

## Appendix E: Interview Transcript - SE\_Tech\_002

Transcript: Interview with SE\_Tech\_002  
Words Count: 10 739  
Page Numbers: 15 Pages  
Duration: 1 Hour 05min and 22 seconds  
Location: Midrand Johannesburg – Participants Home Garden  
Date: 2018 June 04

### *Explaining the purpose of the interview to the participant, consent form and information sheet*

**Researcher:** I am just going to start with the recorder. I'm getting into the mode of having 2 record, just in case you have missed a whole lot of conversation. If anything happens, I have missed a lot of content.

**SE Tech 002:** you really sound like this guy; I did an interview the day before yesterday. Ya!!!!

**Researcher:** How was the interview?

**SE Tech 002:** it was cool, it was cool. Ya!!!!

**Researcher:** okay, so I think, I probably, I have to say one of those important parts, I'm not going to disclose the organisation or yourself. Technically, I will make sure that it is anonymous. In terms of the.... I will transcribe and use a lot of what you're saying but then make sure that it is quite unidentifiable to your organisation. They will be certain things that you will say that I technically identifiable to the organisation, for instance if I asked you where are you based and so on? but I will make sure that I redact that. It is about 7 key questions that I will go through. I also have a consent form that I should have printed but I forgot. So, I will just you email that to you if that is okay with you?

**SE Tech 002:** Email that to me.

**Researcher:** The email also contained info sheet. The info sheet will contain little bit about the research and what the purpose is on. I have touched on the purpose of the research. I am looking at three areas. So, scale, social-impact and obviously technology.

So very much about How does technology effectively impact scale?

What kind of scaling strategies are people effectively implementing?

That is effectively the core of the research. Just to give you some timing if you want to see it. I am planning to do all of my interviews by the end of July with the hope that I can have everything written up by the end of August for my first draft. I am hoping to submit at the end of November. As I said over the phone I am trying to interview about 26 people on a combination of start-up that are not necessarily tech heavy and then others that are leveraging technology to be able to reach people. So, you fall on the people that are leveraging technology.

I will now open my questions. Any questions that you may have for me before I jump in?

**SE Tech 002:** None. I am good

**Researcher:** I will just jump in.

SE Tech 002: I have done a lot of these by now, I just wing them.

## *Section 1: What is the Organisational/Founder profile that is likely to adopt a tech focused social innovation?*

Researcher: You have gotten to that point now. The first part is just about, if you can tell me a little bit about the work that you do, the organisation, background, funders, team and probably a little bit about the problem that you solving and the solution.

SE Tech 002: in terms of what we do, It is really about integrating the best classroom experience and into a digital device or a digital environment. The whole concept behind it is about scale. You have a limited number of resources, in terms of textbook, you have a limited number of skills when it comes to great teachers. Particularly for Maths and Science. So, the question is how do we replicate, how do we preserve that skill of the few individuals to a lot more people. But also, how do we standardise the quality of learning across the board regardless of where a kid is. It became essential that technology becomes.... play a big role in that. That is why we went with mobile technology, because it is, if you are looking at scale you have to look at the prevailing resources, the available resources and how we can piggyback these.

What we looked at is, for one, we considered the number of high school students, it is about 3.5 million. About 76% of them have access to a mobile device. Also, we offer seeing a transition within our school environment. Government has been....in Gauteng for instance, they have tablets now the school. You know with the system that (Education MEC Name) is now doing. But everyone is moving towards a paperless classroom. This is the reality,

Everyone is moving through a transition whereby they are getting rid of pen and paper in the same way that they got rid of the slate back in the day before they are getting rid of pen and paper and are moving into tablets. So, also looking at other factors that affect.... do not necessarily emerge from the education industry but are affecting it. It is also the cellphone industry. It is affecting us.

Cellphone companies want to sell you airtime and data. They are willing to give you a phone for free and in two years' time, they upgrade you. They give you an additional phone for free. They give you an additional phone, that means that the old phone that you originally had, now goes to your little sister. Devices are becoming prevalent, they becoming accessible, the becoming cheaper because of those dynamics.

Therefore, it was really about looking at that space and saying how do we then leveraged off of that. Integrating the classroom experience into a digital space specifically for scale and access.

Researcher: Can you share with me a little bit about your team and the journey for you guys since you started to where you are?

SE Tech 002: So, my team, currently there is 11 of us full-time. It started with me and then people came on board. At first it was on a voluntary basis and then it was on a deal basis. So, I did not have money to pay people, but I knew the skills I wanted. I looked for people that were entrepreneurial. I knew what my skill set was, and I would make them an offer to say.... A lot of them were in entrepreneurs by the way. So, through places like the Branson Centre, and through other incubation programs that I had been on.

I was able to identify certain skills, like IT and all those kind of skills in different in people, I would also look for the weaknesses in their systems, or their operations, their strategies, and overall business. I would then offer to close that gap, be it marketing, or bookkeeping or something like that.

**Researcher:** This is their current organisation that already exist?

**SE Tech 002:** Ya!

**Researcher:** and they would complement what you need?

**SE Tech 002:** Ya! I will close those gaps, they would contribute those specific skills. They would not pay me, they would just do the work that I needed done. If this is development, they would then do the development in return for my services. Three of them started off working like that and then eventually ended up joining full-time.

**Researcher:** when did you start? From the time's perspective?

**SE Tech 002:** 2014, We registered in 2014, then went into the Branson Centre, Red Bull and things like that. At this time, it was an idea and a business plan.

**Researcher:** At least you had a business plan.

**SE Tech 002:** Ya! Everything sort of evolved and unfolded from there, I knew what we wanted to do, but I did not know how it was going to happen. And in immersing myself in that environment, piggybacking in people sort of forced the idea to evolve and take shape.

**Researcher:** You were full-time into the business?

**SE Tech 002:** Yes, I was full-time.

**Researcher:** so, you did the whole cliff jump thing?

**SE Tech 002:** Ya! I was unpaid for three years working in the company. You can imagine how many broke days and staff I had.

**Researcher:** wait, what is your background?

**SE Tech 002:** BCom Marketing in Supply Chain, and then I worked UKZN in the career's guidance department. I then did events management in corporates affairs. Then I was in the finance division. After that I went into Virgin Mobile.

**Researcher:** The three people that you got at the beginning, where they all three primarily tech based? what was the background?

**SE Tech 002:** No, one was more finance and operationally based, we didn't have a registered company at the time. What of the things he used to do was bookkeeping and stuff, so getting the documentation so that you get to a point where you are fundable you require a bit of leverage and resources to get those things place. So that is how he came in. He also had a branding business on the site. So, I used to work for his branding business. Whenever we would go for meetings, you know entrepreneurs, they're naturally curious. The more he came in for interviews and the more he would start to fall in love with what I was doing.

Then eventually he came on board fulltime. The other person was definitely Tech based, so he also had a start-up that he wanted to do. Actually, that is how I think, this sort of how the idea actually unfolded. He wanted to develop a network system to distribute music videos. He wanted to set up in

taxi ranks in such a way that it works through Wi-Fi. So, people while they wait for a taxi they can just register and download and they leave. This was about using taxi ranks as hotspots for downloads and content. I looked at that idea, I actually met him through [Mentor Name]. [Mentor Name] was my mentor as well, and we shared an office. So, he wanted to pitch [Mentor Name] to get access to some of his content. [Mentor Name] was like, I think you might be interested in this, so he brought me in and that is when I saw the light bulbs went on.

So, the idea basically came and evolved to the point where it is now. It has basically been about people adding their ideas adding their creativity and cross-pollinated ideas from different industries and sectors. That was one of the key things in innovation, you have to look at, you should not be closed off to particular industry only. Sometimes the best way to find scalable solutions is looking outside of the industry. Like you, in medicine, looking at how viruses spread can give you good ideas of how solve some of the issues in education and other stuff can be solved.

For me, I found something that works in music and entertainment that I can apply in education.

**Researcher:** on that point, I get the part about him instilling the application of the technology lens. I am also interested on when your curiosity about education start or did it only ignite when you had the conversation with him?

**SE Tech 002:** I was looking for a distribution system, because we had developed that our video tutorials and we were putting them on the website. People were struggling with accessing them because of data. Anything you put online is going have issues, particularly video. It is not yet an efficient system and we do not yet have the infrastructure. It is not strong enough to sustain the distribution because it will crash and it is slow and its crazy expensive. So, I was already in the education space and I had already developed content. I was definitely looking for a distribution system/solution. It was just that, you know, being able to connect the dots. When someone talks about something, and you are like, I'm going to take this and applied here and then you see clearly.

**Researcher:** that was the first part, I'm just going to go into the second one. I'm very much interested in, maybe if you can just explain a little bit about your social impact. How that is derived, how you would then explain what is the social impact.

**SE Tech 002:** initially our impact was just focused on access. We know that a lot of kids do not have access to quality education. We know that schools do not have teachers. We know that schools do not have textbooks. So, what we wanted to do was, something as simple as past papers, kids struggle to get access to those. As much as we take those things for granted that there is material on the Department of Education's website, Kids struggled to get to that website which is very much cluttered with so much and been able to find what they're looking for is actually a problem. So, scale for us was, initially it was about distribution. Being able to set in a system, and measure usage. Measure how many people are registered on the system, how much videos have been watched, you know, in terms of the number of downloads and the frequency. Where a person logs in or the duration of how long they stayed on is really registered. So, through our system, a kid is able to access and download this much and they can stay for this long and all of that. Again, It is the things that evolved. It started off like that and then the more we worked on it the more we identified gaps. We then said you know what, we're measuring impact on in the sense of access and downloads but is what we are giving them actually helping them? are they performing better?

So, we started looking at the matric rates in the schools where we work, and no how to start centralising it and measuring properly. Let's take on a while school.

**Researcher:** and compare as well

**SE Tech 002:** exactly, let's take on a whole school and start seeing the impact in that. We were basing it on school tests that the students are taking and if the student is doing better on our product and all of that. Other students progressing? And all of that. Then it became clear that we can't trust the school tests. Because sometimes in the lower grades teachers set easy tests. Sometimes teachers are very generous when they are marking and others are very tough. I remember, even in varsity level, tutorials and their assignments are marked by the students who are tutors and some are just completely strict and ridiculous whereas other tutors are just generous and students pass and fail based on tutors that they have you know. I remember one of my modules I got 48, ya.

So, what we wanted to do was then was think of how we can create a central system of actually measuring the actual capabilities of students in a universal way, how do you centralise that and then be able to scale it. That's when we started putting/embedding assessments into our system. For every downloaded section you do an assessment, that tracks what you know before and that also tracks if this content actually helping you. Are you now able to understand and perform better. And then it evolved to, we are assessing students on how they are doing on our content, how are we assessing the impact in closing gaps. Do we even know what those gaps are when they started? If someone starts from great eight do we even know what the gaps are and do we know how to close them?

That is when we started incorporating baseline testing. That gives you a clearer picture of the system in an overall. So, if you start assessing somebody from Grade 8 you would know they are missing these key concepts. And then you watch them over the time, are these gaps getting smaller or wider as they are progressing through the system?

The aspect of impact is always evolving. It is always subjective as well and I feel like if anybody can say we have got this one to the "T" then it is not the case. You're always looking at things to measure, you're always trying to improve on your M and E. You're always trying to find better ways of improve, even during the data process collection and assessments. You identify gaps, we getting into the school and we say this is really exciting. But guess what, teachers are not equipped, one of the reasons that kids are struggling is that teachers do not cover most of the content required in the curriculum.

Now, we went and partnered with (Partner Name) and brought in curriculum coverage tracker into the system. Now we're measuring the teacher covering the curriculum, what are we now doing about it? Now, we had to go and start putting in teacher support. We need to have a teacher section, where teachers can download digital lesson plans and download material themselves. So, it is constantly an evolving system. You are constantly identifying gaps and thinking of what you can do to close them.

## *Section 2: What are the moderating environmental factors of the South African social economy when considering scale through digital technology?*

**Researcher:** I'm going to ask us to move away from your company a little bit. I would like to chat about the social entrepreneurship landscape in general. I am particularly in getting your perception of what you think is the state of social entrepreneurship in South Africa. With an intent to chat about main challenges and what enablers are out there. How the ecosystem looks like from your perspective.

**SE Tech 002:** I think the ecosystem was flawed, it is a mess, partly because the corporate structures do not recognise the social impact. Also, companies are not assessed in terms of the beneficiation, BBE scoring, and the enterprise development spent and all of that. The tax breaks the companies are getting. They are not based on impact, they are based on spending. Based on spending. Companies, at the end of the year, the guy who is supposed to do the CSI, when one month before the financial year ends, they are like crap, we have R2 million that we need to spend and what do we spend it on? They are going to find the most expensive thing to do that enables them to quickly spend this money. So that they can submit the receipts and say that this is what we have actually spent it on without actually assessing whether that work is sustainable or can benefit the school. Or even environment of the impacting in, it could be a school, it could be an orphanage, it could be anything.

That is why in some of the schools that we go into, we find this crazy expensive high-tech equipment that is not helping anyone, it is just sitting there. Nobody knows what it does. All these servers, whiteboards and systems that are in the school without high-speed Internet. They get set up, it costs a lot of money but the school does not have money to maintain them. They just sit there and rot. So, I would say it is flawed in that sense. I think if we are to hold companies accountable and, to say your tax benefit and your CSI spent and beneficiation system or BEE will be based on actual impact. Not on spending, but actual impact. We need to see a greater improvement, need to see a great impact in that particular school. Same thing with BEE, people just go and find companies to (who meet the criteria). They spend, they spend on training or providing funding on things that are not necessary for them. But they do not give them business. They do not pull them in their supply chain, they do not help them put the structures in place to get absorbed by other businesses. They just do what they have to do to tick the boxes. And I think there is a lot of actual assessment that needs to go into the process, if we want to make those policies work.

So, yeah, the social landscape is broken, I think there is a lot of people with great ideas. But there are also just these people who are just using the system to just make money for themselves. Personally, in terms of a lot of NPOs that I work with, they are stuck in this process of just raising money. It is no longer much more about impact any more.

**Researcher:** you are a for-profit?

**SE Tech 002:** yes, we are a for-profit and we had to create an NPO on the side. Because, we would go to companies and they would say that they love what you are doing and they see the impact. We see the numbers and everything. We need the tax benefit, a you can give is that. So, what we had to do in the past is partner with an NPO. Then sort of become a joint venture relationship. Those guys then also want management fees and all of that, and stuff like that. Even though, we do not necessarily operate as an NPO because the NPO system is not in our DNA. But because the schools need funding. The company has a lot of money and they are not spending it based on who is doing the best job. They're spending it on who can give them the right documentation. So now we've had to put the documentation in place in order to be able to access those funds. There's a lot that needs to be done in the space in terms of accountability. In terms of actual impact measurement and holding companies and people accountable to it.

**Researcher:** I think, to close the conversation in terms of. I'm most interested in what you think of the main enablers of the in the social impact space. I think you help me understand the limiting factors and the challenges but do you have a, or your reflections of what enablers are of the for there and what that has meant for your business.

**SE Tech 002:** I would say, in the NPO space. Because it is different, right? There are the social enterprises and there is the NPO space. For the NPO space obviously its donations. That is what pumps blood for that particular organisation. It is mostly based on the trends, what's the in thing right now, if is uplifting entrepreneurs, then a lot of companies want to put money towards incubator and all of that. Whether it works or not nobody cares. That is what going to do, as soon as sanitary pads become the issue in the media and then every company wants to be associated with them. This means that funds get pulled from one place into the other. So, the enablers I would say, is good in a way. Whatever the prevailing social issues are, drives the funds. If there was an earthquake right now, the media attention, the buzzword would basically force and drive funds to what that particular direction. The problem is then in terms of sustainability, the companies that rely on those funds when the funds get diverted, how would they survive.

In the social enterprise space, I would say the enablers are. Right now social entrepreneurship is the in thing. It is the buzzword, and every company wants to be associated with it. Do they actually want invest in it, that is another question all together. Invest in it, or do they simply want to be associated with it, there is a lot of risk associated with putting your money where your mouth is. Companies are more than happy to put money in a for your flights. Come and speak, look at how wonderful you are. But when you say I need money to develop this, they say we do not actually do that.

Even though, that might be the one thing that you actually need. So, I think again, they enablers right now I would say it is the popularity of it, the acceptance of an idea, that makes it easier now for people to penetrate. Actually, get the conversation started and get the relationship started within big organisations, once you are in the door, then you can be able to sort of like push and leveraged the networks and whatever you need to structure and build more relationships.

The enablers are, the problems are there, they are quite clear. When you are creating something to solve those problems There's bound to be support. The enablers I would say is there widely acceptable ideology around social entrepreneurship. That is why a lot of people are moving towards this space. It is becoming easier to work in the space. Unlike before people didn't know anything about, and business was seen as a cutthroat business kind of thing but now people are willing to explore. Also, people are holding companies be accountable and asking what are you doing about these issues. They are starting to hold organisations accountable as a result people becoming more conscious about their spending and about the brands. It forces companies to now set aside budgets for those kinds of things.

It forces companies and people to actually want to get involved in these issues because it is what the consumer actually wants. Its shifting perception and I guess the responsibility that the consumers placing on the company's is shifting to the conversation that now the consumer wants to happen. And accountability that not the consumers expect from companies. Consumers are now asking for a higher standard that is no longer just a corporate that just speaks. Through social media, people are now able choose brands based on who is socially conscious and making impact. They can now choose what to buy and what not to buy. Now companies have to step in and allocate resources.

**Researcher:** I think maybe, do you think that with these enablers and resources that are out there for social enterprises to leverage. Do you think it is a competitive market or do you think there is not enough players? In that space to compete for those resources?

**SE Tech 002:** I think they are enough players. It is a pretty good environment to be in. The question is, with those players the commitment level?

**Researcher:** Which speaks to the sustainability that you mentioned?

**SE Tech 002:** Exactly, exactly.

### *Section 3: Which scaling strategies are social impact organisations in South Africa implementing?*

**Researcher:** I think I'm going to move away from that. It we could chat about scale, probably what that means for your organisation? and if you can tell me about when you started thinking about it? when did it become an important element for how you want to build an organisation?

**SE Tech 002:** Ya, for us from the very beginning because you.....the whole concept came about of ... You get these pockets of excellence in school and everybody else well just tough. So, from the very get go, that was the ideology behind what we are doing. To say, this teacher, who is amazing, who has these extra classes or how do we leverage the teacher? How do we know lower those barriers so that the teacher is not just limited to the 40 kids that are in this classroom, or to those that can have transport money to get here and attended these classes. So, looking at scaling, preserving those talents was at the core element of what we are trying to do.

Sorry I kind of lost my train of thought. What was your question again?

**Researcher:** Ya, it was very much about what scale means for you and you were already answering the second part about when you had to start thinking about it.

**SE Tech 002:** What scale means for us, you know replicability. It needs to be simple enough, for anybody to use it. Create something affordable, simple but can be replicable in multiple. In a very simple way because I think that is part of the problem in education. Like I said people spend a lot of money doing fancy things. Getting expensive fancy equipment. Plenty software, school management systems that needs an IT person to manage. How many black schools do you know that have a dedicated IT person? What happens to those systems then?

So, it is really about making it cheap, make it so easy make it so accessible that anybody can use it. Then be able to provide the training, but mostly it is also about integration. You can just develop something that needs to be driven. You have to create something that is going to impact the culture and change the culture. So, for that to happen, for that to change the daily patterns of people. You have to look at the environment, and say how do I look at the different stakeholders and create a beneficiation system that will make the adoption and integration easy. You have to accept that there is going to be a time period that you will have to drive that integration.

So, one of the things that we are doing is that... even adding the teacher part for us, was about integration and scalability. Yes, we are great, kids excited about what we doing on these tablets and mobile phones. But teachers, still see them as destructive to class and are scared of them and all of that. In order to really make this part of the culture, we have to involved the teacher. How we involve the teacher? How do you involve the teacher? Are we train the teacher on how to use the technology? And do they see the benefits of it. Where the benefits of this technology?

Instead of having a teacher marking scripts you save them that admin, you can now say that actually instead of marking those tests, here you can actually set test her and the systems automatically mark them for you. So, by incorporating the different parties into the space you make it. Every party now knows how the benefit in the system. You make it easier now system to integrate, if this system can integrate then it can scale.

We also now looking at it at a higher level on the data that we are collecting. Is this information useful for subject advice? Also, for District Officials? For Circuit Officials. You can say that in your circuit, we have 20 schools and here are the schools that are struggling based on the data that we are collecting. Instead of me having to visit all of them, let me focus on the school. If kids are doing assessment in Paper 2, kids are generally struggling in these areas. It means teachers are not probably not confident in this area, maybe they can have classes on that. So, It is about looking at different parties and different stakeholders and saying how do I create benefit and convenience by making this a resource so that they can use it and champion it.

So, they do not need to drive it but it become something that made their life so easy and convenient, and they will try that. That then speaks to the adoption of the system and the integration. Once we have that then It is easy to scale because, all you do is just replicate. With our system the way it is now, the system is all set up, all we need is make more boxes and put them in different locations. We need to do some training, do this, do this and get people involved. Once a month we send people information, once they get used to using the system we slowly start pulling back a little bit and start watching the analytics and we see if It is continuing and pull little bit more. Within a 2 to 3-year period they are running it themselves, they are running on their own. Then that means now we can focus on somewhere else.

Also, scale is about resources as well. Because we have limited funding, if you think that one system is going to be funded by a company for the next hundred years that is not scale. It is not going to last, also it limits your money because you constantly channelling it into one place. One of the things that we build into our model was, was to say, how do we make it in such a way that the system is self-sufficient, whoever is funding the school is only funding it for a certain period of time. 3 to 5 years during the integration after that it needs to be self-sufficient.

After that the person can then fund another school. Whatever resources we have we can spread them out. So, that is one of the reasons why our company has to be a for-profit. It is to say, when we set this up in a school, yes it has been driven by the CSI and sponsor for roll out. But once It is in the school gathering data we can sell the data to companies for bursary placements. We can create a network of a distribution system where we can distribute textbooks. We are collecting data that we can sell to the Department of Education, research wise and stuff like that. So, then that becomes the sustainability model, to say once we have enough data here, the money that is now coming from the sponsor can go to next door and can do other things.

That is the part, that is the problem with a lot of these other education foundations and projects. It is that they.. a lot of them have been funded for the last 20 years and they require funding to still continue again for the next 20 years. That is just not sustainable. Sooner or later your funding is going to be diverted somewhere else.

That is sort of the NPO trap where people are always. So now you know.

**Researcher:** I'm coin that point, "then NPO trap"

**SE Tech 002:** so, now I realise that we need to have leverage. So that I continue to be the one that gets the money because other NPOs are now coming into the space. This means that, if they build better relationships, some of our funders would move to them. So, now it becomes this war and NPOs are busy fighting with each other. The people who do not benefit are the people who are meant to be benefiting on the ground.

**Researcher:** okay, maybe on that part. For you in terms of considering your scale, what would you say your biggest challenges that popped up in your journey?

**SE Tech 002:** scale required capital. That was the challenge. To create something that can be replicable means that you have to build it right the first time and you have to build it big the first time. For Google to be everywhere, it means that, they had to really create a system that would be seamless. That could be integrating into multiple devices, multiple scenarios. Different areas where there are different networks and functionalities. So, it is very costly at the start. And that is why I think it took us a very long time to get moving. It is because we needed a lot of money for development.

**Researcher:** do you consider 2014 a very long time?

**SE Tech 002:** 2014? It took us three years to get anything moving. Once we got that, it just went like, you know. The incubation period is longer. So, you are not going to see results in the first three years. Imagine working for three years not seeing a cent there's no money coming in and there's no client, it is money going out. You're going out there and raising money. Donations, you're pushing from your own personal funds and putting it in in order to build a replicable system.

**Researcher:** I am three years in.

**SE Tech 002:** Richard Branson said it takes 1000 days to build a business. So that is the incubation period. So....

**Researcher:** Do you think the incubation period varies for technology businesses?

**SE Tech 002:** no, technology is the trap of silicon-valley rubbish. The perception that you can start a google and then boom overnight you've got a Twitter. If you really look at those companies and in terms of when the idea came about and how they got started, you will realise that there was an incubation period that was quite long and some of them had to pivot and change and adapt. So, because ultimately, It is not about the tech It is about the people. No matter how amazing your tech is, It is about the cultures, It is about changing perception, It is about looking at different stakeholders and engaging those, It is about credibility, It is about building trust and rapport. Those things take time. No matter how good the tech is you need time to learn yourself as an entrepreneur to build the right networks and build the credibility. And also, to learn those skills.

#### *Section 4: What scaling factors are considered important by founders of social enterprises?*

**Researcher:** Probably, moving away from you. Can you help me unpack three cases of organisations that you like and you are liked, where you are like these guys have really nailed scale? If you can tell me what those are? Very much saying these organisations that I think are, either I really look up to or I am interested in how they have been able to do "this".

**SE Tech 002:** locally or internationally?

**Researcher:** It is up to you

**SE Tech 002:** Google is one of the companies that I really admire. When it comes to scale they have really managed to create a solution that is scalable. It is simple enough that anybody in any language, any country can use. So, when I started I read the Google story. It is a good book. I saw a lot of similarities with what they were trying to do at the beginning and what we're trying to do. So, that

sort of like, one of the models that I look into in terms of your consumers do not pay but you have to find other ways of monetising everything. I would say that would be the first one.

the second one, let me see.

**Researcher:** I would also appreciate if you can bring in more local ones.

**SE Tech 002:** Eish! Ya, I am trying, I am trying but a lot of them fall short of something.

**Researcher:** maybe you can tell me more about that in terms of what they fall short of? Do they fail? Or do they not reach the level that you think they should?

**SE Tech 002:** They are in their small pockets, everybody has got their own 20 schools there, 50 schools there and the business model when you look at it you find that, they requirement subscriptions and credit card payments. So, you can clearly see where It is focused on. So, I would say it is very hard to scale in South Africa. Because a lot of people try to focus on everyone. Everyone has different, Ya!! you can do that. If you are focusing on middle-class, and maybe the poor maybe you can get away with that but you can't be like we are going to provide the service for everyone. Because it is so completely different, it is different dynamics in different worlds. That you can't afford to. To be authentic you have to really understand what those different challenges are and look into the mind of that particular consumer in order for you to effectively create a solution that works for them.

So, I would say, let's see locally? Hah!! Siyavula is not there. Maybe let me look outside of education? Ha!!! Ya I will get back to you on that one (Laughing!!!)

**Researcher:** Maybe let me ask it differently, in your learning, do you look at what other people are doing in terms of scale or do you focus very much on what you have read and what you experimenting with in terms of what can work?

**SE Tech 002:** I do look at other people and their strategies, but the reality is in terms of the space that we are in a lot of the companies that exist out white owned. They haven't reached scale and they are not gonna read scale based on their models.

**Researcher:** When you say their models you mean?

**SE Tech 002:** Like, take Siyavula for instance, they print textbooks, they are free blah blah blah. And then once you have the book you are going to practice and you have to go and subscribe to the system which requires you to be online and yes, it is zero rated. For you to do that you have to pay like R325 per month. Obviously, it is very limited population that can do that. So ya!! Organisations that scaling, I want to gravitate more towards my towards my cohort but they are also, some of them have the right recipe but they have not scaled.

**Researcher:** So, you would say there is a lot of activity but nobody has figured it out?

**SE Tech 002:** Because of the limited opportunities before, a lot of the people that were gaining access into the space where people who had the right networks and had money to begin with. And those, If you look at a lot of these companies, like, they are white owned. It is only now where this this space is starting to open up to young black South Africans social entrepreneurs. But they have not been given enough time to implement in scale what they want to do. They are starting, they have the right recipes but they need time to get there. So, It is like this emerging economy that is now focusing on scale, while everyone else was focused on "I'm going to do what I think is right" or "I'm going to give these people what I think they need". You know, instead of really looking at what people really need.

## *Section 3: Which scaling strategies are social impact organisations in South Africa implementing?*

**Researcher:** I think we need to move to. I'm on question number five so that you know where I am.

**SE Tech 002:** out of? 20?

Researcher: no (laughing!!!), out of seven.

**SE Tech 002:** okay. Cool

**Researcher:** Maybe if you can go back to... some of those you might have answered. But I will ask it anyway. Going back to your organisation, How are you planning to scale?

**SE Tech 002:** So, in terms of how we design the system, we designed it in such a way that is easy to scale, but in terms of the commercial viability of how to scale. We have different strategies that we have in place, that we are looking at. The adopt a school is just for us to kickstart, It is the low hanging fruit. The CSI money is there, they are going to spend it, let's help than spend it in the right way. But, we are looking at the publishing industry. So, textbooks in the Department of Education pays a lot of money for textbooks and they print them and pay for logistics company to distribute them. What we want to do is setup these different networks in different locations and say give us one copy of the textbook and we will get it to all the different location.

And, also apart from government we are looking at the publishers themselves. Companies like Cambridge and Parsons, to say instead of waiting for CNA to sell your books, give us the right to distribute your books. Because, you are not printing, there is no logistics for us. Also, instead of selling the book, you give out right someone a 12-month licence. So, that should bring down the cost of the book. They are not owning it, they pay like R30. They get to use it for year after that it self-destructs. Once we have that in place, it is easy to go to school and saying if you commit to buying your books. Because from the textbook system we take a small commission, I think its 25% as an standard of the revenue. That is sustainable model for us.

We are no longer dependent on a sponsor, we go to school and save on your textbook budget. If you buy textbook from us, instead of being able to get a limited number of textbooks. Let's say you have a limited budget of R500K, instead of getting a limited number of textbooks, you can get everyone of you student's textbooks for every subject because now the textbook is no longer R300 but its R30. Right?

If you commit to buying your textbooks from us, we will give you the system for free and the whole platform. Because we know we will make the money. That is an easier way to scale rather than, waiting for CSI and or waiting for sponsors.

There is also another model that which we are working on now, It is sort of a crowdfunding model. It is a campaign for "back to your school" where people worked... Like you went to a high school in Umlazi and you register your school. You want them to get the (company name) system, then you share the information with the other alumni. People will just then pledge like R200 to that school. The Alumni of that particular school, it could be parents it could be anybody. They pledged a certain amount of money, how much ever money it is until that school reaches the target and they get the system. So, we are looking at multiple ways of scaling. But for now, It is looking at it from a point of covers the cost and not necessarily in terms of how we design the system. Because we designed the system initially, for it to be replicable.

For us it really takes, ordering more parts assembling it and cloning the system and the software, including the content into one box, and another box and then going to the other box and we ship them. Right? So, Ya!

**Researcher:** I do want to ask you, on developing multiple strategies besides your....? Who are the stakeholders that have helped you? In coming up with these multiple thoughts or is it just internal?

**SE Tech 002:** I have a lot of mentors. A lot of mentor Names that I learn from, they come from different industries. I make time to just bounce off ideas with them from time to time. But some of them I met through incubation programs that I was part of. Like Red Bull, Branson Centre, my existing board. Some of them I meet through my existing board or investors. Sometimes I meet them through... I'm very much involved in the space like panels and the media of course. So, you would find that, while you are giving a talk in a certain conference.

Like Sizwe Nxasana for instance, now he is one of my mentors, we literally met through, he attended a roundtable discussion on the language policy in schools. And I was going to speak there, he was like I do not know how but I love what you doing and I want work with you. That is someone who is the chairman of NSFAS and chairman of this and that... He is very involved in the education space. So, being able to share your ideas, I think that is key. As into entrepreneurs we get scared of sharing our ideas because we think somebody is going to steal them. Or that we are going to get swallowed by someone who is bigger than we are. But getting to the person, having the confidence to say that we can do it like I can. Right?

They might have the money, but I can connect the dots better than anyone in the space. Being able to have that conversation, and say this is what we are planning to do is this and this is what we are trying to achieve. And, get the right people to put in their input. Giving them that trust, having the confidence to say I'm bringing you in and I'm giving you the trust. Bouncing off ideas, sharing information.

That is when people start throwing around ideas, maybe if you do it this way, maybe you could, you know. Government would be willing to pay for this kind of data. You know? I worked for NSFAS, we are building central university application systems. So, to feed, to have data that feeds into that. We would happily feed into that.

It is really about just putting yourself out there, sharing your ideas, share your vision of what you're trying to achieve. Inspiring the confidence that you are the right person to do it. The right people with ideas, will come on board and they would be willing to come on board with their own ideas. It also just about being open-minded, never think that your solution is perfect. We fall in love with our solutions, we are like Yoh!! We love ideas. For me it, I think that, one thing that I realise is that I love the problem. As long as the problem still persists, I will always be looking for different solutions, I will adapt the solution.

If this (company name) library thing at some point I realise that, Internet is good now people no longer needed. I have not lost relevance, because the problem is still there. I'm just going to find another way of solving a different problem. Maybe, people now need to learn about entrepreneurship. Maybe, we need to start developing that. Or, coding? Maybe, we need to start going into adult learning. Helping people, who need Matric rewriting so forth.

So, it is really a combination of putting yourself out there, share your ideas, new build rapport and trust people with experience. You build relationships, I always say the biggest value, the most important and valuable thing in a business is not the IP, that idea, or whatever or even the assets.

It is, your ability as a leader to cultivate and manage relationships. I have been with Red Bull now for what? And the relationship is still active, how many other entrepreneurs were in my cohort who have never spoken or seen Red Bull in years? As much as it is gotten to the point where, what they are offering I no longer need but I still make time to give them a call and say hey. They still call me and say can you speak at this event for us, I can't say now I am worth this much. I'm happy to, to do it. Because those relationships are key. Having the trust and rapport means that people can champion your success and they are always happy to connect you to people and add ideas. Like, what [Mentor Name] did. Saying I came across this guy who wants to pitch me this, come in, and then ideas come. You evolve from there.

**Researcher:** I tried to take a job at this a while back, but did you ever have a part where you needed to sit down and look at what are the common scaling strategies out there? Pick and choose, matching or is it all organic through people.

**SE Tech 002:** It is been organic, I'm not going to lie. Ya it is been organic. Obviously, you go out there, you research and you learn, you watch what other companies are doing, it was never ever a conscious decision to say let me look at these kinds of different strategies. It all evolved, I think if you stay with one idea long enough and one problem long enough, then you are going to start, things will start falling into place. You start developing that antenna of being able to connect the dots.

Like, [Mentor Name] was not interested in that meeting, they were just annoying him for a very long time. He was like, just come into this meeting and listen. Even after that meeting he did not even follow up anything with them. But, after I took it up with them, I think about a year and a half later when it started working. I was like, [Mentor Name], you know our system does 123. We can actually put your content here. And he was like Wow! really.

Because, you need to be receptive, you need to be naive enough to know that you do not own this. Not be afraid that somebody is going to steal it or someone is going to do it and do it better than you. That is a compliment, I think as entrepreneurs we... Honestly, for me, one of the things that keep me in the space is because I have seen that nobody is doing it the way it should be done. So, therefore I have no fear that somebody is going to take over my business. I'm not protective and I am territorial about it. That is why I am happy to share their ideas. The more I share their ideas, the more the seeds, the concept gets buy-in.

Four years ago, teaching people in local languages was taboo. We were being told that we are crippling kids, and English is the official language, policy say this. And now I go to the Department of Education and meetings where people are like its curriculum enrichment. We have to incorporate languages like (company name) has done. I'm like, you know, it is because I stuck with it, I had the idea, I knew it was the right thing to do. I didn't sway or move based on who I was talking to, no matter how much shit you give me. I believed in it, I stayed with it. Therefore, people started buying into the concept and the idea.

Therefore, when you do that, I think ideas also and strategies also come up. Be receptive to ideas, listen, every meeting, no matter you do not know what you are going to get out of the person. I get a lot of random messages through the website or through Facebook, people who reach out to me.

Who say I want to start a school, I want to do this. As much as I'm not very interested in private schools, I still take the meetings with those people. That is how I met my operations manager. She wanted to start a low-cost school private school, in Pretoria. She was like I saw you, I like what you are doing, I would like to know how that would work in my school. I really like what you're doing, I really would like to see how that would work in my school. I was like, okay, let's meet. And I went and met with her. I had nothing to gain from that meeting, but I did allocate time. Through that, I was able to see that, hey this person is really passionate and really driven. I ended up bringing her in and now she runs operations.

So, same thing with how I met Nxasana, there was no benefit to us going to the discussion panel. The more you put yourself out there, the more you share your idea, the more you are receptive information and people, the more you going to... Things just keep on unfolding, because you are tuned in you are able to identify the opportunities and the gaps. It is also about authentically knowing what the problem is. That is a lot of the issues that, people go in, you know there is a lot of money in education you should develop a...

If you have been on the ground long enough, you have had conversations with principals and teachers. You are not disconnected in the office. You go into schools, I still go into the school for every activation, every new school, I meet every principle and I'm still that connected. Which means that you start identifying gaps as you are having these conversations and because you are receptive you start getting a lot more information and whatever you do is.... You do not go on a tangent with these people you're talking to. These people are helping you, how you can make this better. Like we had teachers whom we hired, just to review our videos. Look at it, comment, whether they think this video is good or what. Whether it needs to be redone and stuff. While they were doing that they were like, you know, this is great, but I want to see a video of people just going through the past papers. You know, is the section of its own, a revision section, someone just going through the June exam paper for last year and the year before. Going through it, teaching kids how the answer sheet looks like.

This is how the mark allocation works. I was like, wait a minute, let's do it. I get in trouble a lot, because people are like, the strategy is... No now you are moving us into a tangent... You're always coming up with ideas, writing them down, and sharing those ideas. Some of those ideas will take shape, some of them will fall by the wayside. It is about being that antenna, being that vessels that listens, learns, and takes every person's interactions seriously.

## *Section 5: How does technology impact scaling strategies?*

**Researcher:** I think I'm going to get into the next piece. I'm interested in your perception of technology within the social enterprise space?

**SE Tech 002:** technology is a tool, like any other. It can be used or abused and misused. I think the mistake that we make is, we glorify technology. When we should be, looking at as a different alternative to distribution or access or anything like that. But just because you have a good app, it does not mean that it ends there. You still have to have the human element to it. We still go into schools and do trainings, we still call schools, we still have people that go into schools and manage them. Even though, the system is easy to do that and easy to replicate. Technology on its own is not going to fix this, It is a collaborative approach between technology and the human element of it. Also, understanding psyche of the people that you are dealing with.

We came across this company that has this augmented reality video material, it just had things flying all over the place and they were taking this to kids inside the township's and in rural places. The first challenge that they encountered was these things are too foreign for the kids. They couldn't relate to it. Parents would be like, you're playing games so they wouldn't let them use it. Teachers were not comfortable with that, right? One thing that we did was we got teachers that are teaching on UKhozi FM. Teachers that are well known, who have extra classes and we didn't go high-tech. Camera, green board, you know?

We went to, we venues that... We are interactive whiteboards, we have this new technology. We said we want the green board. Chalk and duster because as soon as the parent look's at a kids phone and see.... There's Maseko. They see a chalk and duster, so this kid is learning. It easier to... Even though it is now in a digital environment. You are sort of like making the adoption easier. Because you are not just overwhelming them with this new exciting... No matter how beautiful it is. Technology on its own is.... People go and put up these tablets in school, they set up these high-tech systems and infrastructure and nobody uses them. They do not look at the human element in it, what you need to do is "not to focus on the technology", but focus on the people. Use the technology to communicate and engage with the people.

#### *Section 4: What scaling factors are considered important by founders of social enterprises?*

**Researcher:** okay, going to the last piece. If you have a chance to rebuild a whole different social enterprise. Having that mind of again, thinking about scale first, how would you build an organisation. What are the things that you would do differently and..? Clean sheet, dream, I'm building a new organisation, I'm thinking about scale, what other things that are at the top of your mind?

**SE Tech 002:** Do it right, build it small, tested it, tested it, tested it. Stay small for some time develop the right model and then replicate. I think It is about having the end in mind to know that I want to have this impact a lot of people. But first let me hold myself accountable to the school, this one's that I am starting with. I want to build it, I want to see the results in the school and Ya!!

The mistake we sometimes make is, I want to build something and immediately I wanted big. And then you find that something really shitty is of there. So, sometimes I think the incubation period helps. As tough as it is, because you do not have a lot of money so you have to get really creative. And, because you do not have a lot of money, you are judged purely on impact and the results. So, you have to outdo everyone. You have to really be the best person and you have to push yourself to really hold yourself accountable to M and E and to everything else. Ya!! Get comfortable. The way we did it, we started very small. From the time we designed it, we designed it with scale in mind.

What I would change in terms of how we did it, is the anxiety. The pressure.

Researcher: your internal anxiety?

**SE Tech 002:** yes!!

**Researcher:** would you dial it up or dial it down?

**SE Tech 002:** I would dial it down, I would be more comfortable with being small and testing it. I think the pressure of succeeding and getting bigger and getting more school was one thing that was like... It pushed us to make a lot of mistakes by putting our attention on the wrong things.

We focused on getting out there, marketing, travelling all over the world and all of that shit when we should have just have focused on three or four schools. Looking at those schools, monitoring, and watching school. For me it went that way and I then said no more travelling, no more. Let me go back to the school, let me build the relationships, let me get to really understand what I'm doing. Though doing that, it was no longer about the Richard Branson's, all these trips and whatever. It was about the schools. Then I was really able to develop the right solutions because I was focused and I was honing in on the actual impact and mapping out the actual recipe. So, I would say that... I would take away the anxiety and the pressure that... Because like you were saying earlier that somehow the expectation with the incubation period in a tech start-up is that it is supposed to move fast. So, when you take longer to develop you start feeling like, I'm doing something wrong, I am failing or this is not taking off. While there is a lot of incubation, and the legwork that needs to happen.

That pressure pushes your mentality towards something else and you are not focused on improving the systems and the product, mapping it out and documenting it. You are not focused on that your focused on trying to get business, trying to get as many contracts as possible. I am grateful that we did not get them at the time because we were not ready for that. So, things just unfolded, and somehow God decided that I'm going to force you to... No matter how frustrated you are, I am going to keep you here. That is what I would change, I will acknowledge the journey more, I would appreciate the journey and I would focus on the journey rather than trying to chase the dream. That is what I would do differently, but otherwise I would...

Researcher: okay!! I think we can bring it to an end.

SE Tech 002: You got everything?

Researcher: I got everything. I think you are able to speak to a lot of the key point that I had. I also learned a lot out of it is as well. Especially the anxiety and dialling it down. I think that is something that I am probably going through right now.

SE Tech 002: if the pressure, the family and everything

Researcher: Thank you, thank you, thank you.

## Appendix F: Interview Transcript - SE\_Non\_Tech\_001

Transcript: Interview with SE\_Non\_Tech\_002  
Words Count: 8 783  
Page Numbers: 12 Pages  
Duration: 52min and 23 seconds  
Location: Soweto Johannesburg – Participants Home Office  
Date: 2018 July 15

### *Explaining the purpose of the interview to the participant, consent form and information sheet*

**Researcher:** okay, testing, testing 123 testing, testing 123. I was just saying that there is about 7 questions that I would like to go through.

SE\_Non\_Tech\_001: do the answers have to be in English? Or can I also use the vernacular

Researcher: it would help if they are in English.

**SE Non Tech 001:** okay.

**Researcher:** unless you are willing to translate for me, and then I will say what you mean here, what you mean here. And then I would then be able to write it up.

**SE Non Tech 001:** okay, no stress.

### *Section 1: What is the Organisational/Founder profile that is likely to adopt a tech focused social innovation?*

**Researcher:** I think the 1<sup>st</sup> one is very much about, if you can tell me a little about yourself, the work that you do, your organisation, when you started and that kind of general things.

**SE Non Tech 001:** okay, so basically my name is SE\_Non\_Tech\_001, born and bred in Soweto. I grew up in a 4 room house, with siblings, we had relatives living under the same roof. Because there is so many of us, I grew up hearing my siblings saying that they want to build a formal structure in our backyard. Years went by, nobody managed to actually build a formal structure. So, some of my uncles were sharing the room whilst we were sleeping in the kitchen and the living room. We would have a few family members sharing their bedroom.

As I grew older I needed a little bit more privacy. I ended up renting my own informal backyard shack in our own backyard so I could have a bit of privacy. But, that came with its own challenges, whenever it would drain some water would come into the shack. Whenever it was called, the shack was called. So, as years went by I kind of like hassled to actually raise a bit of money to try and buy some building material. But we did manage to apply for any home financing from the bank. Their family was not earning enough for us to qualify for some kind of credit. So, I managed to actually try and applied to get a space for a bricklaying course which was a government-sponsored program. It took me something like 18 months to actually get access, I had to go every 3 months just to check if they had any space available for me to receive the training. I think It is a SITA accredited training. So, I used to work odd jobs, I used to work for a lady next door in the street. She dealt with a tombstone company, she would make tombstones. We were earning something like R70 a day, so it was R350 a week. I used to hustle.

As time went by, the that 18 months there was space and I was accepted. I had to do a few things before I got accepted into the program. I had to find someone that would employ me after I had

received the training. Because they had said they had wasted so much money training people and people and up in taxi drivers or doing something else. They wanted someone to use this opportunity to acquire the skills that they would be able to apply in their careers. I also had to go to the Department of labour and say that I was actually unemployed. So, I got someone that I knew, they ran a construction company and they were able to write me the letter of intent. I got the writing from the Department of labour, so I went there and got the training

and then I kind of had to raise cash to start building in my own backyard after acquiring skills. I also used to work part-time for the lady that I used to work for in the tombstone business. So some of the cash actually have for me to buy materials in small amounts. And family members would also see that the skills were actually coming in handy. We raised some money and we started building our own backyard formal structure. It took a couple of years, normally a project like that would take something like a month. It took something like 4 years to build the whole structure.

**Researcher:** is this the structure that we are currently in?

**SE Non Tech 001:** yes this is the structure that I am currently in. During the building of my formal structure in my own backyard I started collaborating with other individuals in the community with similar skills, some of them were plumbers some of them were electricians. They were the ones that assisted me in building my own structure. And they used to have some little small jobs, so they used to bring me in as a member of the team to assist with the bricklaying. We started doing small jobs in the community. So I identified, was that helping some of our friends who had informal backyard shacks. Whatever we would raise, we would buy material in small amounts and build for them. We also had customers who could not afford conventional financial, home financing, home improvement financing. We started building for them, where we were one of the few affordable people around the area because people would charge huge amounts to actually provide the service. People would buy materials in the same route that I took, in small amounts, we would go for them, whatever we did for that particular day, for that particular service. They would call us a month later when they had enough cash to buy more materials. We would then render the service and they would pay us.

So, that is how the idea came about. We were already doing it, unconventionally, building for other people who could not get access to financing. That is basically me and my background and how I got my skills. Because of my frustration, it became a business.

**Researcher:** just maybe, maybe 2 more parts, just on that one you said you had to other team members?

**SE Non Tech 001:** whenever they would be a project we would then work together on that project. Whenever someone has a project, they would call me to come into the project. Whenever I had a project, I would also call them to work on that project.

## *Section 2: What are the moderating environmental factors of the South African social economy when considering scale through digital technology?*

**Researcher:** I'm very much interested in your view about the state of social entrepreneurship in South Africa? Very much what you think makes social enterprise relevant and what the landscape looks like.

**SE Non Tech 001:** In my opinion, I would say, even I myself, I would say I became a social entrepreneur by coincidence. Trying to register my company I went to a workshop which was organised by the NYDA at UJ. I think it was hosted by Richard Maponya. It was at this workshop way I heard the term for the 1<sup>st</sup> time called social entrepreneurship. At the time I didn't even know what social entrepreneurship meant.

**Researcher:** when was this?

**SE Non Tech 001:** this was in 2015.

**Researcher:** and you register the company in 2015?

**SE Non Tech 001:** I registered my company in 2015. I think a lot of people do not really understand social entrepreneurship. We only understand, it either and an NPO/NGO or we understand a for-profit business. What I have learned is that in other countries they actually have a structure way you are registered as a NGO or a social enterprise or a for-profit. Whereas in our country we do not have that middle part that combines the NGO with the for-profit. So I think most people are not used to the term social enterprise. The only social entrepreneurs that I know are social to premiers that I have met through the programs that am currently involved in. So it becomes a challenge, when you have to do certain tasks, like when you have to work with SARS because you have an element were you are working as NPO and would like to get the benefits of working as a NPO whilst also having a structure which is a for-profit because we have to be sustainable.

It becomes sort of complex because we do not have the structure already existing on what social entrepreneurship is and this is how you are supposed to approach certain elements. Currently I would say in South Africa we do not have a formal structure for social entrepreneurs. But, I think it is headed in that direction. The more social entrepreneurs we discover, I think that, there is actually organisation that trying to get the NPO's/NGO's to move towards being more of a social enterprise so that they can be more self-sustainable and not depend on grants. We have people trying to figure out the structure. Ya!!

**Researcher:** if you can reflect on... I think you highlighted on what aspect of the main challenges for social enterprises are, in that there is no formal structure. I am interested in your perspective on what you think are the enablers. So you talked about certain programs that you have been on?

**SE Non Tech 001:** So I've actually learned that, even with the more conventional investors, they are now moving on impact investing. You find that there's actually, you would have people that are used to finance NPOs also trying to get them to be more sustainable. Which is why the organisation are trying to get the NPO to adopt a hybrid model? In your business, you take profits in order to be able to sustain this. Those sort of things, I find that with programs like either the Red Bull, like Asoka, Y-Gap like LifeCo. They are a couple of that are popping up, but only if you know what you're looking for. Even though they are there, people do not know about them. You will find that the same into entrepreneurs revolving through the same programs.

You never see other entrepreneurs coming up, but whenever there is more awareness about the type of businesses that are out there, that are doing something for-profit and also having an impact. We find that more people are trying to move towards that. We learn about the platforms that are existing, or available to assist entrepreneurs to have a sustainable business model.

**Researcher:** maybe, you mention that entrepreneurs are moving around these programs. Do you think these programs are competitive, in that other people are not able to break in and It is only a set of few that are able to access them or do you think that there is no other social entrepreneurs for you to see new faces?

**SE Non Tech 001:** for me, I think they do not have an idea that those programs are of there. I think there was a time when I went to someone who is running some of those programs to complain that, I see the same types of faces through most of these programs. We learned that most businesses, can be sustainable for something like 3 years and some of them up to 5 years and they are no longer in

the space. What she told me is instead of having hundreds of people that can they are trying to give access to their platform and then after assisting a few business lift off the ground and then go under after a few years. They would rather work with certain entrepreneurs so what you would find that there is an entrepreneur that needs to raise something like 5,000,000 and this platform cannot give them access to the full amount. So what they would do is give you access to 1,000,000 or 1,500,000 and they would refer you to the appropriate programs saying we have already invested so much in this entrepreneur and we see that they have potential and they have already created employment. We want to make sure that they get a level where we know they can maintain and sustain that that business.

Instead of the business getting R1,000,000 or a R1,500,000 you do not get a point where you need to reach the R5,000,000 that you need. It is a full waste where somebody has already popped in up to half of what you even needed but they can't pop in the rest and the business goes under. They would rather put you through different programs to get you to that level. That is what I learned because I was complaining that you find the same people involved in this program I got another one I find the same people. I only learned afterwards that most of these entrepreneurs actually pushed for these programs to give them access to the relevant assistant that they needed. Instead of investing something and then the business goes under, I do see the same entrepreneurs but now I understand why you would actually see the same people in some of these platforms.

### *Section 3: Which scaling strategies are social impact organisations in South Africa implementing?*

**Researcher:** okay, wow. I like that. I'm very much interested in your views about the issue of scale. Very much how you define scale, what it means for your organisation, and what degree of relevance scale has for you in your business.

**SE Non Tech 001:** I think for you to actually be able to measure impact, you can come up with an idea may be applied in your community. But if it stays in your community only, most people that need the same services one get access to them. So scale was actually important when after trying the pilot, maybe in your community, then you can get to either other communities, provinces or even go internationally. You find that the problem that your community faces It is a similar problem like the problem that other communities are facing. What I have learned in my businesses that, the social issue that we are trying to address is actually huge. If I were to have a team of like 5 people it would not get to where it needs to go. So what we decided to do was kind of like, train people in my own community to actually assist in my own community. These are really a huge gap, a huge market where we can service our own community and still maintain to keep the jobs and be sustainable. And what we want to do is to take it to other communities where we train other people from the communities to be the people that are servicing their own communities. So it solves the social issue in their own communities and creates jobs in that community. Scale is actually important for your impact to actually reach everybody that needs your services.

**Researcher:** what would be the relationship between your organisation and the group of people that you are training in that other community? Would they be employees, would they be partners, or would they just the people that you are training to solve this challenge?

**SE Non Tech 001:** I would say we are looking to create employment for those people in that community and we are looking more on collaborations where we would find plumbers from that particular community and that where we would be able to get sustainable jobs with our projects and we also train people without the skills we after acquiring the skills they would be able to be self-

employed and work on some of our project. So we are looking at more of a collaboration either construction companies or even individuals.

**Researcher:** but this would be either an enterprise that already exists or somebody that is already running a planning service that comes as a partner to a project that you are doing in that community?

**SE Non Tech 001:** I think we are looking at all the options, either getting people without the skills and training them and up skill that. Get people who already have the skills and create jobs for them. And also work with construction companies because with most construction companies you would find that if there is no project people will still be laid off and they would not have any jobs. So if we come with this project, we can collaborate with... We do not want to work on projects and say we are creating employment by killing other businesses. So you find that by building a model way we create opportunities by employing people, but all the other shops in the area are going under. So you are creating a solution whilst creating another problem. So we are looking at working with existing construction companies. Working with existing plumbers, electricians, builders and also up skilling the Youth that even does not have the skills. So I think all 3 allows us to work with everybody.

That is basically the plan, if we had to service, let's say we have to build 1000 houses over there. Working with 5 people would take you up to 50 years and people can't wait for 50 years to actually get access to services. So instead we would rather work with everybody in the community and create employment. Also looking for supporting services where if we have enough plumbers, they can service the same community whenever someone has an issue. We have people in the community that can service that whole area. That is basically how we are looking at it.

**Researcher:** still sticking on that same theme, I'm very much interested in your perspective of, your organisation now, and your organisation in 5 years time or 3 years time. If you can help me with that picture within the context of scale.

**SE Non Tech 001:** my organisation now, we focus on the model itself, not even the technology. We can actually apply our model using any technology. We can actually evolve with the time, so if a new technology came along we can adapt and use the technology whilst using the same model. The model itself is the trade secret that we actually have. Currently, we are using interlocking bricks, we are hoping that in the next 5 to 10 years we are going to adapt to maybe 3D construction.

**Researcher:** That is what you mean by technology?

**SE Non Tech 001:** Ya!! With 3-D construction, you can actually find that you can build a similar project in the space of 24 hours whilst at the current time it takes about 2 weeks. So conventionally it would take you a month to build the project that we are building. Whereas with our technology it takes up to 2 weeks and with 3-D construction, it will take us a day. So that is how we are looking at it, we can actually adapt to whatever is coming out. We are looking to adapting to geo-polymer as a replacement for cement. It is more environmentally friendly, It is cheaper, and it stronger. So we are always looking for anything that is being developed, the latest developments which we can apply to our model and still have an impact whilst at the same time adapting to new technologies.

**Researcher:** So the impact is driven... So when you say the model, the model is the community centre approach, not the interlocking bricks part?

**SE Non Tech 001:** when I say the model, honestly talking about how we can service people who cannot get access to home improvement financing by using an innovative shared home financing model. That is actually our trade secret. With some businesses doing the same thing that we are doing, you would actually either have to meet their criteria for you to either get credit or pay for the

services. We can actually service where you would have a household where maybe you have grandparents living that are dependent on social grants. We can still service them without them having to contribute a penny in the project itself and still leave them with the benefits.

So the model can adapt to any new technology. We are currently looking at ways to cut our building costs and making it cheaper and quicker for them to actually obtain full ownership of the structure. Currently, we are using interlocking bricks as I said it takes us about 2 weeks to build and it is 30% cheaper. So if there is a new technology that comes along that can improve the current technology that we are using we can adapt to that and service more people and have more impact. Built quicker and build cheaper.

**Researcher:** the model is currently at the moment still applicable to a household that wants to be able to increase space and rent that out?

**SE Non Tech 001:** yes, ya!!

**Researcher:** I want us to talk about, a little bit about when you started considering scale and... Again, you have painted a picture for now. When you see yourself 5 years from now what does that scale component look like we?

**SE Non Tech 001:** currently we are looking at being sustainable. So what that would take is for us to... Because one project for us to be able to recoup whatever cost we have spent in building the project would take us maybe to up to 18 months. For us to be sustainable we need to build at least a single project for the next 18 months and then if the project can now build another project and that can start building another project. If we get a project every month we can work continuously till whenever. For us to scale, this way we can only assist 18 families which is one family every month. So the idea is to build up to 3 or 5 projects every single month. That would need us to actually make enough revenue to hire more people and build more projects. But for now, we're looking at what we think we feel we can manage to achieve. Which is a single project every month and hopefully and coming few years we would be able to do maybe 5 to 10 projects every month. By the time maybe we've adopted a new technology that enables us to build a single project every 24 hours. That way we look at, okay, we can achieve building 30 projects for the whole month and scale that up by going to different communities and doing different projects. But at the moment we are looking at a single project every single month.

**Researcher:** this is not on the script, but I wanted to ask you that one question about what impact means for you?

**SE Non Tech 001:** in that for me means, having something that is going to benefit the community. So you are solving an issue which is, the impact would be, they do not have to have that challenge any more.

**Researcher:** In the context of your business this is actually cash right? Or how do you measure impact?

**SE Non Tech 001:** our impact we measure by the number of youth that we are going to provide skills to. And also we want to see how many people we can employ, that is number 2. And the number of shacks that we can actually eradicate in the township, currently you find that let's say in my community we have about 200 to 300 shacks in my community alone. If we can eradicate those 200 shacks that would have an impact, to add to that this would create sustainable income for the homeowners. Because currently, you would find that for a similar shack the person can rent it out for something like R500 whereas if you build a formal structure for them they can earn 3 times more.

Where they can earn up to R1500 from the same space that they had a shack in. Now because it is more formal they can earn something which is more decent than the informal shack.

**Researcher:** you focused on the eradication of shacks because of the risk?

**SE Non Tech 001:** I would say, because of the gap. For me It is actually about the gap where you find that if, let's say, for example, there is access to something that can improve people's lives. Why is it that they still can access that service. For me, I feel like a makes sense for people to live in adequate housing, which is a decent formal structure. Those who can afford have it. The only people that are living there is because of circumstances not to that they are there because they love living in those informal shacks. It is because they cannot get access to it, so we are trying to solve the issue where we create access to formal and adequate housing whilst also creating affordable accommodation. You would find the people migrate to the urban areas and most of them prefer to rent in the township's because it is closer to the CBD where they can go and find jobs or school. You find people coming from rural areas coming here to study, to find opportunities and they also need to find decent accommodation. Much of them its 0 vacancies, It is already occupied so we are creating more opportunity.

#### *Section 4: What scaling factors are considered important by the founders of social enterprises?*

**Researcher:** just so that you know where we are. We are on question 4/7. We are moving fast. I wanted to ask you... I am interested in three cases that you have observed, like three social enterprises that you think are doing really well from a scale perspective in South Africa? And probably if you can just tell me a little bit about who they are, what you think they have done well and how has scale works for them?

**SE Non Tech 001:** well, I do not really know about how much that scale. But I know about one case, [Entrepreneur Name]. Is doing castor oil, he is in agriculture. He is planting castor oil seeds and turns them into biodiesel. I think his initial goal was to create a way for rural farmers to use the available land by planting castor oil, while teaching them on how to turn it into biodiesel. He would then supply that to the market. Recently he had a demand from people producing skincare products. They are looking for raw castor oil. So, I have seen how he is now supplying, from where he started, he's to manufacture a few hundred tons I think. Now he is actually about 10 to 20 times that scale. He has had to buy bigger machines. I have never spoken to him about the numbers in terms of production and who he supplies. I know that he has had to get a bigger machine to meet the demand.

So, he has already had to hire more people. He is even thinking about taking the biodiesel business and giving it to the farmers themselves. Donated equipment to them, where, whatever they produce he can buy from them and they can turn some of it into biodiesel. This is one of the cases that I know.

I also know of someone doing a similar product but they are using a different.....

**Researcher:** on [Entrepreneur Name]'s case, what did you like about the way he has done things? What stood not you?

**SE Non Tech 001:** you know, we live in a state where without research we do not really understand the value chain or how certain things work. I think we know that petrol and diesel is made from Oil which they have to mine and stuff like that. It is being sold back at a higher price, at the same time it has an impact on the environment. You find that you can actually get the same product using something that is more environmentally friendly and get the same results which you can plant it and it turns into something useful. That is what I like about that, to actually manufacture the petroleum and

the diesel itself. You can actually manufacture from something actually being grown from the soil and does not actually have an environmental impact. You can use the waste from that and actually feed, as animal feed way becomes a by-product they can service another market. So understanding how to, you kind of like wonder how it is not be applied to all of the world. All is the information being kept just to protect and million dollar industry that is already being existing in their own. So, it comes as a disruption to an existing system. Yah, I actually like that It is actually environmentally friendly and it creates jobs. It has impact in that way. And the byproduct can actually service another market.

**Researcher:** what you like about how he has scaled his business? From a tonnage perspective?

**SE Non Tech 001:** I think, just understanding how he actually started and how he had to relocate from here in Soweto and go and live in Limpopo which is a rural area just to make his business actually work. And become sustainable. Which most people would not even think about, moving from an urban area to a rural area.

**Researcher:** would you relocate?

**SE Non Tech 001:** I think with the current mind set that I have, I have a better understanding of business. I would actually go to a place where I think business would be good. I would say, from the beginnings where he comes from to where he is now that is all I can actually observe and understand. Because I have never had a better understanding of internal scaling strategy.

**Researcher:** now tell me more about case number 2?

**SE Non Tech 001:** Case number 2, I would say it is Moses, Moses is developing this other wristband which can detect asthma attacks and things like that. Having to learn just from an idea, and having to develop the product, how much it actually costs. Eish!! you can see that he has actually had to hustle. Sometimes you find out other people have to be really smart to develop certain projects, certain products. Having to find the right team or collaborations to develop the product further. He has found ways to find support even internationally. You find the product, its, like Silicon Valley things move faster there you get access to network quicker and you develop your product faster. Because us, we are a bit behind with platforms or infrastructure to assist entrepreneur. He has had to go internationally to get assistance to develop his product further, although it is not fully developed yet, he has already reached certain milestones. He has already travelled the world to get to those milestones. For me having to understand what his product does, what he has had to do to get there. I do not know about scaling in his case because he is still developing the product. I think it takes millions and millions of Rands to get to that level but he has managed to get to where he is with support from different structures.

**Researcher:** case number 3?

**SE Non Tech 001:** Vuleka?

**Researcher:** these are enterprises that you look up to? That have scaled?

**SE Non Tech 001:** these are people that I have met through different programs, and I have seen them develop their products and get to certain levels while learning. In that case, I would also take [Entrepreneur Name]. [Entrepreneur name] when I 1<sup>st</sup> met him, he was able....the night at the Red Bull program. Where we met them, where when we got into the program he was actually going out of the program. Having them stand in front of us and talk to us about the journey. You would actually look up to them that these people are actually far. They have reached certain milestones. When I applied for another program, he was one of the entrepreneurs that were selected with the same

group when we are going to the program. I was sitting there thinking that he was going to talk to us as a mentor, and he was actually part of the program where he came to the program and had applied like some of us. Looking at that in thinking that even people who have reached great lengths in their journey and are still hustling to do certain things. You find that now, you also can't relax. You would also have to add different doors to reach certain milestones. So we learned from some of these entrepreneurs who were they before us, and are still in the journey. Some of them in took them 8 or 7 years to get to where they are. We are still early in our journey we learn that we can avoid certain obstacles because they have gone through them.

He has developed a product and he has some corporate sponsors. I would say that he is one of the few people who I feel.... Because in the last meeting that we had, it was through one of the programs where we had an opportunity to pitch in front of investors. He was like one of the few entrepreneurs that were a bit ahead of most of us. But then, the amount that would have been invested would have really taken him far. So, he decided to give it to another entrepreneur that he felt would get them, would move them further. So, you learn from people like that, seeing how they deal with stuff and the journey. You think that they are already there, yet they are still in it. He is one of those people and yet he is a very humble guy, u [Entrepreneur Name]. He shares information, whatever he has acquired through his journey is not something that will stay with him and he then says are not sharing because... He gives access, you ask about.. I saw you talking to this other person.. He would ask you if you want their numbers? I can hook you up. You see, if we share the journey together. It makes it easy to build the network instead of going alone and saying I'm not sharing.

Is that enough?

### *Section 3: Which scaling strategies are social impact organisations in South Africa implementing?*

**Researcher:** thank you for that, I'm also going to move to a question that is again going back to your scaling strategy in terms of how are you planning to scale?

**SE Non Tech 001:** how am I planning to scale? Well, I have to raise enough cash for 18 projects and be self-sustainable. I'm hoping that is going to unlock doors for maybe, investments because currently, we are developing... Everything that we have achieved we have achieved through grants and different programs.

**Researcher:** so this is equity investment?

**SE Non Tech 001:** yes, ya! I think we have met someone who is actually keen to do equity investment, but we are still learning what options are. Should we take the deal or not? Or can we unlock the doors in the next coming few months? I have learned that as we move through and develop our ideas while articulating it properly. It has unlockes a few doors, we recently had an opportunity to go overseas and pitch the business. With part of the prize, we have unlocked new networks. They are looking to assist with either grant money or with the investment will stop so for us to go... We are not working on a product where we can go with a product and sell it. We actually have to raise the funds for every project that we do. So, we kind of looking at whatever available options that are actually available out there. We are currently part of their innovation hub, which has its own benefits where you can apply for grant funding either to buy machinery and stuff like that. We are looking to scale by giving access to an investment or using the available resources that we currently access to, looking at how to manage that and grow it further.

**Researcher:** okay, from a resource perspective what are the other aspects that you are considering from a scale perspective?

**SE Non Tech 001:** resources?

**Researcher:** resources, away from cash, what are the other things that you think would be enablers for you to achieve scale?

**SE Non Tech 001:** we are thinking of using the people and the communities themselves. Where it would improve our model, we can get people in the community to invest in themselves. We would take people from a particular community, let's say a 100 people, they would then put small amount towards a single project and with the returns, we would continue to do another project. And soon, as the model works more people would be comfortable inputting indecent money. We are also looking at options like Skockfels. Where if we went to the.... and see what returns they would make the bank, and if they can invest a certain amount towards the project and make good returns. That is also another option, another option that we are looking at.

**Researcher:** when you say you have looked at, meaning that you have investigated, you have considered them? Have you parked them or are you still looking at leveraging them today to what scale?

**SE Non Tech 001:** we have pitched the idea to some of them, but since we do not really have a proven model just yet and a proper structure as to how we are going to manage their money should they put their money in and how they are going to get it back. We are still working on, either it is an app, or a product that we can use. Even if It is an existing platform. We need to show that this is how it would properly be managed and have a proper paper trail. This is also how they would get their returns, how they can keep track of what is going on with investment. We are looking at existing platforms, if we got a group of individuals, how would they manage their money. It should not sound like a pyramid scheme where you would put money in your personal account and people contracted. So we are currently looking at options on how we can manage that after having a proven concept. Maybe, a few proven concepts.

**Researcher:** taking you back, when did you start thinking about scale?

**SE Non Tech 001:** I think I started thinking about scale the moment we started receiving decent grants. Because when we 1<sup>st</sup> started.

**Researcher:** what we mean by decent grants?

**SE Non Tech 001:** by decent grants, maybe if you had asked for R50,000 to buy machinery. And someone believed in your ideas so much that they are willing to part with R50,000 and put it towards your idea. Not expecting anything back, that is actually a lot of money because R50,000 can actually build a single project. That is something that would take someone months or years for them to get that type of amount. So we had to look at options where we have proper structures, proper registration, proper documentation, proper paper trail. The moment we realise that we can actually get 50 K one after another, we actually felt that okay, maybe there is actually a possibility of us getting more than 50 K.

We also have had people proposing that, if they had to give us this much money how would we be able to pay that money back? That is when we realise that okay, maybe this can actually go further than we had actually anticipated. Yes at 1<sup>st</sup> when we started we were asking for friends and family to pop in maybe R1000 to prove the concept. The moment we got support from some of these

programs and won competitions. We realise that there is actually a lot of money that we receiving and we had to show what we did with that money. That kind of unlocked the potential of this going further.

**Researcher:** did you sit down with your team members or with your mentors and say these are the different scaling options and I am going to pick this? Or how did that process evolve?

**SE Non Tech 001:** for me, I would say that we have been learning as we go. At 1<sup>st</sup> when we started, we do not want to think bigger than what we could handle. Now, this whole thing has a lot of attention to an extent that we can see that it is no longer about us. If we had to pull out someone else would actually pick up where we left off and take this to where it is supposed to go. So, we have spoken to, our mentors to see what options are actually available and how to manage certain elements of the business. Everybody has now become a visioner for the business even things that we can't see, they would take them back to us and say, you guys are actually thinking too small.

You guys need to be thinking this big. I think we have had a bit of like, enlightenment from different sources, different organisations, different individuals. We now realise that this is no longer about us, trying to get by or make a day to day living. We do manage this, this is now about the impact it can have on the people.

**Researcher:** if you were to help me just map up who are the stakeholders that have significantly influenced how you are thinking about scale and if you can tell me about that?

**SE Non Tech 001:** I would say that you know with some people, you know when they think with your money where your mouth is? You would find people coming through is that they actually want to help but they are always looking to benefit something from you. You find someone that would say I can put you through some workshops and help you think a certain way. But this is what I want in return. I find that most people actually want to help do not actually expect anything in return.

Most people who actually believe in your idea, they are willing to put their money where their mouth is. We have had programs, obviously, one of the few programs that actually gave us but validation was GIBS Festival of Ideas competition. Buy just winning that more money, it made a huge difference. Now our own family members were willing to put in their money because when in this competition actually, other people can actually see this. Then, maybe you are onto something. After having them put in whatever they were able to put in to help us go further. We started applying for other programs. I would not have applied for any other program had I not won that competition. I think it was actually a morale booster. That played its part, Red Bull played a huge part in helping us acquire their machinery itself. But, because there are other entrepreneurs who also have to benefit from the programme, there were certain things that they could not cover for us, so we had to hustle on the site to get to the milestones. So we started applying for other programs that would help us like, the Y-Gap Spark program, they assisted, they gave us grant funding to pilot. Just abide by the material to the pilot. And through the program, other programs identified as in said. We have that these programs running for social entrepreneurs, you could also get access to grant funding and some students, people who can help you develop the... Like if you had to do marketing, we can help, we can give you access to students who are studying marketing. That also helps us.

**Researcher:** can I ask you, have you looked at common scaling strategies? That you have picked up that you feel are prevalent in South Africa, and you are like all everyone seems to be doing this from a scale perspective?

**SE Non Tech 001:** okay, from your perspective, because we are trying to create access to affordable housing. I found that the government is, does these RDP's which are affordable houses. The reason that we do not want to take that route, we find that most people that get access to that are through the tender process. Whenever someone hears that you are in construction, they would then tell you about a particular tender. Everyone has to compete for those tenders.

I would tell everybody that I have my own tender system. Those are some of the common scaling models that I have looked at. Which is the RDP houses, funded by the government et cetera et cetera? For the rest, I'm always looking at different models. Even if It is a different model being applied in a different industry. If I can apply it in construction or in my business I am always looking to try new things. For me, you may find that there is actually a model that has not been invented yet but we might be using it. We know people would say, this is how It is been done over the years so this is how we are going to continue doing it. We are always looking to learn, and if something new comes along we are always looking to adapt.

## *Section 5: How does technology impact scaling strategies?*

**Researcher:** okay, I would ask you a little about, if you see digital technology having a significant impact? Not technology from a product perspective but more about digital technology. Example, you mentioned have an app for stockfels to know how they are money is doing which assets had been financed and stuff like that? What is your perspective about technology having a particular intent in how you are thinking about scale, or how you are running organisation and operations?

**SE Non Tech 001:** I think technology has benefits and its own disadvantages. So, depending on how we apply it can make life easy. So I do not see any reason why we should not have to use it. Previously, you would have to write a letter go to the post office, someone would send it, it would take a certain amount of time and right now you can actually do things instantly. So, why continue doing things the primitive way or old school if you and improved ways can actually deliver the same results in a faster way. So, with me when it comes to technology I find that it has its own benefits depending on how you apply it. Sometimes you can take the benefit in a particular industry and applied in something different which can have negative repercussions.

Some people would say, if you use technology this way, people are going to lose jobs but you find that even with technology it creates new jobs. There is always that sort of balance, where if you come with drones it might take away jobs from this industry but it creates jobs in a new industry. But, we can't say we won't adopt to technology because it will take away jobs. The way that we are doing things it is taking longer, and it does not deliver good results and there is a better way of doing things. I always say it is always better to adapt to a new way of doing things and people need to develop themselves. You always know in advance that, this is going to take over in a few years. How do I equip myself to actually be relevant at that particular point? I think it is actually about people learning to adapt, and people learning to add value by learning the new skills using technology in a year

**Researcher:** are you aware of any social enterprises that you feel are not leveraging technology effectively?

**SE Non Tech 001:** I think construction itself, has not leveraged technology for a while it is only through new innovations, like they are starting to use drones. Whilst 10 years ago you did not have drones.

**Researcher:** how do they use drones in construction?

**SE Non Tech 001:** in construction, it is actually for safety.

**Researcher:** is it to lift things higher?

**SE Non Tech 001:** is actually different ways in which you can apply it. I can't actually think of an application at the top of my mind because it is something that people are still learning. But it actually has created new jobs, you have drone operators and stuff like that. It may take away jobs from someone that used to do things in a certain way, which would still be done, but with a drone, it is cheaper and easier and also a better way of doing things. It might take away a job from the site but create more job site. We just need to keep up with the trends, you can just say I do not want a smartphone because It is taking a job away from a postman.

#### *Section 4: What scaling factors are considered important by the founders of social enterprises?*

**Researcher:** okay, I think my last question is one way I need you to dream. So, if you had a chance. Let's say your organisation has had success. Now you are the founder that needs to step away and someone else is going to run the show. If you had to go start a whole new social enterprise what factors would you consider? Or what aspects would you think are important and how you would implement those in your new venture considering scale?

**SE Non Tech 001:** there are a few elements that I feel are relevant to the business that we are doing now, but sometimes I feel if I had to start fresh and start with them it would take away the attention from what we are trying to do. For example, with the structures that we do right now we are using recycled material, we are saving on water, and we are trying to get the homeowners not to pay for the structure themselves and they can still make the money back while they keep the structures and having impact while creating jobs and all of that.

One thing that I am hoping to actually have, which I feel would have in impact is to have solar energy in the buildings themselves using the same model. I think we would have everybody using solar if they did not have the expense. But, I have learned that over the years they have found cheaper ways of developing solar energy and stuff like that. I would choose the same model, by financing, by installing the solar and using the electricity that they would normally pay for to pay back the solar itself. That is one of the things that we are actually looking at. I am also looking at products which are green. If we had to go and use the 3-D construction, the 3-D construction we still use recycled material. If we had to use geo-polymer, we would be able to apply it in the 3-D construction. So I am not trying to adapt to technology that would not be relevant in the next 5 years or in the next 10 years. I'm thinking of things that we can apply now, and we can still apply if we are using a different technology while using the same model. We can supply them, that way we would still create more jobs by installing the solar and have more people that are still going to service.

We have found entrepreneurs who are working in the plumbing sector, finding greener ways of recycling water and saving water. We are hoping to have everything working hand in hand. We are using recycled material for the bricks, we are using alternative energy for the structures themselves, we are using something that also has technology in it to save on water. So, almost everything that has everything to do with green technology, to apply in the green buildings and construction we would actually like to apply in our buildings. Ya, that is what I am looking at using 3-D construction, recycled material, geo-palmer, solar.

**Researcher:** that is with your current business, now you are dreaming. This is all successfully implemented. How would you build a business for scale if you had to do it all over again?

SE Non Tech 001: like I just said, using the same model, developing solar, finding ways to develop... let me say solar panels using something that is innovative. I have found that you can actually have a glass that can generate power instead of just having a roof made out of roof tiles, you can have something that is going to generate solar. Just having a roof that is made out of solar and still having a roof it can serve for 2 purposes and is going to be more environmentally friendly.

Those are sort of the directions that I am looking at to take.

Researcher: okay, I think we are done. Think you very much, Sir.

## Appendix G: NVIVO (CAQDAS) Code Tree – Categories, Themes and Codes

The screenshot shows the NVIVO software interface with a code tree. The tree is expanded to show 5 categories under the 'Codes' node. The categories are: 001 Founder(s) Level, 002 Social Innovation Level, 003 Organisation Level, 004 Environmental Level, and 005 Tech Scaling Factors. The 010 Quote For White Up category is also visible but not expanded.

Name	Files	References	Created on	Created by	Modified on	Modified by
001 Founder(s) Level	9	497	2020/04/04 13:42	NV	2020/04/04 13:58	NV
002 Social Innovation Level	10	846	2020/04/04 13:46	NV	2020/04/04 13:58	NV
003 Organisation Level	10	2342	2020/04/04 13:47	NV	2020/04/04 13:59	NV
004 Environmental Level	10	1039	2020/04/04 13:49	NV	2020/04/04 13:59	NV
005 Tech Scaling Factors	9	365	2020/01/01 16:18	NV	2020/04/05 14:51	NV
010 Quote For White Up	10	161	2020/05/30 13:22	NV	2021/08/18 13:45	NV

Figure 0—1: 5 Categories Developed from Codes - Main Stem in NVIVO Software

The screenshot shows the NVIVO software interface with a code tree expanded to show 001 Founder(s) Level Themes. The themes are: 001 Embeddness, 002 Perceived Moral Intensity, 003 Social Entrepreneurial Archetypes, and 004 Founder(s) Profile Attribute. The 002 Social Innovation Level, 003 Organisation Level, 004 Environmental Level, 005 Tech Scaling Factors, and 010 Quote For White Up categories are also visible but not expanded.

Name	Files	References	Created on	Created by	Modified on	Modified by
001 Founder(s) Level	9	497	2020/04/04 13:42	NV	2020/04/04 13:58	NV
001 Embeddness	9	42	2019/11/24 08:44	NV	2023/01/18 11:22	NV
002 Perceived Moral Intensity	6	42	2019/11/24 07:30	NV	2020/04/06 08:58	NV
003 Social Entrepreneurial Archetypes	6	69	2019/11/24 08:43	NV	2020/04/06 08:58	NV
004 Founder(s) Profile Attribute	9	344	2019/11/24 07:26	NV	2020/04/06 08:58	NV
002 Social Innovation Level	10	846	2020/04/04 13:46	NV	2020/04/04 13:58	NV
003 Organisation Level	10	2342	2020/04/04 13:47	NV	2020/04/04 13:59	NV
004 Environmental Level	10	1039	2020/04/04 13:49	NV	2020/04/04 13:59	NV
005 Tech Scaling Factors	9	365	2020/01/01 16:18	NV	2020/04/05 14:51	NV
010 Quote For White Up	10	161	2020/05/30 13:22	NV	2021/08/18 13:45	NV

Figure 0—2: 001 Founder(s) Level Themes – Extract from NVIVO Software

Name	Files	References	Created on	Created by	Modified on	Modified by
001 Founder(s) Level	9	497	2020/04/04 13:42	NV	2020/04/04 13:58	NV
002 Social Innovation Level	10	846	2020/04/04 13:46	NV	2020/04/04 13:58	NV
001 Innovation Problem Areas	10	173	2019/11/24 07:47	NV	2020/04/05 14:58	NV
002 Sense of Opportunity	9	209	2019/11/24 07:31	NV	2020/04/05 14:59	NV
003 Product - Program Design	10	230	2019/12/26 13:00	NV	2020/04/05 14:59	NV
004 User Adoption + Affordance	10	181	2019/12/26 14:02	NV	2020/09/26 05:39	NV
005 Innovation Scalability	5	53	2019/12/26 17:28	NV	2020/04/06 09:07	NV
003 Organisation Level	10	2342	2020/04/04 13:47	NV	2020/04/04 13:59	NV
004 Environmental Level	10	1039	2020/04/04 13:49	NV	2020/04/04 13:59	NV
005 Tech Scaling Factors	9	365	2020/01/01 16:18	NV	2020/04/05 14:51	NV
010 Quote For Write Up	10	161	2020/05/30 13:22	NV	2021/08/18 13:45	NV

Figure 0—3: 002 Social Innovation Level Themes – Extract from NVIVO Software

Name	Files	References	Created on	Created by	Modified on	Modified by
001 Founder(s) Level	9	497	2020/04/04 13:42	NV	2020/04/04 13:58	NV
002 Social Innovation Level	10	846	2020/04/04 13:46	NV	2020/04/04 13:58	NV
003 Organisation Level	10	2342	2020/04/04 13:47	NV	2020/04/04 13:59	NV
001 Organisation Profile	10	298	2020/04/12 23:10	NV	2020/04/12 23:15	NV
002 Attract Resources	10	123	2019/11/24 08:40	NV	2020/04/12 23:15	NV
003 Scale Models	10	271	2019/11/24 11:23	NV	2020/04/13 00:06	NV
004 Developing Scaling Strategy	10	894	2019/12/13 13:47	NV	2020/04/13 00:06	NV
005 Scaling Factors	7	405	2019/12/26 12:22	NV	2020/04/13 00:07	NV
006 Social Mission	8	212	2019/11/24 07:33	NV	2020/04/13 00:07	NV
007 Organisation Performance	10	78	2019/12/02 04:44	NV	2020/04/13 08:54	NV
008 Organisation Control	7	35	2019/12/08 06:59	NV	2020/04/13 01:42	NV
009 Founder Impact	6	26	2019/12/21 18:30	NV	2020/04/13 00:08	NV
004 Environmental Level	10	1039	2020/04/04 13:49	NV	2020/04/04 13:59	NV
005 Tech Scaling Factors	9	365	2020/01/01 16:18	NV	2020/04/05 14:51	NV
010 Quote For Write Up	10	161	2020/05/30 13:22	NV	2021/08/18 13:45	NV

Figure 0—4: 003 Organisation Level Themes – Extract from NVIVO Software

Name	Files	References	Created on	Created by	Modified on	Modified by
001 Founder(s) Level	9	497	2020/04/04 13:42	NV	2020/04/04 13:58	NV
002 Social Innovation Level	10	846	2020/04/04 13:46	NV	2020/04/04 13:58	NV
003 Organisation Level	10	2342	2020/04/04 13:47	NV	2020/04/04 13:59	NV
004 Environmental Level	10	1039	2020/04/04 13:49	NV	2020/04/04 13:59	NV
001 Social Enterprise Definition	4	47	2019/12/18 19:00	NV	2020/04/12 13:17	NV
002 NPO Vs SE Perceptions	7	230	2019/12/17 17:09	NV	2020/04/12 13:17	NV
003 Business Model Factors	9	285	2020/04/12 12:44	NV	2020/04/12 13:18	NV
004 Funding	6	87	2019/12/18 15:32	NV	2021/07/25 11:27	NV
005 Support Structures	8	132	2019/12/17 18:35	NV	2020/04/12 13:19	NV
006 Scale Partners	9	92	2019/11/24 23:17	NV	2020/04/12 13:20	NV
007 Ecosystem + Community	6	80	2020/04/12 22:23	NV	2020/04/12 22:56	NV
008 Digital Infrastructure	8	52	2019/11/24 19:29	NV	2020/04/12 13:22	NV
009 Skills and Knowledge	7	25	2019/11/24 09:04	NV	2020/04/12 13:22	NV
010 Race Factors	1	9	2020/04/04 19:04	NV	2020/04/12 13:22	NV
005 Tech Scaling Factors	9	365	2020/01/01 16:18	NV	2020/04/05 14:51	NV
010 Quote For Write Up	10	161	2020/05/30 13:22	NV	2021/08/18 13:45	NV

Figure 0—5: 004 Environmental Level Themes – Extract from NVIVO Software

Name	Files	References	Created on	Created by	Modified on	Modified by
001 Founder(s) Level	9	497	2020/04/04 13:42	NV	2020/04/04 13:58	NV
002 Social Innovation Level	10	846	2020/04/04 13:46	NV	2020/04/04 13:58	NV
003 Organisation Level	10	2342	2020/04/04 13:47	NV	2020/04/04 13:59	NV
004 Environmental Level	10	1039	2020/04/04 13:49	NV	2020/04/04 13:59	NV
005 Tech Scaling Factors	9	365	2020/01/01 16:18	NV	2020/04/05 14:51	NV
001 Digital Tech Perception	4	66	2020/01/04 13:58	NV	2020/04/12 23:14	NV
002 Increase Options	8	53	2020/01/01 16:52	NV	2020/04/06 15:14	NV
003 Efficiency + Flexibility	5	46	2020/01/01 16:21	NV	2020/04/06 15:14	NV
004 Human Tech Interplay	6	40	2020/01/01 16:27	NV	2020/04/06 15:14	NV
005 Virality + Replicability	6	39	2020/01/01 16:18	NV	2020/04/06 15:16	NV
006 Willingness To Embrace	4	33	2020/01/05 17:08	NV	2020/04/06 15:18	NV
007 Degree Of Digital Innovation	6	31	2019/12/08 08:47	NV	2020/04/06 15:19	NV
008 Execution Differentiation	6	24	2020/01/01 16:31	NV	2020/04/06 15:19	NV
009 Changes in Tech	3	17	2020/01/04 12:44	NV	2020/04/06 15:19	NV
010 Social Impact of Tech	2	16	2020/01/01 16:39	NV	2020/04/06 15:19	NV
010 Quote For Write Up	10	161	2020/05/30 13:22	NV	2021/08/18 13:45	NV

Figure 0—6: 005 Digital Technology Themes – Extract from NVIVO Software

The screenshot shows the NVIVO software interface with a list of codes. The '001 Founder(s) Level' code is expanded to show its sub-codes. The table below represents the data visible in the screenshot.

Name	Files	References	Created on	Created by	Modified on	Modified by
001 Founder(s) Level	9	497	2020/04/04 13:42	NV	2020/04/04 13:58	NV
001 Embeddness	9	42	2019/11/24 08:44	NV	2023/01/18 11:22	NV
001 Community Connection	6	17	2019/11/24 08:46	NV	2020/04/13 13:13	NV
002 Community Relationships	6	23	2019/11/24 09:42	NV	2020/05/02 10:31	NV
002 Perceived Moral Intensity	6	42	2019/11/24 07:30	NV	2020/04/06 08:58	NV
001 Proximity	3	19	2019/11/24 07:30	NV	2020/04/06 09:28	NV
002 Magnitude of consequences	3	11	2019/11/24 07:38	NV	2020/04/04 18:44	NV
003 Probability of effect	2	5	2019/12/03 03:06	NV	2020/04/04 18:44	NV
004 Temporal Immediacy	3	4	2019/12/21 11:31	NV	2020/04/06 09:28	NV
005 Concentration of effect	1	2	2019/12/21 12:00	NV	2020/04/04 18:45	NV
003 Social Entrepreneurial Archetypes	6	69	2019/11/24 08:43	NV	2020/04/06 08:58	NV
001 Social Bricoleur	6	29	2019/11/24 08:43	NV	2020/04/06 09:29	NV
002 Social Constructionist	3	36	2019/11/24 20:25	NV	2020/04/05 08:28	NV
003 Social Engineers	1	4	2019/12/15 15:56	NV	2020/04/04 18:46	NV
004 Founder(s) Profile Attribute	9	344	2019/11/24 07:26	NV	2020/04/06 08:58	NV
002 Social Innovation Level	10	846	2020/04/04 13:46	NV	2020/04/04 13:58	NV
003 Organisation Level	10	2342	2020/04/04 13:47	NV	2020/04/04 13:59	NV
004 Environmental Level	10	1039	2020/04/04 13:49	NV	2020/04/04 13:59	NV
005 Tech Scaling Factors	9	365	2020/01/01 16:18	NV	2020/04/05 14:51	NV
010 Quote For Write Up	10	161	2020/05/30 13:22	NV	2021/08/18 13:45	NV

Figure 0—7: 001 Founder(s) Level Codes (Part 1 of 2) – Extract from NVIVO Software

The screenshot shows the NVIVO software interface with a list of codes. The '001 Founder(s) Level' code is expanded to show its sub-codes. The table below represents the data visible in the screenshot.

Name	Files	References	Created on	Created by	Modified on	Modified by
001 Founder(s) Level	9	497	2020/04/04 13:42	NV	2020/04/04 13:58	NV
001 Embeddness	9	42	2019/11/24 08:44	NV	2023/01/18 11:22	NV
002 Perceived Moral Intensity	6	42	2019/11/24 07:30	NV	2020/04/06 08:58	NV
003 Social Entrepreneurial Archetypes	6	69	2019/11/24 08:43	NV	2020/04/06 08:58	NV
004 Founder(s) Profile Attribute	9	344	2019/11/24 07:26	NV	2020/04/06 08:58	NV
001 Professional Background	6	56	2019/11/24 07:28	NV	2020/04/05 08:52	NV
002 Personal Network	7	55	2019/12/13 13:51	NV	2020/04/05 08:52	NV
003 Personal Purpose	7	52	2019/12/18 17:13	NV	2020/04/12 22:28	NV
004 Field Of Study	5	37	2019/11/24 07:27	NV	2020/04/05 08:52	NV
005 Personal Sacrifice	4	29	2019/11/24 19:58	NV	2020/04/13 11:47	NV
006 Perseverance and Persistence	7	29	2019/11/24 09:25	NV	2020/04/13 11:47	NV
007 Role Evolution	4	20	2019/11/24 08:48	NV	2020/04/05 08:53	NV
008 Personal Background	4	17	2020/04/05 06:32	NV	2020/04/06 14:25	NV
009 Personal Growth and Reflection	5	14	2020/04/05 06:54	NV	2020/04/05 08:53	NV
010 Personal Ambition	5	15	2020/04/05 06:34	NV	2020/04/05 14:27	NV
011 Personal Values	3	16	2020/04/04 19:01	NV	2020/04/13 12:24	NV
002 Social Innovation Level	10	846	2020/04/04 13:46	NV	2020/04/04 13:58	NV
003 Organisation Level	10	2342	2020/04/04 13:47	NV	2020/04/04 13:59	NV
004 Environmental Level	10	1039	2020/04/04 13:49	NV	2020/04/04 13:59	NV
005 Tech Scaling Factors	9	365	2020/01/01 16:18	NV	2020/04/05 14:51	NV
010 Quote For Write Up	10	161	2020/05/30 13:22	NV	2021/08/18 13:45	NV

Figure 0—8: 001 Founder(s) Level Codes (Part 2 of 2) – Extract from NVIVO Software

The screenshot shows the NVIVO software interface with a list of codes. The '002 Social Innovation Level' is expanded to show its sub-codes. The table below represents the data visible in the screenshot.

Name	Files	References	Created on	Created by	Modified on	Modified by
001 Founder(s) Level	9	497	2020/04/04 13:42	NV	2020/04/04 13:58	NV
002 Social Innovation Level	10	846	2020/04/04 13:46	NV	2020/04/04 13:58	NV
001 Innovation Problem Areas	10	173	2019/11/24 07:47	NV	2020/04/05 14:58	NV
Access to Affordable Water	1	8	2019/12/13 15:21	NV	2019/12/17 11:15	NV
Access to Creative Arts	4	10	2019/12/13 12:51	NV	2020/01/05 18:11	NV
Access to Economic Growth and Trade	2	12	2019/12/13 17:19	NV	2020/06/27 17:39	NV
Access to Education	5	44	2019/11/24 11:22	NV	2020/04/06 09:24	NV
Access to Employment and Workforce Development	3	24	2019/12/02 04:32	NV	2020/06/28 10:18	NV
Access to Healthcare + Wellness	5	14	2019/12/02 05:19	NV	2020/01/01 16:38	NV
Access to Housing and Infrastructure	5	12	2019/12/12 06:38	NV	2020/06/27 20:03	NV
Access to Nutritious Food	1	3	2019/12/12 16:21	NV	2019/12/17 11:17	NV
Access to Trade Opportunity	1	6	2019/12/13 14:28	NV	2019/12/17 11:18	NV
Disaster Management	2	4	2019/12/03 02:53	NV	2019/12/22 14:26	NV
Group Community Buying	2	8	2019/12/03 03:30	NV	2020/01/04 17:04	NV
Improving Waste Management	4	25	2019/12/08 00:37	NV	2019/12/24 11:43	NV
002 Sense of Opportunity	9	209	2019/11/24 07:31	NV	2020/04/05 14:59	NV
003 Product - Program Design	10	230	2019/12/26 13:00	NV	2020/04/05 14:59	NV
004 User Adoption + Affordance	10	181	2019/12/26 14:02	NV	2020/09/26 05:39	NV
005 Innovation Scalability	5	53	2019/12/26 17:28	NV	2020/04/06 09:07	NV
003 Organisation Level	10	2342	2020/04/04 13:47	NV	2020/04/04 13:59	NV
004 Environmental Level	10	1039	2020/04/04 13:49	NV	2020/04/04 13:59	NV
005 Tech Scaling Factors	9	365	2020/01/01 16:18	NV	2020/04/05 14:51	NV
010 Quote For Write Up	10	161	2020/05/30 13:22	NV	2021/08/18 13:45	NV

Figure 0—9: 002 Social Innovation Level Codes (Part 1 of 2) – Extract from NVIVO Software

The screenshot shows the NVIVO software interface with a list of codes. The '002 Social Innovation Level' is expanded to show its sub-codes. The table below represents the data visible in the screenshot.

Name	Files	References	Created on	Created by	Modified on	Modified by
001 Founder(s) Level	9	497	2020/04/04 13:42	NV	2020/04/04 13:58	NV
002 Social Innovation Level	10	846	2020/04/04 13:46	NV	2020/04/04 13:58	NV
001 Innovation Problem Areas	10	173	2019/11/24 07:47	NV	2020/04/05 14:58	NV
002 Sense of Opportunity	9	209	2019/11/24 07:31	NV	2020/04/05 14:59	NV
001 Opportunity Recognition	9	65	2019/11/24 07:31	NV	2020/04/06 14:26	NV
002 Opportunity Evaluation	9	62	2019/11/24 07:39	NV	2020/04/06 14:29	NV
003 Opportunity Implementation	7	50	2019/12/02 05:12	NV	2020/04/06 14:23	NV
004 Sense of Scale	2	28	2020/04/04 15:55	NV	2020/04/05 14:30	NV
003 Product - Program Design	10	230	2019/12/26 13:00	NV	2020/04/05 14:59	NV
001 Context Driven Design	6	72	2019/11/24 09:05	NV	2020/04/13 09:00	NV
002 Rigorous Testing + Iteration	9	73	2019/12/26 13:14	NV	2020/09/12 07:26	NV
003 User Centered Design	10	64	2019/12/02 05:31	NV	2020/09/06 07:41	NV
004 User Adoption + Affordance	10	181	2019/12/26 14:02	NV	2020/09/26 05:39	NV
Market Feedback	8	40	2019/11/24 08:53	NV	2020/04/06 14:22	NV
Perceived Benefit-Value	10	49	2019/11/24 09:10	NV	2020/04/06 14:32	NV
Tech Literacy	1	9	2020/01/04 13:13	NV	2020/01/05 08:11	NV
Value Proposition	5	37	2019/12/27 13:42	NV	2020/04/06 14:19	NV
005 Innovation Scalability	5	53	2019/12/26 17:28	NV	2020/04/06 09:07	NV
003 Organisation Level	10	2342	2020/04/04 13:47	NV	2020/04/04 13:59	NV
004 Environmental Level	10	1039	2020/04/04 13:49	NV	2020/04/04 13:59	NV
005 Tech Scaling Factors	9	365	2020/01/01 16:18	NV	2020/04/05 14:51	NV
010 Quote For Write Up	10	161	2020/05/30 13:22	NV	2021/08/18 13:45	NV

Figure 0—10: 002 Social Innovation Level Codes (Part 2 of 2) – Extract from NVIVO Software

The screenshot shows the NVIVO software interface with a list of codes. The '003 Organisation Level' code is expanded to show its sub-codes. The table below represents the data visible in the screenshot.

Name	Files	References	Created on	Created by	Modified on	Modified by
001 Founder(s) Level	9	497	2020/04/04 13:42	NV	2020/04/04 13:58	NV
002 Social Innovation Level	10	846	2020/04/04 13:46	NV	2020/04/04 13:58	NV
003 Organisation Level	10	2342	2020/04/04 13:47	NV	2020/04/04 13:59	NV
001 Organisation Profile	10	298	2020/04/12 23:10	NV	2020/04/12 23:15	NV
001 Organisation Structure	9	77	2019/12/07 21:56	NV	2020/04/13 12:31	NV
002 Team + Skills	8	73	2019/12/18 15:30	NV	2020/04/13 09:01	NV
003 Legitimacy + Credibility	8	111	2019/11/24 07:45	NV	2020/04/12 23:32	NV
004 Organisation Timeline	6	37	2019/11/24 08:54	NV	2020/10/04 11:04	NV
002 Attract Resources	10	123	2019/11/24 08:40	NV	2020/04/12 23:15	NV
Resources Financial Capital	8	22	2019/12/02 05:42	NV	2020/04/12 15:11	NV
Resources Gap Mapping	3	8	2019/12/17 17:18	NV	2019/12/24 13:08	NV
Resources Human Capital	7	69	2019/11/24 09:32	NV	2020/04/13 00:19	NV
Resources Social Capital	4	17	2019/12/18 11:45	NV	2020/04/04 19:27	NV
003 Scale Models	10	271	2019/11/24 11:23	NV	2020/04/13 00:06	NV
004 Developing Scaling Strategy	10	894	2019/12/13 13:47	NV	2020/04/13 00:06	NV
005 Scaling Factors	7	405	2019/12/26 12:22	NV	2020/04/13 00:07	NV
006 Social Mission	8	212	2019/11/24 07:33	NV	2020/04/13 00:07	NV
007 Organisation Performance	10	78	2019/12/02 04:44	NV	2020/04/13 08:54	NV
008 Organisation Control	7	35	2019/12/08 06:59	NV	2020/04/13 01:42	NV
009 Founder Impact	6	26	2019/12/21 18:30	NV	2020/04/13 00:08	NV
004 Environmental Level	10	1039	2020/04/04 13:49	NV	2020/04/04 13:59	NV
005 Tech Scaling Factors	9	365	2020/01/01 16:18	NV	2020/04/05 14:51	NV
010 Quote For Write Up	10	161	2020/05/30 13:22	NV	2021/08/18 13:45	NV

Figure 0—11: 003 Organisation Level Codes (Part 1 of 5) – Extract from NVIVO Software

The screenshot shows the NVIVO software interface with a list of codes. The '003 Organisation Level' code is expanded to show its sub-codes. The table below represents the data visible in the screenshot.

Name	Files	References	Created on	Created by	Modified on	Modified by
001 Founder(s) Level	9	497	2020/04/04 13:42	NV	2020/04/04 13:58	NV
002 Social Innovation Level	10	846	2020/04/04 13:46	NV	2020/04/04 13:58	NV
003 Organisation Level	10	2342	2020/04/04 13:47	NV	2020/04/04 13:59	NV
001 Organisation Profile	10	298	2020/04/12 23:10	NV	2020/04/12 23:15	NV
002 Attract Resources	10	123	2019/11/24 08:40	NV	2020/04/12 23:15	NV
003 Scale Models	10	271	2019/11/24 11:23	NV	2020/04/13 00:06	NV
004 Developing Scaling Strategy	10	894	2019/12/13 13:47	NV	2020/04/13 00:06	NV
001 Defining Scale	5	96	2019/12/21 10:59	NV	2020/04/13 13:14	NV
002 Building Scaling Strategy	8	374	2019/12/21 11:19	NV	2020/04/13 01:10	NV
003 Scale Through Emergence	8	122	2019/12/21 12:15	NV	2020/04/13 11:29	NV
004 Scale Development Role Players	4	102	2019/12/21 12:19	NV	2020/04/13 08:54	NV
005 Scaling Cost	8	71	2019/12/21 13:24	NV	2020/04/13 13:23	NV
006 Access Channels	5	44	2019/12/21 11:53	NV	2020/04/13 00:56	NV
007 Scale Concerns	4	42	2019/12/21 11:06	NV	2020/04/13 12:44	NV
005 Scaling Factors	7	405	2019/12/26 12:22	NV	2020/04/13 00:07	NV
006 Social Mission	8	212	2019/11/24 07:33	NV	2020/04/13 00:07	NV
007 Organisation Performance	10	78	2019/12/02 04:44	NV	2020/04/13 08:54	NV
008 Organisation Control	7	35	2019/12/08 06:59	NV	2020/04/13 01:42	NV
009 Founder Impact	6	26	2019/12/21 18:30	NV	2020/04/13 00:08	NV
004 Environmental Level	10	1039	2020/04/04 13:49	NV	2020/04/04 13:59	NV
005 Tech Scaling Factors	9	365	2020/01/01 16:18	NV	2020/04/05 14:51	NV
010 Quote For Write Up	10	161	2020/05/30 13:22	NV	2021/08/18 13:45	NV

Figure 0—12: 003 Organisation Level Codes (Part 2 of 5) – Extract from NVIVO Software

The screenshot shows the NVIVO software interface with a list of codes. The '003 Organisation Level' code is expanded to show its sub-codes. The table below represents the data visible in the screenshot.

Name	Files	References	Created on	Created by	Modified on	Modified by
002 Social Innovation Level	10	846	2020/04/04 13:46	NV	2020/04/04 13:58	NV
003 Organisation Level	10	2342	2020/04/04 13:47	NV	2020/04/04 13:59	NV
001 Organisation Profile	10	298	2020/04/12 23:10	NV	2020/04/12 23:15	NV
002 Attract Resources	10	123	2019/11/24 08:40	NV	2020/04/12 23:15	NV
003 Scale Models	10	271	2019/11/24 11:23	NV	2020/04/13 00:06	NV
004 Developing Scaling Strategy	10	894	2019/12/13 13:47	NV	2020/04/13 00:06	NV
005 Scaling Factors	7	405	2019/12/26 12:22	NV	2020/04/13 00:07	NV
001 Diversified Earnings Generation	2	72	2019/12/26 12:32	NV	2020/04/13 15:54	NV
002 Scale Resourcing	3	58	2019/12/26 12:26	NV	2020/04/13 15:55	NV
003 Brand Positioning	3	57	2019/12/26 12:35	NV	2020/04/13 15:55	NV
004 Organisational Impact	3	45	2019/12/26 17:22	NV	2020/04/13 15:56	NV
005 Partnership and Alliance	5	49	2019/12/26 20:04	NV	2020/04/13 15:56	NV
006 Skilled Team	3	41	2019/12/26 15:21	NV	2020/04/13 15:57	NV
007 End In Mind	2	38	2019/12/26 13:16	NV	2020/04/13 15:58	NV
008 Organisational Reach	3	22	2019/12/27 12:29	NV	2020/04/13 15:58	NV
009 Client Centricity	1	12	2019/12/26 16:22	NV	2020/04/13 15:58	NV
010 Timing	2	11	2019/12/26 18:53	NV	2020/04/13 15:59	NV
006 Social Mission	8	212	2019/11/24 07:33	NV	2020/04/13 00:07	NV
007 Organisation Performance	10	78	2019/12/02 04:44	NV	2020/04/13 08:54	NV
008 Organisation Control	7	35	2019/12/08 06:59	NV	2020/04/13 01:42	NV
009 Founder Impact	6	26	2019/12/21 18:30	NV	2020/04/13 00:08	NV
004 Environmental Level	10	1039	2020/04/04 13:49	NV	2020/04/04 13:59	NV
005 Tech Scaling Factors	9	365	2020/01/01 16:18	NV	2020/04/05 14:51	NV

Figure 0—13: 003 Organisation Level Codes (Part 3 of 5) – Extract from NVIVO Software

The screenshot shows the NVIVO software interface with a list of codes. The '003 Organisation Level' code is expanded to show its sub-codes. The table below represents the data visible in the screenshot.

Name	Files	References	Created on	Created by	Modified on	Modified by
001 Founder(s) Level	9	497	2020/04/04 13:42	NV	2020/04/04 13:58	NV
002 Social Innovation Level	10	846	2020/04/04 13:46	NV	2020/04/04 13:58	NV
003 Organisation Level	10	2342	2020/04/04 13:47	NV	2020/04/04 13:59	NV
001 Organisation Profile	10	298	2020/04/12 23:10	NV	2020/04/12 23:15	NV
002 Attract Resources	10	123	2019/11/24 08:40	NV	2020/04/12 23:15	NV
003 Scale Models	10	271	2019/11/24 11:23	NV	2020/04/13 00:06	NV
004 Developing Scaling Strategy	10	894	2019/12/13 13:47	NV	2020/04/13 00:06	NV
005 Scaling Factors	7	405	2019/12/26 12:22	NV	2020/04/13 00:07	NV
006 Social Mission	8	212	2019/11/24 07:33	NV	2020/04/13 00:07	NV
001 Commercial Logic vs Social Logics	7	86	2019/12/03 03:04	NV	2020/04/13 01:39	NV
002 Multiple Logics Co Existing	6	34	2019/12/03 02:59	NV	2020/04/13 01:40	NV
003 Social Issue	3	63	2019/11/24 07:34	NV	2020/04/13 01:40	NV
004 Theory of Change	4	19	2019/12/03 03:02	NV	2020/04/13 01:41	NV
005 Vision Alignment	2	4	2019/12/21 11:09	NV	2020/04/13 01:41	NV
007 Organisation Performance	10	78	2019/12/02 04:44	NV	2020/04/13 08:54	NV
008 Organisation Control	7	35	2019/12/08 06:59	NV	2020/04/13 01:42	NV
009 Founder Impact	6	26	2019/12/21 18:30	NV	2020/04/13 00:08	NV
004 Environmental Level	10	1039	2020/04/04 13:49	NV	2020/04/04 13:59	NV
005 Tech Scaling Factors	9	365	2020/01/01 16:18	NV	2020/04/05 14:51	NV
010 Quote For Write Up	10	161	2020/05/30 13:22	NV	2021/08/18 13:45	NV

Figure 0—14: 003 Organisation Level Codes (Part 4 of 5) – Extract from NVIVO Software

Name	Files	References	Created on	Created by	Modified on	Modified by
001 Founder(s) Level	9	497	2020/04/04 13:42	NV	2020/04/04 13:58	NV
002 Social Innovation Level	10	846	2020/04/04 13:46	NV	2020/04/04 13:58	NV
003 Organisation Level	10	2342	2020/04/04 13:47	NV	2020/04/04 13:59	NV
001 Organisation Profile	10	298	2020/04/12 23:10	NV	2020/04/12 23:15	NV
002 Attract Resources	10	123	2019/11/24 08:40	NV	2020/04/12 23:15	NV
003 Scale Models	10	271	2019/11/24 11:23	NV	2020/04/13 00:06	NV
004 Developing Scaling Strategy	10	894	2019/12/13 13:47	NV	2020/04/13 00:06	NV
005 Scaling Factors	7	405	2019/12/26 12:22	NV	2020/04/13 00:07	NV
006 Social Mission	8	212	2019/11/24 07:33	NV	2020/04/13 00:07	NV
007 Organisation Performance	10	78	2019/12/02 04:44	NV	2020/04/13 08:54	NV
008 Organisation Control	7	35	2019/12/08 06:59	NV	2020/04/13 01:42	NV
001 Desire for Control	5	13	2019/12/08 07:45	NV	2020/04/13 01:38	NV
002 Reducing Levels of Control	3	9	2019/12/08 06:59	NV	2020/04/13 01:38	NV
003 Tight Quality Control	5	8	2019/12/08 08:42	NV	2020/04/13 01:39	NV
004 Centralized Control	3	4	2019/12/08 08:43	NV	2020/04/13 01:39	NV
009 Founder Impact	6	26	2019/12/21 18:30	NV	2020/04/13 00:08	NV
001 Organizational Dependency on Founder	6	17	2019/12/21 18:51	NV	2020/04/13 01:37	NV
002 Founder Reduced Influence	1	5	2019/12/21 20:59	NV	2020/04/13 01:37	NV
003 Sole Repository of Knowledge	2	3	2019/12/21 18:31	NV	2020/04/13 01:37	NV
004 Environmental Level	10	1039	2020/04/04 13:49	NV	2020/04/04 13:59	NV
005 Tech Scaling Factors	9	365	2020/01/01 16:18	NV	2020/04/05 14:51	NV
010 Quote For White Up	10	161	2020/05/30 13:22	NV	2021/08/18 13:45	NV

Figure 0—15: 003 Organisation Level Codes (Part 5 of 5) – Extract from NVIVO Software

Name	Files	References	Created on	Created by	Modified on	Modified by
001 Founder(s) Level	9	497	2020/04/04 13:42	NV	2020/04/04 13:58	NV
002 Social Innovation Level	10	846	2020/04/04 13:46	NV	2020/04/04 13:58	NV
003 Organisation Level	10	2342	2020/04/04 13:47	NV	2020/04/04 13:59	NV
004 Environmental Level	10	1039	2020/04/04 13:49	NV	2020/04/04 13:59	NV
001 Social Enterprise Definition	4	47	2019/12/18 19:00	NV	2020/04/12 13:17	NV
002 NPO Vs SE Perceptions	7	230	2019/12/17 17:09	NV	2020/04/12 13:17	NV
001 Social Entrepreneurship Perception	6	140	2019/12/17 18:40	NV	2020/04/13 13:27	NV
002 NPO Perception	6	75	2019/12/17 17:53	NV	2020/04/13 01:20	NV
003 Business Model Factors	9	285	2020/04/12 12:44	NV	2020/04/12 13:18	NV
001 Earnings Generation	8	82	2019/12/18 11:15	NV	2020/04/12 22:09	NV
002 Sustainability Drive	9	74	2019/12/18 10:43	NV	2020/04/13 01:20	NV
003 Building Trust	5	54	2019/12/20 15:40	NV	2020/04/12 22:11	NV
004 Competitive	5	46	2019/12/17 17:10	NV	2020/04/12 22:12	NV
005 SE Business Model	3	29	2019/12/18 15:36	NV	2020/04/12 22:12	NV
004 Funding	6	87	2019/12/18 15:32	NV	2021/07/25 11:27	NV
005 Support Structures	8	132	2019/12/17 18:35	NV	2020/04/12 13:19	NV
006 Scale Partners	9	92	2019/11/24 23:17	NV	2020/04/12 13:20	NV
007 Ecosystem – Community	6	80	2020/04/12 22:23	NV	2020/04/12 22:56	NV
008 Digital Infrastructure	8	52	2019/11/24 19:29	NV	2020/04/12 13:22	NV
009 Skills and Knowledge	7	25	2019/11/24 09:04	NV	2020/04/12 13:22	NV
010 Race Factors	1	9	2020/04/04 19:04	NV	2020/04/12 13:22	NV
005 Tech Scaling Factors	9	365	2020/01/01 16:18	NV	2020/04/05 14:51	NV
010 Quote For White Up	10	161	2020/05/30 13:22	NV	2021/08/18 13:45	NV

Figure 0—16: 004 Environmental Level Codes (Part 1 of 5) – Extract from NVIVO Software

Name	Files	References	Created on	Created by	Modified on	Modified by
001 Founder(s) Level	9	497	2020/04/04 13:42	NV	2020/04/04 13:58	NV
002 Social Innovation Level	10	846	2020/04/04 13:46	NV	2020/04/04 13:58	NV
003 Organisation Level	10	2342	2020/04/04 13:47	NV	2020/04/04 13:59	NV
004 Environmental Level	10	1039	2020/04/04 13:49	NV	2020/04/04 13:59	NV
001 Social Enterprise Definition	4	47	2019/12/18 19:00	NV	2020/04/12 13:17	NV
002 NPO Vs SE Perceptions	7	230	2019/12/17 17:09	NV	2020/04/12 13:17	NV
003 Business Model Factors	9	285	2020/04/12 12:44	NV	2020/04/12 13:18	NV
004 Funding	6	87	2019/12/18 15:32	NV	2021/07/25 11:27	NV
001 Funding Availability	2	10	2019/12/26 19:10	NV	2020/04/12 22:15	NV
002 Funding From Corporates	6	70	2019/12/17 18:35	NV	2020/04/12 22:15	NV
003 Funding Allocation	4	23	2019/12/18 10:41	NV	2020/04/12 22:15	NV
004 Funding Competition	4	15	2019/12/18 11:49	NV	2020/04/12 22:16	NV
005 Funding Scale	2	15	2019/12/18 17:59	NV	2020/04/12 22:16	NV
005 Support Structures	8	132	2019/12/17 18:35	NV	2020/04/12 13:19	NV
006 Scale Partners	9	92	2019/11/24 23:17	NV	2020/04/12 13:20	NV
007 Ecosystem + Community	6	80	2020/04/12 22:23	NV	2020/04/12 22:56	NV
008 Digital Infrastructure	8	52	2019/11/24 19:29	NV	2020/04/12 13:22	NV
009 Skills and Knowledge	7	25	2019/11/24 09:04	NV	2020/04/12 13:22	NV
010 Race Factors	1	9	2020/04/04 19:04	NV	2020/04/12 13:22	NV
005 Tech Scaling Factors	9	365	2020/01/01 16:18	NV	2020/04/05 14:51	NV
010 Quote For Write Up	10	161	2020/05/30 13:22	NV	2021/08/18 13:45	NV

Figure 0—17: 004 Environmental Level Codes (Part 2 of 5) – Extract from NVIVO Software

Name	Files	References	Created on	Created by	Modified on	Modified by
001 Founder(s) Level	9	497	2020/04/04 13:42	NV	2020/04/04 13:58	NV
002 Social Innovation Level	10	846	2020/04/04 13:46	NV	2020/04/04 13:58	NV
003 Organisation Level	10	2342	2020/04/04 13:47	NV	2020/04/04 13:59	NV
004 Environmental Level	10	1039	2020/04/04 13:49	NV	2020/04/04 13:59	NV
001 Social Enterprise Definition	4	47	2019/12/18 19:00	NV	2020/04/12 13:17	NV
002 NPO Vs SE Perceptions	7	230	2019/12/17 17:09	NV	2020/04/12 13:17	NV
003 Business Model Factors	9	285	2020/04/12 12:44	NV	2020/04/12 13:18	NV
004 Funding	6	87	2019/12/18 15:32	NV	2021/07/25 11:27	NV
005 Support Structures	8	132	2019/12/17 18:35	NV	2020/04/12 13:19	NV
001 Programs, Incubators & Accelerators	7	46	2019/12/17 18:44	NV	2020/04/12 22:18	NV
002 Support Type Alignment	3	41	2019/12/17 19:04	NV	2020/04/12 22:18	NV
003 Government Support	4	22	2019/12/20 15:36	NV	2020/04/12 22:50	NV
004 Entrepreneurial Education	2	6	2019/12/20 11:28	NV	2020/04/12 22:35	NV
006 Scale Partners	9	92	2019/11/24 23:17	NV	2020/04/12 13:20	NV
007 Ecosystem + Community	6	80	2020/04/12 22:23	NV	2020/04/12 22:56	NV
008 Digital Infrastructure	8	52	2019/11/24 19:29	NV	2020/04/12 13:22	NV
009 Skills and Knowledge	7	25	2019/11/24 09:04	NV	2020/04/12 13:22	NV
010 Race Factors	1	9	2020/04/04 19:04	NV	2020/04/12 13:22	NV
005 Tech Scaling Factors	9	365	2020/01/01 16:18	NV	2020/04/05 14:51	NV
010 Quote For Write Up	10	161	2020/05/30 13:22	NV	2021/08/18 13:45	NV

Figure 0—18: 004 Environmental Level Codes (Part 3 of 5) – Extract from NVIVO Software

Name	Files	References	Created on	Created by	Modified on	Modified by
001 Founder(s) Level	9	497	2020/04/04 13:42	NV	2020/04/04 13:58	NV
002 Social Innovation Level	10	846	2020/04/04 13:46	NV	2020/04/04 13:58	NV
003 Organisation Level	10	2342	2020/04/04 13:47	NV	2020/04/04 13:59	NV
004 Environmental Level	10	1039	2020/04/04 13:49	NV	2020/04/04 13:59	NV
001 Social Enterprise Definition	4	47	2019/12/18 19:00	NV	2020/04/12 13:17	NV
002 NPO Vs SE Perceptions	7	230	2019/12/17 17:09	NV	2020/04/12 13:17	NV
003 Business Model Factors	9	285	2020/04/12 12:44	NV	2020/04/12 13:18	NV
004 Funding	6	87	2019/12/18 15:32	NV	2021/07/25 11:27	NV
005 Support Structures	8	132	2019/12/17 18:35	NV	2020/04/12 13:19	NV
006 Scale Partners	9	92	2019/11/24 23:17	NV	2020/04/12 13:20	NV
001 Partner Organisation Mission	6	31	2019/12/17 17:49	NV	2020/04/12 22:19	NV
002 Resources Partners	7	28	2019/12/17 17:20	NV	2020/04/12 22:34	NV
007 Ecosystem + Community	6	80	2020/04/12 22:23	NV	2020/04/12 22:56	NV
Ecosystem Leadership	3	41	2019/12/18 18:56	NV	2020/04/13 15:41	NV
Few Local Scalars	1	12	2019/12/26 12:42	NV	2020/04/13 15:50	NV
SE Communities	6	27	2019/12/20 11:33	NV	2020/04/12 22:54	NV
008 Digital Infrastructure	8	52	2019/11/24 19:29	NV	2020/04/12 13:22	NV
009 Skills and Knowledge	7	25	2019/11/24 09:04	NV	2020/04/12 13:22	NV
010 Race Factors	1	9	2020/04/04 19:04	NV	2020/04/12 13:22	NV
005 Tech Scaling Factors	9	365	2020/01/01 16:18	NV	2020/04/05 14:51	NV
010 Quote For White Up	10	161	2020/05/30 13:22	NV	2021/08/18 13:45	NV

Figure 0—19: 004 Environmental Level Codes (Part 4 of 5) – Extract from NVIVO Software

Name	Files	References	Created on	Created by	Modified on	Modified by
001 Founder(s) Level	9	497	2020/04/04 13:42	NV	2020/04/04 13:58	NV
002 Social Innovation Level	10	846	2020/04/04 13:46	NV	2020/04/04 13:58	NV
003 Organisation Level	10	2342	2020/04/04 13:47	NV	2020/04/04 13:59	NV
004 Environmental Level	10	1039	2020/04/04 13:49	NV	2020/04/04 13:59	NV
001 Social Enterprise Definition	4	47	2019/12/18 19:00	NV	2020/04/12 13:17	NV
002 NPO Vs SE Perceptions	7	230	2019/12/17 17:09	NV	2020/04/12 13:17	NV
003 Business Model Factors	9	285	2020/04/12 12:44	NV	2020/04/12 13:18	NV
004 Funding	6	87	2019/12/18 15:32	NV	2021/07/25 11:27	NV
005 Support Structures	8	132	2019/12/17 18:35	NV	2020/04/12 13:19	NV
006 Scale Partners	9	92	2019/11/24 23:17	NV	2020/04/12 13:20	NV
007 Ecosystem + Community	6	80	2020/04/12 22:23	NV	2020/04/12 22:56	NV
008 Digital Infrastructure	8	52	2019/11/24 19:29	NV	2020/04/12 13:22	NV
001 Digital Connection Drive	4	24	2019/11/24 19:29	NV	2020/04/12 22:20	NV
002 Develop Own Infrastructure	6	21	2019/12/08 00:04	NV	2020/04/12 22:51	NV
003 Policies	1	6	2020/04/13 01:32	NV	2020/04/13 01:33	NV
009 Skills and Knowledge	7	25	2019/11/24 09:04	NV	2020/04/12 13:22	NV
001 Need Specialized Skills	5	14	2019/11/24 09:04	NV	2020/04/12 22:21	NV
002 Scarcity of suitably qualified	2	5	2019/11/24 09:15	NV	2020/04/12 22:21	NV
010 Race Factors	1	9	2020/04/04 19:04	NV	2020/04/12 13:22	NV
005 Tech Scaling Factors	9	365	2020/01/01 16:18	NV	2020/04/05 14:51	NV
010 Quote For White Up	10	161	2020/05/30 13:22	NV	2021/08/18 13:45	NV

Figure 0—20: 004 Environmental Level Codes (Part 5 of 5) – Extract from NVIVO Software

Name	Files	References	Created on	Created by	Modified on	Modified by
001 Founder(s) Level	9	497	2020/04/04 13:42	NV	2020/04/04 13:58	NV
002 Social Innovation Level	10	846	2020/04/04 13:46	NV	2020/04/04 13:58	NV
003 Organisation Level	10	2342	2020/04/04 13:47	NV	2020/04/04 13:59	NV
004 Environmental Level	10	1039	2020/04/04 13:49	NV	2020/04/04 13:59	NV
005 Tech Scaling Factors	9	365	2020/01/01 16:18	NV	2020/04/05 14:51	NV
001 Digital Tech Perception	4	66	2020/01/04 13:58	NV	2020/04/12 23:14	NV
002 Increase Options	8	53	2020/01/01 16:52	NV	2020/04/06 15:14	NV
003 Efficiency + Flexibility	5	46	2020/01/01 16:21	NV	2020/04/06 15:14	NV
004 Human Tech Interplay	6	40	2020/01/01 16:27	NV	2020/04/06 15:14	NV
005 Virality + Replicability	6	39	2020/01/01 16:18	NV	2020/04/06 15:16	NV
006 Willingness To Embrace	4	33	2020/01/05 17:08	NV	2020/04/06 15:18	NV
007 Degree Of Digital Innovation	6	31	2019/12/08 08:47	NV	2020/04/06 15:19	NV
008 Execution Differentiation	6	24	2020/01/01 16:31	NV	2020/04/06 15:19	NV
009 Changes in Tech	3	17	2020/01/04 12:44	NV	2020/04/06 15:19	NV
010 Social Impact of Tech	2	16	2020/01/01 16:39	NV	2020/04/06 15:19	NV
010 Quote For Write Up	10	161	2020/05/30 13:22	NV	2021/08/18 13:45	NV

Figure 0—21: 005 Digital Technology Codes – Extract from NVIVO Software