Organisational learning capability and social innovation: 
A study of hybrid social enterprises in South Africa

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

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ABSTRACT

The research was prepared based on a study of South African non-profit organisations that are engaging in the journey of applying a social business model to their operation, to deliver social innovation in a dynamic and unstable environment. Therefore, the study investigates the internal factors enhancing the potential of non-profit organisations to be innovative and deliver entrepreneurial social solutions. According to previous studies in the context of small and medium enterprises, those factors define the learning capability of an organisation, exerting a positive effect on its competitiveness and success. This research aimed to explore whether the same factors have a positive effect on the capability of non-profit organisations to deliver increased social innovation successfully.

The descriptive quantitative study was conducted among managers and staff of South African non-profit organisations delivering their programs across the country. The data were collected through a survey distributed virtually, thereafter analysed via multiple regression. New measurement scales for organisational learning capability and social innovation were empirically developed for the analysis of the data.

The results of the analysis provided support for only two of the five hypotheses theoretically developed, whereby the organisational dialogue and participative decision-making practices would enhance the capability of the organisation to deliver social innovation. On the contrary, the findings suggested that non-profit organisations in South Africa generate increased social innovation when they manage risk, instead of taking risk. Furthermore, the proposition for a positive relationship between knowledge conversion and social innovation was confirmed.

The findings highlighted the importance for non-profit organisations to evolve their learning capability to enhance social innovation; the results obtained pave the way for future research to further investigate the factors unfolding social innovation.
DECLARATION

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

Elena Gaffurini,

Signed at Johannesburg

On the ..... day of February 2015.
DEDICATION

To my family, who sparked my passion for knowledge and the sense of urgency to contribute to solving social issues. For empowering me to be a global citizen and a positive change-maker.

To my fiancé, who inspires me to believe that everything is possible.
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Completing this research study has been a humbling experience, which contributed significantly to my personal growth and inspired important decisions on my career plan. For this, I would like to acknowledge and thank the most important people who assisted and supported me throughout this challenging process.

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CHAPTER 1. INTRODUCTION

1.1 In search of a unifying paradigm for social innovation

The epistemology of this research evolved from institutional entrepreneurship, sourcing a range of disciplines, from political science and economics to human geography and sociology. These theories assume that, under crisis conditions, institutional entrepreneurs can dissociate themselves from the existing contexts that they are embedded in (Beckert, 1999), change existing institutions or create new ones (Leca & Naccache, 2006) without disconnecting from the social world. The literature on institutional entrepreneurship (Pacheco, York, Dean & Sarasathy, 2010) provided a link between the view of entrepreneurs as actors, developing innovation in the society, and the theories of institutional innovation (Hargrave & van de Ven, 2006, as cited in Lautermann, 2013), concerned with the process of creating and changing social institutions. Furthermore, this research is aligned with studies on social entrepreneurship (SE) informed by the virtues-based theory of entrepreneurship, beyond the classical capitalist paradigm (Lautermann, 2013).

The study incorporates elements of Gidden’s structuration theory (Bryant & Jary, 1991), according to which structures contemporaneously constrain and enable individuals. It adopts a meta-theory of structure and agency, built upon Shane and Venkataraman’s (2000) theory of entrepreneurship, according to which the entrepreneur is alert to opportunities, which are created externally in the environment. This interpretation allows analysis of the social reality through the lenses of the interplay between the individual actors shaping the reality and the environment and context where they act (Sarason, Dean & Dillard, 2006).

SE is understood as a cluster concept (Choi & Majumdar, 2014) that represents the combined quality of its sub-concepts, namely social value creation, the social entrepreneur, the social enterprise, market orientation and social innovation (Nicholls & Cho, 2006). Shane and Venkataraman’s (2000) theory of entrepreneurship studies those individuals who create highly innovative
enterprises, delivering new products and services, and adopting novel organising methods.

The methodological implications of this approach would favour qualitative studies, based upon longitudinal investigations that seek to understand the uniqueness of each opportunity under study (Sarason, Dean & Dillard, 2006). Nevertheless, this research is based upon a more realistic ontology, trying to predict and explain organisational factors (Chiva & Alegre, 2009) that can foster the organisational capacity to enhance social innovation. Building on previous literature on institutional theories (Urbano, Toledano & Soriano, 2010), the construct of social innovation is understood as a process that evolves in a social context because of the proactive intervention of an actor, the social entrepreneur (Cajaiba-Santana, 2014; de Mendiguren Castresana, 2013).

1.2 Hybridisation of non-profit organisations in South Africa

The study focused on entrepreneurial non-profit ventures serving a social mission while generating earned incomes, independent from subsidies and grants, as proposed by the social enterprise school of thought (Hoogendoorn & Pennings, 2010). Chuma, representing the United Nation Development Policy (UNDP), claimed that a new private sector addressing the needs of the poor is developing in the African continent, and it holds the potential to offer goods and services, generate employment and foster income generation (UNDP, 2010, as cited in deMendiguren & Castresana, 2013). In the past years, the UNDP has published several reports providing support for the need of collaboration among organisations belonging to the private and non-profit sector; for them to enter into new partnerships for development (UNDP, 2008; 2010).

Currently, in the era of globalisation, several developing countries are faced with the challenge of striking a balance between providing their citizens with access to basic human rights, and sustaining the finances of the state. SE discourses are gaining traction among countries belonging to the Organisation for Economic Cooperation and Development (OECD), where this approach has driven social cohesion by reducing inequalities, and established a productive economic sector.
For example, the United Kingdom’s social enterprises sector has been growing faster than the national economy, via continuous innovation on the delivery of their products and services (Greater Capital, 2014). In this context, a growing interest is placed on the ‘social economy’, an innovative way of looking at incorporating economic activities into solutions for social needs and involving disadvantaged communities in the process of producing and consuming goods carrying social value (Amin, 2009). Amin (2009) is particularly concerned with developing economies and identifies this perspective as a possible post-capitalist alternative. The social economy could pave the way to a more sustainable and fair society, built on the basis of satisfying local needs, as a reaction to the interventions that destroyed indigenous lifestyle and local communities over the past century.

Furthermore, government service delivery is often criticised for being ineffective, wasteful, sometime corrupted and overall antithetical to innovation and creativity for problem solving (Littlewood & Holt, 2013). In light of these considerations, economists North and Thomas (1970, as cited in Dees, 2007), proposed that it would be more economically efficient to diversify the risk of failing social initiatives by activating several social enterprises to deliver welfare services, therefore increasing the probability of learning from limited failure and succeeding at a systemic level. The Nobel Peace Prize, awarded to Professor Yunus in 2006 (Yunus, 2006), created legitimacy around the ideal of charging poor people for goods and services that provide solutions to their social needs and increase their living standards (Larsen, 2014).

From an academic perspective, Dees (2007) suggested that, given their private nature, social enterprises might operate across borders, capitalising on a more efficient use of resources compared with government’s direct intervention. This proposal was supported in literature, whereby other authors argued that non-profit organisations (NPOs) should adopt an entrepreneurial posture for their operations (Weerawardena & Mort, 2001) and implement innovative practices to capture competitive advantage (Jaskyte, 2004; McDonald, 2007). Others suggested adopting market orientation to meet the increased competition
(Nicholls & Cho, 2006). However, support for the proposed marketisation of non-profit enterprises did not find unanimous support. Eikenberry and Kluver (2004) firmly criticised it, as it may become a threat to civil society. Therefore, in this contested sphere, hybrid organisations could become the compromise solution to these issues, while holding the capability of social enterprises to operate across borders and boundaries.

Moreover, additional clarity is needed on the sphere of social innovation, since several publications developed their analyses through case studies (Mulgan, 2006; Mulgan, Tucker, Ali & Sanders, 2007; Mumford & Moertl, 2003). Nicholls (2010) suggested that it is typical of a field that does not yet have a clear epistemology of public data sets and research focuses on repeated practical examples or develops theoretical work without presenting empirical support. This research was conducted in South Africa, where SE remains under researched, despite its importance as a phenomenon of social life (Urban, 2008).

Inspired theorists of SE are inclined to attribute to this sector a crucial role to redress economic inefficiencies and disparities. Professor Yunus (2007) proposed that social business could be the motivator for disillusioned young people to seek the creation of innovative solutions for the world, as well as become a provider of employment opportunities for many more.

The latest statistics on employment in South Africa reported that the official unemployment rate in the country increased by three percent, compared with 1994, reaching 25 percent of the total population, while the expanded unemployment rate remained stable at 35 percentage points (STATS SA, 2014). However, according to the national and provincial market trends, the highest long-term unemployment rate is recorded among the youth. In 2014 almost two-thirds of young people in South Africa were unemployed for more than one year, and they accounted for 90 percent of the unemployed population who had never worked before. Political leaders and research institutes agree that the causes of this challenge are rooted in the history of the country and in its economic structure (STATS SA, 2014). In the attempt to build sustainable solutions to this challenge, Black Economic Empowerment (BEE) policies and institutional
initiatives increasingly focused on fostering the creation of enterprises, as the vehicle to drive economic growth and job creation. Nevertheless, the Global Entrepreneurship Monitor (GEM) (Herrington & Kew, 2014) reported that the Total Entrepreneurial Activity (TEA) rate in South Africa was 10 percent, which is consistently and significantly below the average of other efficiency driven economies that averaged 16 percent. The special issue of the report focusing on the study of total social entrepreneurial activity found that South Africa scored 2.3 percent, which was below the average of 3.2 percent recorded across the continent (Terjesen, Lepoutre, Justo & Bosma, 2012).

Emerging research suggests that there is a qualitative difference between working in the mainstream economy and the social sector, as they require a different set of values, motivation, expectations and skills (Amin, 2009). Reports on short-term placement in England, provided qualified support for the view that social economy could be a provider of career opportunities to ambitious graduates, qualified employees and social entrepreneurs, whereas it could be a valuable temporary solution for volunteers and low-skilled workers (Amin, 2009).

South Africa created and launched specific policies to foster innovation that yields direct positive social outcomes aiming at redressing poverty of marginalised members of the society (Hart, Jacobs, Ramoroka, Manggakaza, Mhula, Ngwenya & Letty, 2014). However, no clear strategy focuses on supporting the development of organisational capability of the entities involved in creating and delivering on social innovation, which is due to a generally poor understanding of the dynamics of innovation. According to Hynes (2009), there is a need to adapt the initiatives that are currently focused on providing financial and non-financial support to small and medium social enterprises. Policy makers in particular should improve access to finance (Stuart, 2013), by bridging possible language barriers and revisiting the evaluation criteria applied by funding entities. Moreover, developing a network for inter-sectorial collaboration and partnership as well as revised impact assessment criteria would greatly contribute towards the facilitation of their survival and enhance their growth.
(Hynes, 2009), thus contributing to creating employment opportunities (Greater Capital, 2014).

This research tried to merge organisational and innovation studies, inspired by the Innovation School (Hoogendoorn & Pennings, 2010), in an attempt to identify the internal factors that can foster the creation of innovation with a social purpose.

1.3 Identifying the problem and the research question

1.3.1 The main problem

The current NPO sector in South Africa is characterised by organisations configured to have solid partnerships with the corporate and public sectors (Stuart, 2013). Therefore, the majority of these NPOs rely on external funding, particularly in the form of social-welfare spending (Greater Capital, 2014). However, almost half of the operating NPO reported to have suffered funding cuts (Greater Capital, 2013). This followed the budget reviews undergone by government departments, in need of rebalancing past inefficient allocation of resources. From a private sector perspective, the effects of the global financial crisis and the national recession forced heavy reduction on corporate social investment spend (Stuart 2013). Consequently, several NPOs faced the need to retrench personnel while cutting part of the social service provided to their beneficiaries.

The entities involved in the Greater Capital (2013) study, reported the need to relook their own business model to adopt hybrid approaches to market part of their services. This approach envisions NPOs gradual attainment of financial sustainability via internally generated revenues (Greater Capital, 2014). Members of the NPO community, researchers and policy makers agree on the potential of these organisations to adopt customer-oriented and business-like entrepreneurial approaches to tackling the problems of vulnerable communities. However, this internal change requires the organisation to be capable of learning
to adapt to a dynamic and increasingly competitive environment, while maintaining its capability to enhance social innovation and deliver social value (Chalmers & Balan-Vnuk, 2013; Choi, 2012). Thus, NPOs should evaluate the characteristics of their staff and their organisational culture carefully to inform strategies aimed at shaping the entrepreneurial posture of the organisation and a customer-oriented approach (Greater Capital, 2014).

The multi-sectorial field where NPOs operate, the multi-stakeholder approach that they adopt (Tandon, 2014) and the social implications of their programs (Dey & Steyaert, 2010) require that this shift should not be driven by a one-size-fits-all approach. Thus, new entrepreneurial initiatives and new job opportunities could be generated (Greater Capital, 2014), which would fill the current gaps. However, organisations should be ready and aware of the implications of this move towards hybridising their business model. This, in turn, would positively affect their staff, their financial sustainability and the vulnerable communities that they address.

1.3.2 Research question

Drawing from the theoretical analysis and the contextual conditions mentioned above, the empirical findings of this research focused on the main research question:

What is the relationship between factors of organisational learning capability and the social innovation of hybrid social enterprises in South Africa?

1.4 The significance of the study

If there is a consensus around the positive contribution of social enterprises towards economic and societal development, it is necessary to have a full and in-depth understanding of the patterns of firm growth as well as the challenges that those organisations encounter (Hynes, 2009).
In line with Penrose’s theory of the firm, suggested by Uygur and Marcoux (2013), firms are created to facilitate the achievement of an end, their organisation should fit the end they aim at achieving. Therefore, the purpose of this study was to analyse the relationship between the capability of organisational learning and social innovation of hybrid South African NPOs, for them to fulfil their vision. Therefore, the research investigated factors that could have enhanced or hindered the capacity of the NPO to adopt entrepreneurial innovative solutions to generate social innovation.

Camps and Maiocchi (2010) argued that there is a positive relationship between organisational learning capability and employability. In fact, employees working in organisations with a strong learning culture would develop the required self-confidence to believe that they own the skills required to find a job when needed or to identify opportunities to create one. Supporting this study, organisations with high organisational learning capability hold great potential to foster social innovation, particularly in a context such as South Africa, which is strongly affected by high unemployment and large skill gaps.

Furthermore, this research could extend into the broader African continent, incorporating the range of application of the organisational learning capability measurement instrument (Chiva, Alegre & Lapiedra, 2007). The scale was developed in a blue collar setting in Europe and tested for the knowledge intensive service industry (Camps, Alegre & Torres, 2011) in South America.

1.5 Defining the constructs

In South Africa, social entrepreneurs are often social change agents, involved with creating innovative social solutions to social problems, not necessarily individuals running enterprises. Despite the lack of an official definition of social enterprise in South Africa, the definition adopted by the International Labour Organisation (ILO) would be applicable to this context. Accordingly, social enterprises are identified as business organisations with primarily social objectives, whose surpluses are principally reinvested for that purpose in the business or community, rather than being driven by the need to maximise profit
for shareholders and owners (Department of Business, Innovation and Skills, 2011, as cited in the Greater Capital, 2014). Thus, social enterprises adopt a financially viable business model and have an internal mechanism that ensures transparency and accountability towards its stakeholders (Fury, 2010).

Social enterprises comply with the new Companies Act No 71 of 2008 (RSA, 2008), effective since May 2011. The Companies Act simplified the legislation, enhancing consistency and efficiency in business incorporation processes. It differentiates between profit and non-profit companies (NPC), requesting the latter to add NPC whenever they register. However, the broad definition for a NPO was published in the Social Development Act of 1997 as “a trust, a company or other association of persons established for a public purpose and the income and property of which are not distributable to its members or office bearers except as reasonable compensation for services rendered” (RSA, 1997, p. 40).

Organisational learning capability (OLC) is a bundle of intangible and tangible skills and resources used by the venture to achieve or maintain its competitive advantage (Chiva & Alegre, 2008). OLC emphasises the process facilitating organisational learning and applied to modify internal mental models, rules, procedures or knowledge, to sustain or improve performances (Chiva & Alegre, 2009). It provides an indication of the potential to innovate and to grow (Jerez-Gómez, Céspedes-Lorente & Valle-Cabrera, 2005). The term is used primarily in the field of strategic planning, cultural systems and knowledge management, to study the organisational approach to the internal and external data available to be converted into information and knowledge for the organisation itself (Goh, 1998, as cited in Camps & Maiocchi, 2010).

Social innovation is the exploitation of any new ideas aimed at developing products, services or methods that offer improved solutions to un-satisfied social needs (Innobarque, 2013) and hold the potential to improve either the quantity or the quality of life (Nussbaum & Sen, 1993; Pol & Ville, 2009). These products or services are spread primarily through social purpose organisations (Mulgan, et al., 2007).
Hybrid social enterprise defines organisations that produce social value and commercial revenues (Bugg-Levine & Emerson, 2011).

1.6 Assumptions

With regard to a study of social innovation, this analysis was based upon three premises (Innobasque, 2013):

[1] Social Innovation could be produced and disseminated by a plurality of agency and not by the social entrepreneur alone.

[2] The connection to social realities gives social innovation a high local connotation, which justifies regional studies instead of generalisation on the matter.

[3] Social innovation is the result of the absorptive capacity of an organisation and its social capacity to enact solutions as outcome of the process.

This research considered processes of social innovation strongly connected to the local issues and demands that they seek to solve (Innobasque, 2013). In light of the complexity of SE studies and the innovation phenomenon, and given the inconsistency of results obtained in studies on innovation, it is appropriate to adopt a cultural perspective to studies seeking to understand innovation (Robert, Watson & Oliver, 1989, as cited in Jaskyte & Dressler, 2005).

Therefore, this research assumed a regional perspective of social innovation (Karanda & Toledano, 2012) in the context of South African NPOs. An index to measure organisational capability for social innovation, developed in Spain, aimed to evaluate potential differences and similarities in the results obtained from the study.

The scope of the study extended to hybrid social enterprises in South Africa, legally operating as NPOs. It was out of the scope of this research to investigate
the variety of organisations that could potentially suit the definition of hybrid social enterprise proposed but operate within a different legal framework.

1.7 Contribution of the study

With their bibliometric research analysis, Granados, Hlupic, Coakes and Mohamed (2011) found that the majority of studies on SE were developed in Europe and the US, with a limited contribution brought by international collaborations from Latin America, South Africa and South-East Asia. However, the construct has different meanings when studied in areas with different levels of development (Mair & Marti, 2006; Urban, 2008). This study aimed to further clarify the significance of the SE construct in the African developing context.

Furthermore, the body of literature is still predominantly theoretical and descriptive, developed on case studies, whereas only a limited number of papers are predictive in nature (Granados, et al., 2011). Therefore, more quantitative studies are needed to move the field from theory building to theory validation. In fact, research conducted on empirical reality allows the development of valid theories that can repeatedly be tested (Eisenhardt, 1989), which is a prerequisite for the evolution of any research field. (Hoogendoorn, Pennings & Thurik, 2011)

The study aimed to contribute to the body of knowledge of social entrepreneurs, practitioners and NPO managers to identify internal factors that may influence or hinder the capacity of an organisation to adopt entrepreneurial solutions while generating social innovation.
CHAPTER 2. LITERATURE REVIEW

This chapter presents the background of the study, sourcing from evidence-based analysis and peer-reviewed literature the context dependent nature of social entrepreneurial studies. Thereafter, the report focuses on presenting the characteristics of hybrid organisations and the implications of such a business model on influencing the capacity of the social venture to enact social solutions. Thereafter, the constructs of organisational learning and organisational learning capability are examined, to present hypotheses that relate each construct to social innovation.

2.1 Social entrepreneurship (SE)

2.1.1 In search of a definition for SE

SE is a field that is still in its infancy (Bacq & Janssen, 2011; Dees & Anderson, 2006), therefore, SE studies suffer from the lack of commonly accepted definitions. Furthermore, the contested nature of the construct makes it almost impossible to derive a universally accepted definition (Choi & Majumdar, 2014). According to the analysis based upon Gallie’s (1956, as cited in Choi & Majumdar, 2014) theory of essential contestedness, the construct of SE would comprise five components, namely social value creation, the social entrepreneur, the social enterprise, market orientation and social innovation.

Some authors focused on the non-profit perspective, defining SE as the process of fostering marketing and business skills development to enable charitable organisations to run their activities without depending on donations and grants; but rather generating income through commercialising products and services (Weerawardena & Mort, 2006). According to Nicholls (2006), one of the most cited authors in the field (Granados et al., 2011), the construct of SE is an umbrella term that incorporates a considerable scope of discourses and practices in the social, economic and environmental arena at a local, national and global level.
Dees (1998) set the very first comprehensive definition of a social entrepreneur, combining elements of Say’s notion of value creation, the Schumpeterian concept of innovation, Drucker’s pursuit of opportunity and the concept of resourcefulness presented by Stevenson. Therefore, the social entrepreneur would be the individual who "plays the role of change agent in the social sector, by:

- Adopting a mission to create and sustain social, not only private, value;
- Recognising and relentlessly pursuing new opportunities to serve that mission;
- Engaging in a process of continuous innovation, adaptation and learning;
- Acting boldly without being limited by resources currently in hand; and
- Exhibiting heightened accountability to the constituencies served and for the outcomes created" (Dees, 1998, p. 4).

Summarising Dees’ (1998) view, Nicholls and Young (2008) proposed to define SE through its constituents, namely a strategic focus on generating social impact and an innovative approach to achieving the organisational mission.

Subsequently, a further definition was forged, accounting for the systemic wealth creation (Zahra, Gedajlovic, Neubaum & Shulman, 2009) of tangible and intangible outcomes. Particularly, the authors suggested that the total wealth could be evaluated applying the formula:

\[
\text{Total Wealth (TW)} = \text{Economic Wealth (EW)} + \text{Social Wealth (SW)}
\]

\[
\text{Economic Wealth (EW)} = \frac{\text{Economic Value}}{\text{[Economic Cost (EC) * Opportunity Cost (OC)]}}
\]

\[
\text{Social Wealth} = \frac{\text{Social Value (SV)}}{\text{Social Costs (SC)}}
\]
According to Zahra et al. (2009), social entrepreneurs could be classified in three different categories, as summarised in Table 1. The social engineers would be able to recognise and address systemic problems embedded in existing social structures. Thereafter, they could provide revolutionary social innovations by deconstructing problems of society and reconstructing them into solutions, as it was proposed in Schumpeter’s (1942, as cited in Lettice & Parekh 2010) concept of creative destruction. The social constructionists would fill the gaps in the market to underserved potential customers by introducing innovation at a systemic level (Lettice & Parekh, 2010). Lastly, the social bricoleurs would be developers of solutions to small social local needs to which they are exposed first-hand. In conclusion, this field concerns individuals or organisations engaged in entrepreneurial activities with a social goal (Herrington & Kew, 2014; Hoogendoorn & Hartog, 2011; Smith & Stevens, 2010).

**Table 1: Typology of social entrepreneurs**

(Zahra et al., 2009; Volkmann, Tokarski & Ernst, 2012)

<table>
<thead>
<tr>
<th>Type</th>
<th>Social Bricoleurs</th>
<th>Social Constructionists</th>
<th>Social Engineers</th>
</tr>
</thead>
<tbody>
<tr>
<td>Theory</td>
<td>Hayek</td>
<td>Kirzner</td>
<td>Schumpeter</td>
</tr>
<tr>
<td>Activity</td>
<td>They are resourceful and motivated to identify opportunities for addressing local social needs.</td>
<td>They build and activate structures alternative to government, institutions and businesses in order to provide goods and services that address societal needs.</td>
<td>They create and implement new social systems, replacing the existing ones when these do not effectively address social needs.</td>
</tr>
<tr>
<td>Scale, Scope and Timing</td>
<td>Small scale, Local scope, Episodic intervention.</td>
<td>Small to large scale, local to international in scope, Designed to be institutionalised to address an on-going social need.</td>
<td>Broad scale, National and international scope, Aim to build lasting structures and challenge the status quo.</td>
</tr>
<tr>
<td>Why are they necessary?</td>
<td>They are knowledgeable about social needs; they have the ability to address. They embody the needed local agents who can discern, detect and address.</td>
<td>Governmental and business organisations are constrained to effectively address many social issues due to length of bureaucratic processes, political discussions and inefficiencies.</td>
<td>They address social needs that require deep, sometimes revolutionary, changes in society and to its dominant logics.</td>
</tr>
<tr>
<td>Type</td>
<td>Social Bricoleurs</td>
<td>Social Constructionists</td>
<td>Social Engineers</td>
</tr>
<tr>
<td>------------------------</td>
<td>-----------------------------------------------------------------------------------</td>
<td>-----------------------------------------------------------------------------------------------------------</td>
<td>----------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Social Significance</td>
<td>Their collective actions contribute to maintain harmony in a challenged society.</td>
<td>They contribute to maintain social order and address social needs within existing institutional frameworks.</td>
<td>They seek to replace existing structures with new ones, by promoting change in the face of entrenched incumbents.</td>
</tr>
<tr>
<td>Effect on Social Equilibrium</td>
<td>The action of the social entrepreneur moves the society closer to equilibrium.</td>
<td>They create new equilibrium by filling existing gaps through the provisions of social goods and services.</td>
<td>They seek to replace fractured social equilibrium with more efficient ones.</td>
</tr>
<tr>
<td>Source of Discretion</td>
<td>Small scale and local scope of their action requires them to access limited resources and allows for a quick response time.</td>
<td>By addressing market and social gaps, they do not have competitors. They are often welcome, hence avoiding negative publicity that may affect existing organisations.</td>
<td>They receive popular support as much as they show the ability to address important social needs that existing institutions cannot solve.</td>
</tr>
<tr>
<td>Limits to Discretion</td>
<td>They only need to abide to local laws and regulations. However, the high focus on local issues limits their capacity to extend the reach of their interventions.</td>
<td>They need to acquire financial means and professionally skilled volunteers and employees to operate the organisation.</td>
<td>They may be ostracised by existing parties, as they are perceived as a threat to the status quo. This inhibits the scope of their potential supporters and providers of funding and human capital.</td>
</tr>
</tbody>
</table>

2.1.2 The controversies of the field

SE is an interdisciplinary field derived from the intersection of economics, political sciences, anthropology, sociology and psychology (Dacin, Dacin & Tracey, 2011). The vast range of stakeholders involved, holding resources and interests, seeks for a definition of the field that should reflect their perspectives (Dart, 2004; Dey & Steyaert, 2010; Huybrecht & Nicholls, 2012; Nicholls, 2010). A relevant number of published studies focused on the operationalisation of the entrepreneurial aspects of the social venture (Dees, 1998; Leadbeater, 2007; Nicholls, 2006). However, Dart (2004) provided a definition that documents the controversies characterising the field, by suggesting that social enterprises blur the boundaries between non-profit and profit.

This academic field started evolving from its pre-paradigmatic state to find its own legitimacy (Nicholls, 2010), but several definitions were created in order to
satisfy business, civil society and government. Researchers have been investigating the trade-off constraining entrepreneurs, who need to build legitimacy for their venture, while operating across sectors in search for a balance of different institutional logics (Mair & Marti, 2006; 2009; Nicholls, 2010). Social entrepreneurs aim at producing financial returns to ensure continuity, sustainability and growth of their enterprise while promoting social change and community uplift.

The ambiguities of the field arise from its own definition. The term social, in itself, carries a dual meaning (Dacin et al., 2011). The first meaning relates to the organisation, as it refers to the nature of its mission, which is to positively affect societal change. The second meaning refers to the interpersonal behaviour of the entrepreneur, who shares knowledge and fosters the growth of his organisation by sharing and celebrating stories of success.

Moving beyond purely the economic dimension, Dacin et al. (2011) proposed that studies on SE should include aspects of cultural, civic and ecological discourse; as well as multiple stakeholders and actors. Lauterman (2013) criticised the discourse on the ethical meaning of social, as it often follows the neo-classical economic paradigm, resulting in insensitivities to local, cultural and historical specificities. This, in turn, would result in an individualistic orientation and excessive focus on the managerial aspects of solving societal challenges (Hjorth & Bjerke, 2006, as cited in Lauterman, 2013). In fact, SE literature seems to attribute an autonomous force to its social component, that seems to be expected to self-adjust as long as the economic elements of the enterprise are functioning well together (Edwards, 2008).

Expanding on the analysis of the social component of the definition, UK based authors tried to conceptualise the transformation of capital (physical, economic, human, intellectual, social and ethical) and identify it as the drive for change. Bull, Ridley-Duff, Foster and Seanor (2010) explored the ethical capital, which they define as the mobilisation of moral values, and proposed that the majority of the individuals engaged and working in social enterprises are motivated by the ideal to contribute to generating social and community benefit (Amin, 2009).
Therefore, any business creating employment opportunities in areas characterised by high rates of unemployment, via means of combining resources in innovative ways, maybe considered a social enterprise (Pirson, 2012). Moreover, Elkington and Hartigan (2008) proposed that the mission of a business should be the defining factor to determine its nature of social enterprise. Therefore, they suggest that even a multinational IT company such as Google should fall into this category, since it pursues the social mission of making the world’s information available.

Emerging studies are focusing on the role of virtual communities and networks as support systems and enablers of growth for social enterprises, building on theories of social capital (Oh, Labianca & Chungl, 2006; Shaw & Carter, 2007). The primary definition of social capital relates to the involvement of people in their community or in their geographic surroundings (Pearce, 2003; Bull et al., 2010). In this instance, building social capital indicates the personal commitment to nurture the development of social networks based on values (Westfall, 2001, as cited in Bull et al., 2010) and equity (Drayton, 2006). Therefore, social capital becomes an intrinsic goal of social enterprises (Amin, Cameron & Hudson, 2002) and requires to be built upon trust and a co-operative approach (Bull et al., 2010).

Other authors explained the importance of the spatial dimension in the SE discourse, proposing to differentiate the construct in discursive, social and geographical space (Steyaert & Katz, 2004, as cited in Bacq & Jannsen, 2011). There are several successful examples of born global social innovations, such as micro-finance. However, the social mission of these enterprises often requires the organisation to aim to be contextually embedded (Karanda & Toledano, 2012). It is therefore relevant that academic research applies a cultural approach to the study of the field, which includes a focus on the narratives and rituals that may support the development and deployment of social value to a specific community (Dacin et al., 2011).
2.1.3 **Historical excursus at the origins of the field**

To create definitions and boundaries for terms requires an understanding of the narratives as well as the unconscious meanings that different cultures associate with specific words (Dey & Steyaert, 2010; Toledano, 2011). Therefore, a brief historical overview of the origins of SE is provided, to contextualise the available definitions of constructs found in literature (Abbott, 1993), despite the limited conceptual sources available from developing countries.

For many centuries, European countries used to address their main social issues through charitable initiatives of wealth redistribution, which were often directed by the church (Dees, 2007). The Latin *caritas*, at the origin of the noun charity, was an expression for compassion for others. In this spirit, the givers were demonstrating their virtue, without concern for the limited short-term effect of their action, which created dependency and justified undermining of the poor (Yunus, 2006). In the 18th century, in the spirit of enlightenment, Paine and Condorcet (Dees 2007), proposed that poverty could have had alternative solutions to charity. During this era, governments had been identified as repositories of the responsibilities to tackle social problems that were not solved through economic development. In the following three centuries, the advent of communism and the growth of the welfare state (Wilensky, 1975, as cited in Hoogendoorn & Hartog, 2011), undoubtedly contributed to create large-scale solutions to some of the major societal issues.

In the 20th century, social enterprises evolved into the variety of organisational forms under which they are operating today. In the US, social ventures started operating as part of an initiative to create jobs for disadvantaged groups. The provision of non-profit commercial activities was the solution of choice to respond to the cutbacks in government funding (Eikenberry & Kluver, 2004; Kerlin, 2006).

US President, Franklin D. Roosevelt, set the basis to the modern welfare state. However, despite the provision of access to healthcare and education, a top-down government-led approach proved to be insufficient. Furthermore, these systems are largely based upon principles of redistribution, which is more
effective in societies where the Gini index of inequality is rather limited (Dees, 2007). Limited empirical findings supported this failure (Hoogendoorn & Hartog, 2011). However, the main researchers of SE adopted the belief that inefficiencies and weak functioning of government or market may influence the presence of SE initiatives in a society (Mair & Marti, 2009; Nicholls, 2006; Nyssens, 2006; Zahra et al., 2009).

2.1.4 The development of SE in academia

In 1972, Banks was the first to note that social problems may be addressed through managerial practices (Nicholls, 2006).

A decade later, commenting on Schumpeter’s concept of innovation, Young (1983, as cited in Bacq and Janssen, 2011, p. 375), referred to “the innovative non-profit entrepreneur”. Afterwards, the concept of SE emerged from the work of Bill Drayton (2006) at Ashoka (2012) in the late 1980s (Bornstein, 2007; Dees, 2007). Nevertheless, according to Short, Moss and Lumpkin (2009), Waddock and Post (1991) coined the term ‘social entrepreneur’ to describe private sector individuals acting as catalysts for change by shaping processes for public policies. The field evolved in stages. First, it moved from public policy to examine the non-profit sector (Dees, 1998), thereafter it included for-profit organisations delivering public welfare services (Kanter & Purrington, 1998, as cited in Teasdale, 2011) followed by a mixture of the two (Anderson, Dana & Dana, 2006).

The first legal solution, provided for organisations addressing this need, was established in Italy with the Law 381 of 1991 (Kerlin, 2006), which established the category of social cooperatives. Defourny and Nyssens (2006) proposed that the emergence of community enterprises and cooperative forms of social enterprise was the answer to the dual market and state crisis that has been affecting continental Europe in the past 20 years (Teasdale, 2011). Since the end of the 1990s the concept of SE achieved policy recognition in several western countries (Bacq & Janssen, 2011), with the UK leading the way (Nicholls, 2010). Thereafter, the sector has gained momentum in the academic
as well as practitioners field (Toledano, 2011), receiving public visibility when the Nobel Peace Prize was awarded to the thought leader of micro-finance practices and social business solutions in developing countries, Professor M. Yunus (Hoogendoorn, et al., 2011). On that occasion, for the very first time in history, global media focused their attention on an organisation that operated by offering its services to the poorest, under conditions that were really affordable to them, hence enabling them to become part of the formally structured economy (Larsen, 2014). During the award ceremony, Professor Yunus argued that

...Social business will be a new kind of business introduced in the market place with the objective of making a difference in the world. 
... A social business will be self-sustaining and create surplus for expansion since it is a non-loss enterprise (Yunus, 2006, p. 272).

During the same period, the United Nations released a report titled ‘Unleashing entrepreneurship: making business work for the poor’ (UNDP, 2004), calling for a higher involvement of the private sector in public-private partnership. These partnerships were a means to foster economic development and stability, intended to complement development aid (Dey & Steyaert, 2010), and a vehicle to drive initiatives towards achieving the Millenium Development Goals (UNDP, 2010).

The increased interest in the field is reflected in the growing number of research and teaching programs at academic level (Perrini, 2006). Additionally, numerous journals specialised in the topic (e.g. Stanford Social Innovation Review, 2003; Social Enterprise Journal, 2004; Journal of Social Entrepreneurship, 2010; Journal of Social Entrepreneurship and Innovation, 2011), special issues of journals published on the theme (e.g. International Journal of Entrepreneurial Behaviour & Research, 2008, Entrepreneurship Theory and Practice, 2010), while thought leaders and practitioners worldwide gather at annual conferences (e.g. Skoll World Forum on Social Entrepreneurship, NY-Stern Conference on Social Entrepreneurship) (Volkmann et al., 2012). The Bertha Centre for Social Innovation and Entrepreneurship at the University of Cape Town is a vivid
example of an African hub for academics and practitioners to exchange knowledge and ideas (Littlewood & Holt, 2013).

2.1.5 Schools of thought on SE

Since its inception, the evolution of the academic field mirrored socio-economic views that are context sensitive. Four different school of thoughts emerged, as presented in Table 2, the social innovation school, the American social enterprise school, the emergence of middle enterprise in Europe and the UK network (Dees & Anderson, 2006).

The social innovation school was initiated on the basis of Drayton’s (2006) principles aimed at tackling social issues or satisfying social needs through the provision of support for outstanding individuals working towards establishing new social solutions. The American social enterprise approach is more concerned with income generation while conducting a social mission, a view that applies to Porter and Kramer's (2006) idea of corporate shared value.

The formal definition of European social enterprises provided by the OECD legitimised the category. Nevertheless, every country is producing its own legal definition, to embed social enterprises in the national business environment and legislation (Defourny & Nyssens, 2006). These serve to reinforce the relevance of context, environment and geographical space when studying and evolving the field of SE (Hoogendoorn & Pennings, 2010).
Table 2: Distinction between schools of thought on SE

(Hoogendoorn et al., 2011, p. 9)

<table>
<thead>
<tr>
<th>Distinctions</th>
<th>American Tradition</th>
<th>European Tradition</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Social Innovation School</td>
<td>Social Enterprise School</td>
</tr>
<tr>
<td>Unit of observation</td>
<td>Individual</td>
<td>Enterprise</td>
</tr>
<tr>
<td>Link mission-services</td>
<td>Direct</td>
<td>Direct / indirect</td>
</tr>
<tr>
<td>Legal Structure</td>
<td>No constraint</td>
<td>Non-profit</td>
</tr>
<tr>
<td>Innovation</td>
<td>Prerequisite</td>
<td>Not emphasised</td>
</tr>
<tr>
<td>Profit distribution</td>
<td>No constraint</td>
<td>Constraint</td>
</tr>
<tr>
<td>Earned income</td>
<td>Not emphasised</td>
<td>Prerequisite</td>
</tr>
<tr>
<td>Governance</td>
<td>Not emphasised</td>
<td>Not emphasised</td>
</tr>
</tbody>
</table>

2.2 Contextual characteristic of SE

2.2.1 Context dependent nature of SE

The complex origins of the construct suggest that different people, in different places and times may obtain different meanings and relevance for the term social entrepreneurship (Karanda & Toledano, 2012; Volkmann et al., 2012). Several initial debates focused on determining the differences of the entrepreneurial nature of such entities and of their leading individuals, compared to operations and business models of commercial ventures (Austin Stevenson & Wei-Skillern, 2006; Bacq, Hartog & Hoogendoorn, 2013; Hoogendoorn et al., 2011), as well as protecting their knowledge and intellectual property (Uygur & Marcoux, 2013). Empirical studies based on the data published in the GEM (Herrington & Kew, 2014) suggested an inverted U-shape relation between the level of income of a country and the presence of social entrepreneurial activities.
(Hoogendoorn & Hartog, 2011). Based on the welfare state theory, Hoogendoorn and Hartog (2011) proposed a positive relation between the prevalence of SE and the level of economic development.

A number of more complex implications derive from the term social (Cho, 2006; Dey & Steyaert, 2010; Nicholls & Cho, 2006). Dacin, Dacin and Matear (2010) supported the view that all entrepreneurial forms should be deemed as social, because all successful enterprises can create some social value (Mair, 2006).

### 2.2.2 SE in developing countries

As studies looked deeper into the origins of the phenomenon, it was proposed that there are different and context dependent understandings of the construct informed by historical factors, legal requirements and the institutional environment for developing social enterprises (Hoogendoorn, Zwan & Thurik, 2011).

Several disparities in the meaning of this construct were found when it is studied in different regions of a continent (de Mendiguren & Castresana, 2013), and are even more evident when analysed within regions characterised by different level of development (Urban, 2008). Defourny and Nyssens (2010) proposed the need to embed the study of SE in the local context as its distinctive meanings arise from the local arena, being influenced by political, social, cultural and economic forces (Karanda & Toledano, 2012; Newth & Woods, 2014). Furthermore, researchers should pay special attention when dealing with local communities and the vulnerability of people (Ims & Zsolani, 2014).

Research conducted in indigenous communities particularly (Overall, Tapsell & Woods, 2010) and developing countries in Africa (Martin & Novicevic, 2010; Rametse & Shah, 2013), provided evidence to support the importance of building governing mechanisms, structures and processes of a social enterprise by taking into account contextual factors. Government initiatives and the institutional environment are crucial, influence the start-up of social entrepreneurial initiatives, and support their success (Jiao, 2011).
Seelos and Mair (2005) contested that developing countries lack the provision of services for basic needs. Moreover, government and market failures would prevent the poor from being included in the market. Only in very recent times the role of a social venture has been reconsidered in terms of its ability to tackle poverty issues by capitalising on available resources (Rametse & Shah, 2013; Seelos & Mair, 2012), since this perspective on the public utility of an entrepreneur was previously ignored (Naude, 2010).

In the Southern Africa region, state institutions centralised control over the activities of social enterprises that had been released during the long democratic transition (Masendeke & Mugova, 2009). Nevertheless, the development of the SE sector across Sub-Saharan Africa is still highly influenced by international and bilateral political and economic decisions that, by directly affecting exchange and trade of natural resources and commodities, often challenge the success of social-entrepreneurial initiatives aiming at systemic societal change (Karanda & Toledano, 2012). These researchers focused their studies on the South African context as an example of a developing country to analyse the narratives of SE in terms of the characteristics of the individual who initiates the entity, the organisational factors and their social consequences. Nevertheless, further research should explore sub-regional differences in terms of context, environment and entrepreneurial process, to understand how they differ among neighbouring African countries, such as South Africa, Mozambique, Kenya or Nigeria, to name a few (Littlewood & Holt, 2013).

An alternative solution to SE is the development of bottom of the pyramid initiatives to foster social uplift (London & Hart, 2011). These would be carried out by multinational corporations, according to the model inspired by Porter and Kramer’s (2006) idea of shared value. This concept of the bottom of the pyramid was popularised by Prahalad (2004), who suggested that those companies able to tailor their products or services to the needs and requirements of low-income markets could find a fortune waiting for them at the bottom of the pyramid. This approach often enhances collaborative relations of multinational companies working in partnership with social enterprises to implement innovative
sustainable development technologies (Littlewood & Holt, 2013). Nevertheless, the bottom of the pyramid approach is highly controversial, due to its simplistic view of development process and results, by assuming the role of market forces to favour development under improved infrastructural and institutional conditions (de Mendiguren & Castresana, 2013). In order to generate social innovation it is necessary that the social enterprise intervene in the community striving towards serving a common goal and sympathise with the local culture (Ims & Zsolnai, 2014).

In this context, the individual social entrepreneur holds the characteristics of Zahra’s et al. (2009) social bricoleur, who is positioned to discover social needs and enhance social wealth by leveraging on personal resources and expertise. Generally, the entrepreneur arises from humble or poor origins and embraces a social cause to improve economic and social circumstances of their area of origins (Karanda & Toledano, 2012; Urban, 2008). This differs from the view of entrepreneurs in a developed context, who understand unmet social needs as a vast range of environmental, social and cultural issues with potential for business solutions to enact social change (Dees, Emerson & Economy, 2001; Nicholls, 2006; 2010) and implement creative solutions to complex social needs (Zahra et al., 2009). Thus, the “grand narrative” (Dey & Steyaert, 2010, p. 88) of the “heroic leader” (Nicholls, 2006, p. 20) is the entrepreneur that carries an individualised notion of social transformation, which influences the view on SE in developed countries.

2.2.3 Narratives and characteristics of social enterprises in South Africa

The South African legal framework governing non-profit organisations finds its roots in the human rights culture proclaimed by the Bill of Rights (RSA, 1996). It is therefore in the best interest of society to develop a body of knowledge that should enhance identifying the organisational factors and the managerial and entrepreneurial skills that foster successful SE practices for poverty alleviation (Urban, 2008).
According to the South African Department of Social Development (RSA, 2012), civil society is a collective term that is used to identify all NPOs, including those operating in informal sectors of the economy. The legislation is under revision, aiming for a change that should foster a self-regulatory management approach in the organisations and a new South African Non-profit Organisation Regulatory Authority (RSA, 2012).

The South African legislation does not provide a specific definition for a social enterprise, however, a first definition for this organisation was provided during the International Labour Organisation's national conference held in South Africa in October 2009. “A social enterprise’s primary objective is to address social problems through a financially sustainable business model where surpluses (if any) are mainly reinvested for that purpose” (Fury, 2010, p. 5).

The rhetoric of a social enterprise in South Africa includes the provision of services linked with education, basic health and security (Harding, 2006; Sesan, 2006; Urban, 2008). Furthermore, in the recent past, an increasing number of private co-operative initiatives took place in the sector in South Africa, particularly fostering collective and community based saving schemes (ILO, 2011). Analysing the experiences of Ashoka fellows in the country, the co-operative behaviour of the entrepreneur emerges as a key success factor to source resources and diverse capitals from several stakeholders from the private and public sector, as well as from the community (Ashoka, 2012; Hyuk, 2014).

The narratives of social benefits peculiar to the South African context highlight a set of effects that are related to the outcome of the entrepreneurial process, as the entrepreneur begins earning income, paying taxes and employing other individuals, preferably from the community (Karanda & Toledano, 2012). Therefore, the narrative on SE focuses on solving social problems through capitalising on cooperative relations among members of a community and generating small-scale social value. This would seem to contrast with the thesis proposed by Hoogendoorn and Hartog (2011), according to whom, higher levels of individualism favour SE.
2.2.4 SE at the intercept of BEE policies for corporate social investments and enterprise development

Reflecting on the legacy of the apartheid era in South Africa and the controversial role of business, substantial literature exists critically examining corporate social responsibility initiatives and the effect of Black Economic Empowerment legislation across different sectors (Littlewood & Holt, 2013). South Africa is one of the countries where several initiatives, implemented after the end of the Apartheid era, with the aim of redressing economic imbalances generated by the previous system such as, financing emerging entrepreneurs, particularly those from previously marginalised backgrounds (Brière, Tremblay & Daou, 2014). Furthermore, the orientation of government is opposed to that of the community of independent NGOs (CIA, 2014). Government supports social security and a system of social grants in the form of direct cash transfers, whereas NGOs aim to enhance a developmental social service delivery model, which is deemed a middle- to long-term solution to foster independency of the beneficiaries.

Despite the measurable social benefits generated by social enterprises through the provision of services of public utility, government used to be reluctant to engage directly with these stakeholders (Urban, 2008) showing a high degree of scepticism towards their real aims. The legislation and policies created to empower previously disadvantaged groups achieved mixed results (Littlewood & Holt, 2013). The society remains characterised by high degrees of inequalities, certified by a score of 65 on the World Bank Gini Index (2011). This index measures the extent to which the consumption expenditure among households or individuals within an economy deviates from a perfectly equal distribution. Therefore, perfect equality is represented by a zero score, while perfect inequality has an index of 100. Despite the significant decline of the levels of poverty registered in the past decade, it was estimated that 31 percent of the population is still living below the national poverty line (CIA, 2014).

The heavy burden of inequalities characterising the South African society (World Bank, 2014) could not be efficiently or effectively addressed through
governmental philanthropic initiatives that rather degenerated into global charity events (Peredo & Chrisman, 2006, as cited in Urban, 2008). These events remain detached from the real needs of local communities and not capable of engaging the communities to take ownership of the initiatives. In addition, the malfunctioning of the National Lottery Distribution Trust Fund and the National Development Agency in distributing funding according to their legislated mandate, affected the South African civil society, and the lack of data about the size and scope of the activities of this sector affects even more the ability of government to solve the issue (CAF, 2012).

In the recent past, social enterprises demonstrated their capacity to deliver tangible benefits to society, being more efficient and accountable than government institutions, more trustable than private businesses and more sustainable than NGOs (Fury, 2010). Furthermore, the peculiarity of the new South African Broad-Based Black Economic Empowerment (B-BBEE) framework let practitioners forecast a growing interest and focus on SE, as it is a potential solution to foster enterprise development while enhancing positive community development (Volkmann et al., 2012).

Nevertheless, according to the results of the survey performed by Greater Capital (2013), the majority of NPOs in South Africa were still highly dependent on public funding, corporate CSI investment and individual donations and experienced significant funding cuts in the last years. This phenomenon not only affected their operations, but also had negative repercussions over employment. In fact, 43 percent of the sampled respondents reported to have formally retrenched full time, part-time and contract workers as well as volunteers. According to the report, however, most of the surviving organisations have now shifted their focus towards new means of income generation, organisational restructuring and business model change.

Moreover, the South African legislation fostered corporate social investment, as a means to channel funds towards social development initiatives to support social enterprises, even with limited clarity of the distinction between corporate
social investments, enterprise development and their intersection (Littlewood and Holt, 2013).

### 2.3 SE process and value creation

Some of the research studies on SE chose to focus on the innovative process navigated by non-profit organisations acquiring an entrepreneurial posture (Weerawardena & Mort, 2006) and how its alignment to the organisational mission is crucial to the fulfilment of the goal (McDonald, 2007). However, Teasdale (2011) proposed a more comprehensive framework to visualise the different conceptualisations of the construct, as depicted in Figure 1.

Other authors (Mair & Marti, 2006; Urbano et al., 2010) focused their research on the process dynamics of SE, whereby the actor explores and exploits opportunities by combining resources in new and innovative ways, envisioning to addressing unmet needs and create social value.
When referring to entrepreneurial activities of social ventures, the GEM (Terjesen et al., 2012) referred to SE as a process of discovery, evaluation and pursuit of opportunities (Shane & Venkataraman, 2000) as well as of new business creation (Gartner, 1990, as cited in Hoogendoorn & Hartog, 2011).

Investigating the dynamics of social enterprise development, Guclu, Dees and Anderson (2002) depicted the process as a funnel composed of two phases, namely the generation of a promising idea and its development into an attractive opportunity. As represented in Figure 2, the first phase depends on the quest for a change to meet social needs and builds upon existing social assets, about which the entrepreneur became aware through his personal experience. Once the idea for a solution is generated, the entrepreneur focuses on developing a
viable business model coherent with his social impact theory. By doing so, he aims at efficiently combining the needed resources to sustain operations while exploiting the opportunity and delivering social impact.

![Diagram of the opportunity creation process](image)

**Figure 2: The opportunity creation process**

(Guclu et al, 2002)

### 2.3.1 Social value as outcome of SE process

According to the definition of SE (Dees, 1998; Zahra et al., 2009), the creation of social value should be the natural outcome of the SE process (Mair & Marti, 2006). MacIntyre (1994, as cited in Lautermann, 2013), suggested that social value consists of internal and external goods. Lautermann (2013) proposed this view of SE, which would lead to include in the field a vast array of innovative cases. As an example, the new practice of developing free open source software fosters the creation of internal goods, as it is a collectively developed source code, while the reputation and income derived from the activity should be classified as external goods. Moreover, the software tools made available for further practices would be private goods, whereas the ‘creative commons’ that allow many other artists to commercialise their production without being
contracted by corporations should be understood as public goods. The author provides another example of urban gardening, which is closer to existing SE practices in South Africa. These practices would enhance the creation of internal goods in form of relationship towards natural goods and commodities, as well as the communitarian exchange of goods that fosters the creation of a local social network of relations and supportive institutions for the gardening practice (Lautermann, 2013).

The increasing attention attracted by social enterprises, as a vehicle of development and SE, understood as the process of social innovation, revitalised the discourse on the role of private enterprises in the development process (de Mendiguren & Castresana, 2013). The analysis of case studies based on experiences of Swedish social ventures suggested that the dynamics of these organisations are interrelated with the institutions determining their context; whereby they promote innovation while they need to understand and align with the status quo (Gawell, 2013). A clear example of this compromise is the increasing independence of social ventures from public funding, the implementation of entrepreneurial business models and the contemporary inclusion of these organisations in the public procurement supply chain, which requires them to comply with existing rules and regulations.

The debate became even more relevant at the advent of the deadline set by the United Nations to achieve the Millennium Development Goals. The analysis of alternative systemic solutions to achieving these ambitious global targets, proposed three main approaches including corporate social responsibility initiatives, public private partnership for development and the bottom of the pyramid approach (de Mendiguren & Castresana, 2013).

Porter and Kramer (2011) contributed to this discourse proposing a further alternative, which implies engaging corporates on the creation of shared value. According to the authors, corporates are often inclined to favour achieving short-term financial goals rather than focusing on the real needs of their customers and include in their strategies a consideration for the long-term impact of their operations. Furthermore, they argue that governments and civil actors have been
co-responsible for the institutionalisation of this approach, having fostered the dichotomy between economic efficiencies and social development through their policy choices. Therefore, they claim that capitalism should be the preferred vehicle to improve efficiencies, create employment and meet human needs. In their view, this process would lead to economic growth, high innovation rates and societal benefits. The process of shared value creation should therefore unfold with corporations focusing on reconceiving products and markets, redefining productivity in their value chain and enabling local cluster development (Porter & Kramer, 2011). Coherently, social enterprises adopting viable business models should be the preferred vehicle for social innovation and their performances should be measured by their ability to creating shared value, enhancing their competitiveness while advancing economic and social conditions of the communities where they operate.

Nevertheless, establishing cross-sectoral partnership and collaborative relations raises issues from an institutional perspective (Huybrechts & Nicholls, 2013). These relations are singular in their nature, since hybrid social enterprises do not fall into any specific legal category. Moreover, managing organisational legitimacy becomes even more complicated due to the necessary involvement of several stakeholders carrying a different set of interests.

Furthermore, some authors opposed the shared value approach. Economic research, in particular, consistently argued that organisations are more effective at contributing to generating welfare in society when they maximise a single objective function (Pirson, 2012). The analysis of various case studies of collaboration and partnership developed between corporate and non-corporate organisations active in developing countries, led Pirson (2012) to conclude that, despite an initial commitment towards a balance between financial and social outcomes, priority was given to one of the two over time.

2.3.2 Scaling social value

SE is a context-dependent process. It is therefore necessary for social entrepreneurs to define their innovation and analyse the different possible
available mechanisms to spread their impact and replicate their model (Dees, Anderson & Wei-Skillern, 2004). These authors identified three diverse solutions including dissemination, affiliation and branching. The first and least complex one involves the active provision of information and support to others who want to bring the innovation to their community. Affiliation involves a formal agreement to include an organisation or individual in a network governed by the rules that could be assimilated to business franchises. Lastly, branching involves the physical expansion of an organisation by establishing local sites of one central organisation.

Nevertheless, impact does not necessarily derive from serving more people, but from the quality of the service provided and its closeness to their real need (Dees et al., 2004). Subsequently, organisations intending to expand should consider readiness of the innovation, receptivity of the community, the resources required, the risk of failure and its potential consequences and the bottom line, in terms of returns. A case study analysis conducted by Weerawardena, McDonald and Mort (2010), highlighted the reflexive relation existing between capital raising and delivery of services to targeted customers. Accordingly, the quality of service delivery is necessarily constrained by the access and availability of funds, irrespective of their nature. Furthermore, Weerawardena, McDonald and Mort (2010) proposed that social enterprises focus their innovative effort on developing unique fund-raising strategies and the need for financial sustainability, which will affect the operational efficiency and strategies of the organisation.

The creation of value relates to content and process, therefore requiring practitioners to possess tools to evaluate outcomes as well as the process itself (Ormiston & Seymour, 2011).

With regard to the measurement of value generated by social enterprises, the corporate social responsibility movement theorised the creation of multiple bottom lines (Pirson, 2012). During the past decade, the expectation of corporations was mostly influenced by adoption of practices to implement the triple bottom line, focusing on financial, environmental and social outcomes
(Elkington, 1998). Following the trend, rating agencies such as Bloomberg and Thomson Reuters adopted a social return on investment index and other criteria inspired by the triple bottom line to provide their evaluation of investments (Marquis, Beunza, Ferraro & Thomason, 2010). However, Young (2006) noted that the heterogeneity of the field requires scepticism towards the application of strict methodologies, as they may rather become proxies for the realities they intend to understand. Additional complexities come from the fact that it remains unclear whether the assessment tools influence the value created by the social entrepreneur (Ormiston & Seymour, 2011).

2.4 Emergent hybrid non-profit organisations

2.4.1 Hybridising social enterprises

NPOs pursue the mission of serving social needs that could not be addressed efficiently by institutions, nor could they be profitably tackled by governments (McDonald, 2007). In order to succeed, NPOs rely on a multitude of stakeholders and employ a unique operational model. While the economic crisis affected donors, philanthropists and corporations around the world, non-profit organisations increasingly offered revenue-generating services, relying on a broad range of business models (Dees, 1998; Volkman et al., 2012), which comprised market orientation, innovation and sociality (Nicholls & Cho, 2006). These forces are fostering the convergence of business, government, institutions and non-profit organisations towards a common social space (Escobar, Gutierrez, Gutierrez & Carlos, 2011). However, the increased competition in the sector forced all the existing organisations to adopt new strategies that should enable them to pursue their social mission efficiently, effectively and sustainably (Dart, 2004).

Extensive research argued for the strategic importance of market orientation as the key factor to competitive success of for profit ventures (Green, Inman, Brown, & Willis, 2005). The SE field is more complex and therefore different proposals arose from literature. Some authors theorised that NPOs should adopt an
entrepreneurial posture to deliver their operations (Weerawardena & Mort, 2001) and adopt innovative practices to capture competitive advantage (Jaskyte, 2004; McDonald, 2007). Others suggested adopting market orientation to meet the increased competition (Nicholls & Cho, 2006).

In opposition, other scholars heavily criticised the marketisation of the non-profit sector (Eikenberry & Kluver, 2004). A critical analysis of the implications of this process showed that market-oriented organisations become inclined to shift their focus from public goods such as teaching, advocacy and serving the poor, to address customer demands. Furthermore, commercialising public goods may broaden the gap between the affluent and the poor. Finally, a non-profit adopting this business model may hinder the civic participation to public development, creating a serious threat to civil society as a whole (Eikenberry, 2009).

The market orientation adopted by a significant number of non-profit organisations in developed as well as developing countries brought to the industry a completely new perception of their beneficiaries. According to this new business approach, the organisations should consider their service user as a customer and strive to fulfil the customer’s demand in order to achieve their goal while increasing performance (Choi, 2012). Further studies proposed to substitute the perspective of market orientation with strategies for learning orientation, which is becoming a key factor for organisational competitiveness in our knowledge-based societies; however, a limited set of empirical studies were published analysing this perspective in the non-profit sector. The major contribution came from Choi (2012), who tested a theoretical model to relate learning orientation, market orientation and innovation in non-profit organisations, through an analysis of community centres in South Korea (Figure 3).
Overcoming the social versus commercial dichotomy, Emerson, Bonini and Brehm (2003) proposed that social enterprises deliver ‘blended value’ to the society. Chell (2007) further explored the concept, providing support for the concurrence of economic and social value. Thereafter, Billis (2010) forged the term ‘hybrid organisations’. According to the one of the first definitions, these would have had the purpose of a non-profit with a for-profit approach (Dey & Steyaert, 2010).

Alter (2006) proposed to differentiate these categories along a spectrum that ranges from non-profit to for-profit enterprises, including four hybrid categories, namely non-profit enterprises with income generating activities, social enterprises, socially responsible enterprises and enterprises practicing social responsibility, as represented in Figure 4.

At the extreme left of the spectrum there would be ‘embedded social enterprises’ (Alter, 2006), whereby social programs and business activities are synonymous, implying that social programs are self-financed through the revenues of the enterprise itself. Some organisations, particularly those of American origin, were formed as social ventures with diversified revenue strategies since their inception, in order to balance their resource dependency (Froelich, 1999). Therefore, they lived in the paradox of balancing dual identities (Moss, Short, Payne & Lumpkin, 2010) of a utilitarian and normative nature.

Interestingly, a relation was found between the degree of public benefits generated by a service and the proportion of revenue that it generates (Fischer,
Wilsker & Young, 2010). Their funding mix is often dominated by other sources then earned income from sales (Bacq et al., 2013).

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**Figure 4: Social enterprise typology and dual value creation**

(Alter, 2007; Volkmann et al., 2012, p. 22)

In the middle of the spectrum there are integrated social enterprises (Alter, 2007), in which social programs and business activities overlap without being synonymous. This organisational type funds its business by leveraging on organisational assets, such as expertise, social capital and networks, infrastructure and brand. These organisations are the closest to Porter and Kramer’s (2011) model of shared value. An example is a private hospital offering their services for a market fee to wealthy patients and then reinvesting the profit to sustain the costs of the same services offered to the poor in the free hospital (Pirson, 2008). Other examples in this category are corporate social enterprises. Austin, Leonard, Reficco and Wei-Skillern (2005, as cited in Larsen, 2014), identified the practice of corporate social entrepreneurship as an extension of the firm’s access to opportunity through leveraging of resources, with a clearly stated
aim for the creation of economic and social value. These entities should result in
the generation of positive turnover over the long-term. In practice, a company
could better maximise profit by investing in corporate social enterprises rather
than allocating funds into corporate social responsibility programmes (Baron,

At the other end of the spectrum are external social enterprises, which are
organisations running social programs that are independent from their business
activities. In fact, business operations are separately created as a source of
fundraising to support the social program, but they are not necessarily aimed at
pursuing social benefit themselves (Pirson, 2008).

2.5 Change management processes to hybridise

2.5.1 Organisational learning and change management

“In an entrepreneurial society individuals face a tremendous challenge, a
challenge they need to exploit as an opportunity: the need to continuous learning
and relearning” (Drucker, 1985, p. 263). Innovation and entrepreneurial studies
highlighted the need for ventures to innovate and continuously learn. Organisational learning is a dynamic knowledge based process that moves from
the individual to the group until it reaches the organisational level from where it
filters down to close the circle (Huber, 1991, as cited in Gunsel, Siachou & Acar,
2011). The process includes the acquisition, distribution, integration and creation
of information and knowledge among the members of the organisation. Therefore, organisational learning and knowledge management are
complementary to each other, whereby the first is concerned with the process
and the latter is concerned with the content (Gunsel et al., 2011).

Empirical studies of Taiwanese firms suggested that organisational learning is
the mediating variable between knowledge management and organisational
innovation (Liao & Wu, 2010). Previous research on knowledge management
applied the life-cycle model, in a context of organisational innovation, as represented in Figure 5.

![Knowledge management cycle model](image)

**Figure 5: Knowledge management cycle model**

(Gunsel et al., 2011)

From a resource-based perspective, learning can be considered a capability because organisations could obtain several benefits when transforming the outcome of the acquisition of knowledge into rare, valuable, non-substitutable and inimitable routine procedures (Gunsel et al., 2011). OLC would be based on a culture that promotes individual knowledge acquisition evolving throughout the organisation (Camps & Maiocchi, 2010).

Further research proposed that the same approach may enhance performances of non-profit organisations too (Flavián & Lozano, 2006; Gainer & Padanyi, 2005) and it should be integrated with practices of organisational learning (Choi, 2012; Escobar & Gutierrez, 2011). Fazle Abed (2005), founder of the Bangladesh Rural Action Committee (BRAC), as cited in Dey and Steyaert (2010), one of the largest development NGOs, declared, “... the way we operate is very entrepreneurial, we question everything, we’re continuously learning to do things better” (p. 91).

Bennett (1998) analysed organisational learning of non-profit organisations from a process perspective, proposing a five element scale, including an external approach to determine the needs of donors and strategies of competitors,
change and innovation, values and teamwork, information dissemination and training.

Dees (2009) suggested that social enterprises where knowledge does not circulate effectively are very likely to cause waste of resources that negatively affect the community where they operate and hinder the potential to scale social innovation. Moreover, innovation is among the key factors for survival in the non-profit sector, as it is for traditional businesses (Jaskyte & Dressler, 2005).

An important challenge of the non-profit organisation is its ability to engage and enhance processes of continuous innovation (Kramer, 1987), particularly in terms of implementation of new ideas or change management to innovate on existing internal structures and practices (Grant & Crutchfield, 2007, as cited in Dover & Lawrence, 2012). Researchers and practitioners acknowledged the need to investigate and propose solutions to this issue, to support those organisations seeking to foster innovation for social development. Dees et al. (2001) connected the need for a culture of innovation to the implementation of reward mechanism to reinforce implementation of new ideas and create a balance between innovation and stability.

Through analysis of case studies, Chad (2014) introduced a framework for change management based on developing a professional culture at every level of an organisation, adopting strategic internal communication initiatives to transfer information and knowledge, and developing a strategic orientation. Furthermore, promoting learning among employees would enhance their engagement and increase their sense of belonging to the organisation, therefore fostering a culture of alertness to new opportunities (Marques, 2007).

A recent publication by Tandon (2014) investigated the peculiarity of the learning process contextualised to social enterprises and was based upon an interpretive paradigm, which takes into consideration the social and contextual aspects of the process, whereby the outcome of the process must occur through practice (Bordieu, 1977, as cited in Tandon, 2014). Therefore, the learning process characterising social enterprises would evolve across boundaries due to
complexities of the cross-sector environment in which they operate and the context-specific solutions they need to implement (Tandon, 2014). Volkman et al. (2012) provided a useful graphic representation of such complexities, as seen in Figure 6.

![Figure 6: The SE Ecosystem](image)

(Volkman et al., 2012)

According to Hull and Lio (2007), the contractual relation established by non-profit organisations with their employees and volunteers hinders their propensity to adopt internal innovative solutions and processes, unless they clearly perceive
that the required change directly improves their capacity to generate social change. Camps and Maiocchi (2010) argued that there is a positive relation between organisational learning capability and employability. Employees working in organisations with a strong learning culture would develop a strong self-confidence to own the skills required to find a job when needed or to identify opportunities to create one. Supporting this thesis, organisations with high levels of OLC would hold a great potential to foster social innovation, particularly in a context such as the South African one, which is strongly affected by unemployment and high skill gaps.

2.6 The social innovation process

2.6.1 Defining social innovation

Innovation studies turned their attention towards the social component of innovation only in the recent past. The increasing importance attributed to the non-profit sector and the extensive body of knowledge proposing a positive relation between the degree of innovation of for profit organisations and the performance of an economy motivated a new field of research to investigate the innovation process in NPOs and its outcome (Mulgan, 2006; Zimmermann, 1999).

Definitions for social innovation were created combining a goal-oriented as well as a process-oriented innovation. In organisational studies, the construct focused on investigating social capital as a key resource to foster learning, skills development, creativity, and knowledge conversion to build learning capacity and improve adaptability of the organisation to the ever-changing conditions of the environment (Grimm, Fox, Baines & Albertson, 2013).

Territorial studies expanded the body of knowledge on the construct by investigating the effect of networks and collaboration on regional economic development (MacCallum et al., 2009, as cited in Grimm et al., 2013). Furthermore, environmental studies highlighted the potential of bottom-up
developed solutions to address local and cultural change challenges (Seyfang & Smith, 2007), reinforcing the regional perspective on social innovation (Innobasque, 2013).

From an institutional perspective, social innovation results from the exchange of knowledge and resources among actors, whereas structuration theories would understand the construct as the collective engagement of individuals in purposeful actions (Cajaiba-Santana, 2014). Mulgan et al. (2007) in their seminal paper exploring the construct of social innovation provided a definition according to which the actors involved in creating social innovation are primarily organisations with a social mission.

According to Hall and Vredenburg (2003, as cited in Lettice and Parekh, 2010), social innovation is more ambiguous and complex than conventional innovation processes applied by businesses, due to the higher number of stakeholders having different interests, value sets and priorities.

To clarify the several definitions provided about the construct, Anderson, Curtis and Wittig (2014) suggested classifying them on the basis of their focus on the noun ‘innovation’ or on the adjective ‘social’.

From the perspective of innovation, Escobar et al. (2011) noted that the difference between business and social innovation lies in the fact that the latter should be developed to be made accessible to all the parties who bear an interest on it, whereas the former is protected by the company developing it through systems such as patents, intellectual property rights or trade secrets. Therefore, social innovation could only flourish in a society where the actors are proactively role modelling to inspire others to adopt the supplied methodology, product or process to address a common issue. Accordingly, hybrid enterprises would intrinsically be a social innovation.

This research focuses on the latter, regarding the construct as the innovation of social practices, therefore requiring a reflection on social relationship structures (Howaldt & Kopp, 2012). Social innovation would be the outcome of establishing a new way of thinking and acting, one that fosters implementing change on
existing paradigms. It would materialise taking the form of new social movements, institutions, social practices or even different structures of collaborative work (Cajaiba-Santana, 2014).

The European Commission released the Green Paper on Innovation (Europa, 2005) to identify factors influencing innovation in Europe and aiming at enhancing the capacity for innovation of the continent.

Innovation is not just an economic mechanism or a technical process. It is above all a social phenomenon. ... By its purpose, its effects, or its methods, innovation is thus intimately involved in the social conditions in which it is produced (Europa, 2005, p. 11).

Addressing the major societal challenges affecting European societies, social innovation was identified as the most important alternative to technological innovation, to address and solve societal issues affecting knowledge and service based economies (Dees, 1998). In developing nations, social enterprises enhance social innovation, rather than creating technical innovation (Rametse & Shah, 2013).

2.6.2 The process of social innovation

Within this conceptual space, social innovation is regarded as an integral part of SE (Choi & Majumdar, 2014) relating to the mission directing organisations (Ormiston & Seymour, 2011). In order to achieve their goals, social entrepreneurs engage in creating social value through continuous improvement and innovation (Dees, 1998). Building on Schumpeter’s view on the nexus between innovation and change, social entrepreneurs were interpreted as innovators of the social field (Mair & Marti, 2006; Seelos & Mair, 2012), who can lead to the creation of sustainable social change (Dees et al., 2001; Martin & Osberg, 2007).

In their effort to explain the process that leads social enterprises to the creation of social value, Weerawardena and Mort (2006) expanded the multi-dimensional model based on innovation, pro-activeness and risk-management to include the
dimensions of partnerships and networks. Rametse and Shah (2013) suggested that the latter has an important facilitating role particularly in developing countries, with the mechanism simplified in Figure 7.

Different stakeholders should have a collaborative approach, sharing their information, knowledge and resources to contribute to creating the social outcome the partnership aims for, on the basis of real needs of the end-users and of the parties involved (Bekkers, Tummers & Voorberg; 2013).

![Proposed multidimensional model of SE](image)

**Figure 7: Proposed multidimensional model of SE**

(Rametse & Shah, p.103)

The process leading to the development of social innovation is usually described as incremental (Mulgan et al., 2007), although, it may require fundamental change that dramatically challenges and changes the status quo.

In spite of the tendency of researchers to focus on the positive outcomes of social innovation, Newth and Woods (2014) deepened the analysis to propose
that social ventures faced with “positive resistance” (p. 3) would be more likely to achieve financial sustainability, align their organisational mission, strategy, social values and business model while taking into account cultural values and heritage. According to the authors, resistance may come from several sources, that could be simplified into four different drivers, namely organisational, societal, institutional and market. These would withhold support for initiatives that are not aligned with existing practices and beliefs characterising the status quo, as represented in Figure 8.

![Figure 8: Enabling and constraining contextual forces of social entrepreneurship](newth_woods_2014_p7.png)

It is important to highlight that social entrepreneurial initiatives occurring in existing non-profit and socially intrapreneurial projects (Newth & Woods, 2014) occurring in existing for-profit entities are influenced by path dependency, institutional logic and established organisational factors.
Organisational inertia forces the aspiring social entrepreneur to provide a case and seek supporters in order to implement his proposal to pursue a change to the status quo. Furthermore, research conducted among Taiwanese firms proposed that the problem-solving strategy applied to seek for solutions capitalising on previous knowledge has a mediating effect on organisational innovation through organisational learning (Liao, Fei & Liu, 2008).

Therefore, according to the authors, the dynamics characterising social innovation in these organisations, that are the subject of this study, differ from those of start-up or born hybrid social enterprises, where the implementation of innovative solutions is questioned with regard to its sustainability and capability for social impact, not for its legitimacy.

2.6.3 Social Innovation in South Africa

The South African Government and Municipalities acknowledged the need for developing and implementing innovative solutions that should benefit the poor, particularly those living in rural areas (Hart et al., 2014). According to the Human Sciences Resource Council (Hart et al., 2014) social innovation in South Africa should be equated to innovation for development, hence it should be fostered by focusing on the creative potential of human agency in the poor communities themselves. Three different definitions of social innovation seem to be applicable in the South African context. The first one would highlight the social benefit produced as outcome of services or goods. The second definition would focus on social collaboration and organisational settings that favour implementing that innovation. The third one combines the first two, defining social innovation as those services, practices and models that involve social collaboration and meet social requirements (Hart et al., 2014).

2.7 Organisational learning capability and social innovation

This section presents the elements that facilitate organisational learning and their relation to the capability of an organisation to enact social innovation. This
research operationalised organisational learning capability according to the definition and measurement proposed by Chiva and Alegre (2009). Accordingly, the construct implies experimentation through searching for innovative solutions to social challenges, requires support for creativity and tolerance for failure and enhances the relation with the external environment.

2.7.1 Experimentation

OLC is grounded on an environment with a culture that fosters individual acquisition of knowledge and its transfer to the organisation as a fundamental value (Garvin, 1993, as cited in Camps & Maiocchi, 2010). Experimentation falls under the category of organisational learning capability. It involves curiosity, testing of new ideas and implementing changes in operational processes (Chiva et al., 2007) by trying innovative problem solving methods. Experimentation materialises through incremental changes (Weick & Westley, 1996), therefore contributing to foster a creative environment. From the critics move to the marketisation of NPOs (Eikenberry, 2009) it emerged that the focus on implementing innovative practices to increase competitiveness may lead to a shift away from the goal and mission of the NPO (Eikenberry & Kluver, 2011). A qualitative study conducted among 10 prominent organisations in the UK provided evidence that social innovation evolves from the organisational capability to challenge existing social problems by inquiring about their root causes and posing new questions, so to obtain a new perspective on reality (Lettice & Parekh, 2010).

Nevertheless, it was disputed that NPOs provide a unique setting to encourage employee and staff to participate in the innovation process, since it cannot involve monetary incentives (Chalmers & Balan-Vnuk, 2013). Hull and Lio (2007) supported this perspective, proposing that the mix of employees, consultants and external project managers involved with social enterprise initiatives would hinder the capability to experiment and the propensity to seek internal change, which may inhibit the perception of one’s ability to foster social change. However,
internal job flexibility positively affects the innovation climate of an organisation, while flexibility of personnel would be a hindering factor (Ronquillo, 2011).

On the contrary, Chalmers and Balan-Vnuk (2013) proposed that the organisation might implement a set of internal practices to stimulate personal interest in the issue, commitment to solving it and passion to develop innovative solutions. Furthermore, volunteerism and corporate volunteering initiatives foster diversity of background and knowledge domains in the organisation environment, that in turn facilitate the testing and spreading of new ideas (IFRC, 2011) and the propensity to implement them. In fact, having access to different sources of knowledge and diversify the partner portfolio. Moreover, are variables that describe the capability for developing social innovation by experimenting new means of solving social issues.

- Hypothesis 1 null: There is no relationship between South African hybrid NPOs’ experimentation and their capability for increased social innovation.
- Hypothesis 1: There is a positive relationship between South African hybrid NPOs’ experimentation and their capability for increased social innovation.

2.7.2 Risk taking

Risk taking represents the organisation’s propensity, ability and willingness to take risk (Covin & Slevin, 1998). The main discerning factor between non-profit and for-profit propensity for risk-taking is their accountability for failure (Hull & Lio, 2007). While commercial entrepreneurs seek high-risks in exchange for high-returns (Covin & Slevin, 1991), it is the sense of responsibility to deliver on a social mission that cause NPOs to be risk-averse. Weerawardena and Mort (2006) proposed that social entrepreneurs have risk-management qualities, instead of risk-taking qualities, as do their commercial counterparts. NPOs are accountable to their funders and donors, as well as to the communities to whom they present their products and services with a unique selling proposal focused on the social value that they would be able to deliver. In particular, these
organisations are constrained by the lack of a standard method to evaluate their success, which hinders their capacity to leverage on prospective potential returns on risky initiatives (Hull & Lio, 2007). Public and NPO managers were used to act in an environment that was conducive to perpetuate allocation of funding to organisations tightly linked to the issue they would be expected to solve and their beneficiaries. Until today, the private sector has been more inclined to donate money to charities to satisfy them, rather than seeking collaboration to embark on innovative initiatives (Greater Capital, 2014). This approach modelled a generation of leaders who is not inclined to take risks, and is particularly averse to the possibility of disruptive innovation that inevitably carries potential for failure (Mulgan, 2006).

However, the behavioural dynamics of a social enterprise are informed by firm moral commitment to the mission and a drive for sustainability. Accordingly, McDonald (2007) highlighted that mission-driven organisations are faster than others to adopt innovative solutions that may include capacity building in the community, distributing innovative products or mobilising a mass to tackle structural causes of social issues (Alvord, Brown & Letts, 2004). Social enterprises constantly seeking new approaches to intervene in solving social issues reflect a level of risk bearing in light of promoting social innovation (Hoogendoorn & Pennings, 2010). Frumkin, (2002, as cited in Dover & Lawrence, 2012) identified non-profit organisations as a laboratory for risk taking, the best place to test and evaluate new ideas. Trust is a particularly important factor to motivate project managers of non-profit organisations to undertake risky innovative initiatives (Stull & Stingh, 2011).

- **Hypothesis 2 null:** There is no relationship between South African hybrid NPOs’ risk taking and their capability for increased social innovation.
- **Hypothesis 2:** There is a positive relationship between South African hybrid NPOs’ risk taking and their capability for increased social innovation.
2.7.3 *Interaction with environment*

The external environment is a key source of knowledge nurturing the innovation process (Chesbrough, 2003) and social innovation is context dependent (Martin & Novicevic, 2010, Overall et al., 2010). Therefore, NPOs aiming to enhance it should understand their environment and implement effective means of constantly communicating with external stakeholders such as developing a network of community contacts, allocating staff to working directly with the community, collecting data through surveys and attending external events (Chalmers & Balan-Vnuk, 2013). Expanding on Bourdieu’s social capital theory and Granovetter’s argument on embeddedness, Dufays and Huybrechts (2014) indicated that economic phenomena occur in a social context, involving the organisation in a network of relations that are likely to influence the influence and effectiveness of an organisation, its access to resources as well as its legitimacy. Therefore, social enterprises often operate under collective or cooperative structures (Shaw & Carter, 2007), leveraging on peer-support structures (Lettice & Parekh, 2010).

A study of a Canadian social enterprise active in South Africa reported that local social entrepreneurs are becoming more and more aware of the importance of social capital, to the point of attaching to it more value than financial capital (Brière, Tremblay & Daou, 2014).

The most common application of the notion of a social network in SE literature, consider networking a critical skill for the success of an organisation, often requires a different skill-set and competencies compared to commercial entrepreneurship (Dufays & Huybrechts, 2014). Particularly the social entrepreneur should be capable of connecting with social and community values and mobilising their real potential through networking (Chell, 2007; Shaw & Carter, 2007). The core asset of a social entrepreneur should be the value he can bring from his social network in terms of acquiring ideas, attracting talent and money (Leadbeater, 1997; Jiao, 2011). Failing to connect to the right network may limit access to resources and lower the morale of the staff, therefore hindering the capability to innovate (Lettice & Parekh, 2010).
Furthermore, the type of network that would be critical to scale ideas, as identified by Moore and Westley (2011) are often absent. Nevertheless, accessing knowledge through collaboration and implementing governance systems that allow for effective partnership enhances the capability of an organisation to generate social innovation (Chalmers & Balan-Vnuk, 2013, Innobasque, 2013). According to Burt (1992, as cited in Dufays & Huybrechts, 2014), the individual centrally positioned in a ‘structural hole’ within a large and heterogeneous network, who can control the information flow, has an advantage to access and control information, and is therefore more likely to identify and exploit opportunities. This proposition found support by other authors who demonstrated that structural holes positively relate to creativity, innovativeness and performances of commercial enterprises. However, the proposition was not yet tested for social venture organisations.

Moreover, the increasing complexity of our societies calls for cooperation, collaboration, partnership and alliances across sectors, between profit and non-profit organisations that would encourage SE initiatives to rise and enhance the development of innovative approaches to solving social issues (Jiao, 2011; Porter & Kramer, 2011; Seelos & Mair, 2005).

- **Hypothesis 3 null**: There is no relationship between South African hybrid NPOs’ interaction with the environment and their capability for increased social innovation.
- **Hypothesis 3**: There is a positive relationship between South African hybrid NPOs’ interaction with the environment and their capability for increased social innovation.

### 2.7.4 Organisational dialogue

The model of organisational capability for continuous innovation in non-profit organisations, proposed by Seelos and Mair (2012), highlights the importance of factors such as absorptive capacity and knowledge management. Developing a qualitative study of a population of UK based social enterprises; Chalmers and Balan-Vnuk (2013) identified practical examples of these practices that support
the validity of the framework for an NPO context. They reported that implementing knowledge management initiatives such as peer training, building a project database, facilitating informal meetings and fostering employees subscription to external sources of reports and participation in conferences and events would enhance the capability of the organisation to generate social impact and innovation. Furthermore, sourcing from the findings of research on business innovation, social innovators should develop the capability of peripheral vision (Day & Schoemaker, 2005, as cited in Lettice & Parekh, 2010), that is the ability to scan for weak signals of opportunities available in peripheral locations. In practice, this implies searching for emerging approaches to using technologies to alleviate social issues. Business practices promote the inclusion of innovators in project teams working in a completely different field or industry than their own, to then bring back to their organisations totally different mind-sets, perspectives, examples of processes (Lettice & Parekh, 2010). Moreover, in social enterprises learning is likely to occur when different departments and teams interact with each other (Tandon, 2014). According to the research by Tandon (2014), learning may be reinforced by the interaction of social enterprise actors with external stakeholders, through a complex structure of boundaries and agents who can bridge the gaps due to diversity. A model was theorised to explain the ideal social structure to sustain and facilitate such a process, as shown in Figure 9.
Particularly, social enterprises involving volunteers, consultants and external project managers or social workers, closely connected to the community targeted by the organisational intervention, hold a significant amount of tacit knowledge. It is therefore crucial for these organisations to harness this knowledge to their best interest through a structure that facilitates circulating information (Tandon, 2014) and transforming them into significant internal practices aimed at achieving the organisational mission. Therefore, the hypothesis were derived:

- **Hypothesis 4 null**: There is no relationship between South African NPOs’ organisational dialogue and their capability for increased social innovation.
- **Hypothesis 4**: There is a positive relationship between South African NPO’s organisational dialogue and their capability for increased social innovation.
2.7.5 **Participative decision-making**

According to Penrosean theories, there is a positive relation between accessing valuable resources and firm performance. These resources may be physical or intangible. In the SE context, a venture’s success relates highly to its capacity to attract, develop and retain highly valuable personnel, who may engage voluntarily or professionally (Roomkin & Weisbrod, 1999, as cited in Hull & Lio, 2007). However, organisational structures of traditional NPOs tend to prevent lateral and vertical collaboration, fostering an environment that is hostile to innovation (Dougherty & Hardy, 1996). Furthermore, Ostrower, Stone, Powell and Steinberg (2006) found that often NPOs do not engage in formal strategy development processes, rather they adapt to fulfilling expectations and priorities of funders.

Nevertheless, case studies from Google, IBM and 3M as well as studies in the small and medium enterprise (SME) environment (Chiva et al., 2007) indicated that proper organisational structure facilitating inclusive decision-making practices would greatly support organisational learning and innovation. Exploratory studies of BRAC in Bangladesh and Sekem in Egypt seem to support the validity of this thesis for non-profit organisations. According to Stull and Stingh (2011), in medium and small NPOs, trust relations of project managers with their teams are the unique motivator for them to undertake innovative initiatives. Transformational leaders, who could foster innovativeness at organisational level, leverage on intellectual stimulation of their collaborators and employees, inspire and seek to create a feeling of unity while fostering commitment towards the achievement of the high organisational vision (Bryman, 1992, as cited in Jaskyte, 2004).

Case studies from the UK developed employee engagement strategies to support the development of new strategies, therefore increasing employee motivation (Chalmers & Balan-Vnuk, 2013). NPO staff motivation is more dependent on alignment to the mission than on economical return obtained for one’s performances in generating social impact. Therefore, increasing
commitment through engagement would increase the capability of a NPO to develop social innovation.

Moreover, the findings of the Global Leadership Index (World Economic Forum, 2014) highlighted that the respondents in this global study are most confident about NPO leaders, when compared to leaders of any other sector, because they are trusted to advocate for the marginalised and under-represented through the action delivered by their organisations. The profile emerged from the study portrays the best leaders as inclusive, mediators, good listeners, who can empower their team to execute through delegation and keeping positive in the face of adversity.

- **Hypothesis 5 null:** There is no relation between South African hybrid NPOs’ participative decision-making and their capability for increased social innovation.
- **Hypothesis 5:** There is a positive relationship between South African NPOs’ participative decision-making and their capability for increased social innovation.
2.8 Conclusion of literature review

Figure 10 represents the theoretical model proposed for the study.

Control Variables: Age | Gender | Level in the organization | Size

Figure 10: The theoretical model of the study
CHAPTER 3. RESEARCH METHODOLOGY

This chapter presents the methodology used to address the objectives of the study. Each of the following sub-sections contains the theoretical grounds and their application for the evolution of the research. The chapter flows from the positivist methodology justifying a deductive quantitative approach to the research. Thereafter, the population of the study and the sampling technique are presented, followed by the explanation of the process for data collection. Subsequently, the methods for data analysis are explained, followed by the validity and reliability of the study as well as its potential limitations.

3.1 Research methodology

3.1.1 Theoretical basis of the study

The research is based on institutional theories; particularly, new institutional theories, which comprise three, normative, cognitive and regulative pillars. These were summarised by Hoffman (1997, p. 36) as a continuum that moves “from the conscious to the unconscious, from the legally enforced to the taken for granted”. Applying them at a national level of analysis, the regulatory pillar would identify laws and rules promoting specific behaviours, the normative one represents values, norms and beliefs that inform behavioural patterns and the cognitive pillar focuses on how the individual understands the world by which he is surrounded (Littlewood & Holt, 2013). New institutional theories were previously applied to organisational analysis in transition economies, specifically in East and Central Europe after the fall of communism (Kostova & Roth, 2003, as cited in Littlewood & Holt, 2013). In addition, this approach was already utilised to study the nature of corporate social responsibility and its discourse in the specific context of the post-apartheid South African (Hamman, 2004).

Several studies on SE focused on creating definitions (Pierre, von Friedrichs & Wincent, 2011) and contributing to establishing the legitimacy of the field (Dart, 2004). Furthermore, researchers approached the field inquiring about the
personal characteristics of the social entrepreneur, often described with heroic connotations (Bornstein, 2007). Nevertheless, new trends among researchers propose to examine the matter focusing on the collective and the group (Amin, 2009; Novkovic, 2009).

Therefore, this research applied the methodological approach proposed in previous studies on entrepreneurial orientation (Lumpkin & Dess, 1996), organisational learning (Chiva & Alegre, 2009) and the complex dynamics of innovation contextualised to SMEs (Chiva et al., 2007; Chiva & Alegre, 2009; Martínez-León & Martínez-García, 2011; Wang, 2008; Wang & Ahmed, 2004) and applied to the field of SE.

Furthermore, the context dependent nature of this study is grounded on the need for discourses on social innovation to reflect social structures and their enabling or constraining effects over agentic choices (Cajaiba-Santana, 2013).

This research followed a positivistic philosophy. The positive methodology requires adopting a theoretical model or framework to understand reality and finds support in previous investigations to create new knowledge (Camps et al., 2011; Chiva et al., 2007). Therefore, if the hypotheses are confirmed they could be applied to create a new understanding of reality and could be adopted and verified again at a later stage (Larsen, 2014).

3.1.2 Implementation phases of the research

The process followed was reported thoroughly in order to facilitate the replicability of this study for any future research (Larsen, 2013).

Scholars argue around the possibility of comparing academic research to a project, with all the related implications of managing budget, deadlines and responsibilities (Brown, 1999). This study was developed following a set of phases proposed in literature (Suhr, 2006):

- Step 1: A conceptual framework was developed for testing the model;
- **Step 2**: A questionnaire was created for measuring the modelled constructs;
- **Step 3**: Measurement scales were determined for each of the measurement items;
- **Step 4**: The instrument was pilot tested and reviewed;
- **Step 5**: The online questionnaire was administered for data collection;
- **Step 6**: Reliability, validity and normality assumptions of the measurement scales were investigated and compared to theoretical expectations. Exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) were adopted to empirically test the existence of a relation between the variables of the study and their underlying constructs; and then
- **Step 7**: Structural equation modelling was adopted to test the model of the study and determine the characteristic of the relations hypothesised. These findings served to derive implications, conclusions and recommendations.

### 3.1.3 Assumptions adopted in the study

Furthermore, the research adopted some assumptions to prove the validity of the study, whereas the quantitative data collection and statistical analysis intended to aim for generalisation of the results in similar contexts to South Africa. Reality is assumed singular and tangible; social facts are assumed to have an objective reality. Therefore, this can be studied through experiments on variables that can be controlled and isolated (Leca & Naccache, 2006).

Although the main body of knowledge on SE was produced through qualitative studies (Hoogendorn et al., 2011); empirical studies of reality allow the development, testing and validation of a theory, which are necessary constituents of any research field (Eisenhardt, 1989). Furthermore, the analysis of non-quantified data sourced from numerous case studies to analyse several variables is beyond the cognitive capacity of a researcher (Davidsson, 2004, as cited in Urban, 2008).
The constructs of OLC and social innovation were investigated adopting an individual perspective, reflecting how each of the respondents perceive the levels of organisational learning capability (Camps & Maiocchi, 2010) as well as the capability of the social enterprise to generate social innovation.

3.2 Research design

The research adopts a deductive quantitative descriptive method. It focuses on describing, explaining and making predictions on the constructs and their relations (Cooper & Schindler, 2011).

The research was conducted through a survey, which was aimed at gathering primary data and deriving information from subsets of the chosen sample. The constructs were analysed through a cross-sectional analysis of the population, where from the primary data were collected. The information had been derived from surveys distributed to the selected sample of NPOs in South Africa. The analysis only referred to organisations active in the social sector, to avoid a common problem of management studies that are contemporarily run across product and service industries, which are diverse in terms of technology and economies (Coombs, Narandrenm & Richards, 1996).

3.2.1 Avoiding errors of communication research

Three main types of errors might occur when developing research based on the communication method. These relate to errors in the measurement question and survey, interviewer approach and participants (Cooper & Schindler, 2011). Errors related to the measurement instrument were avoided relying on previous organisational literature to structure the items of the survey, and conducting a pilot study among a small group of respondents in order to get feedback on the appropriateness of the questions in relation to the context.

Error of the interviewer could have been the main source of response bias. This research was conducted through distributing online surveys to all the respondents. However, in order to secure full participant cooperation, which
could have been limited by computer facilities and internet access, copies of the survey were made available to the respondents, through the local offices of the organisations involved.

Participant error is often caused by the lack of understanding by participants about their role, the relevance of their contribution to the outcome of the research, and lack of motivation to contribute (Cooper & Schindler, 2011). Therefore, an introduction to the study was provided, to present the research and its aim, together with the direct benefit that participating organisations would have gained from having first-hand access to the conclusions derived. The role of a researcher in conducting self-administered studies is to encourage participants to engage with the survey and to complete it. Previous research has shown that the more educated the individuals are, the more likely they are to participate in surveys and reiterate the experience for others (Cooper & Schindler, 2011). The sampling procedure considered this phenomenon in order to avoid the nonresponse error. Finally, anonymity was ensured to all respondents, in an attempt to prevent them falling into the social desirability bias and acquiescence.

3.2.2 Advantages of the communication approach selected

Previous studies of OLC in SMEs (Chiva et al., 2007) and knowledge intensive industries (Camps, Alegre & Torres, 2011) adopted self-administered surveys to collect data for their analysis. Such an approach carries several benefits (Cooper & Schindler, 2011), including:

- Allowing contact with otherwise inaccessible participants, such as those social entrepreneurs working in communities outside of Johannesburg and Gauteng;
- Response rates may be increased by providing incentives, such as access to free training delivered by the researcher on relevant business model evolution topics and sustainability;
- It is the lowest cost option, requiring the questionnaires in envelopes, which were delivered by the head office to local branches, the virtual
link sent via email, and one day of training delivered to the middle and top managers of participating organisations, having them all gathered in a room to answer the survey.

- Expanding the geographical reach without increasing the costs;
- It requires a minimum number of staff to distribute the survey and collect results;
- It is perceived as anonymous by the respondents, who are free to take all the time they may need to cast their responses; and
- The online questionnaire was the most desirable instrument, since it collects and stores information in real time, preventing typing mistakes when transposing data and reducing the risk of losing data.

Nevertheless, the lack of researcher intervention in facilitating data collection implies the need for clarity and simplicity of the questions, since no further explanation could be provided. Therefore, closed-ended questions on a Likert scale were chosen to keep the instrument simple to read and understand and quick to complete.

Furthermore, all targeted respondents were informed by their head-office about the procedure to complete the survey and forward their responses online or on hard copies, to prevent data loss. Those who responded on paper would have included their hard copy surveys in a common envelope that was sent back to head office to be handed to the researcher.

3.2.3 The measurement scale and the variables

The research investigated social innovation considering it the dependent variable, influenced by the five factors of OLC, that were considered the independent variables. The scales to measure the constructs were chosen from previous studies on organisational learning in SMEs (Chiva et al., 2007), and an exploratory framework under development to facilitate multi-stakeholders studies of social innovation (Innobasque, 2013).

Both the scales were adapted to a seven-point Likert format, whereby the ratings started at one (strongly disagree) and ended at seven (strongly agree). All the
questions in the survey needed to be answered in order for the respondent to submit the survey. However, having included the possibility of answering on hard copy, the response rate of all the items was arbitrary for each respondent.

3.3 Population and sample

3.3.1 Population

The population of the study included South African non-profit organisations that have a mix of revenue streams that expands beyond donations and government grants. As per the definition provided in Section 21 of the legislation and in the Non Profit Act (RSA, 1997), a non-profit organisation is defined as “a trust, a company or other association of persons established for a public purpose and the income and property of which are not distributable to its members or office bearers except as reasonable compensation for services rendered” (p. 40).

Previous regional studies of NPOs and social enterprises in South Africa highlighted that the few organisations already involved in income generating activities were usually the larger and more stable among the entities registered as NPOs (Greater Capital, 2014).

According to previous studies on innovation, learning and knowledge are more likely to be homogeneous if the analysis is focused on entities having a similar organisational structure and operating in a similar industry (Chiva & Alegre, 2009). Only formal NPOs were included in the population, their legal status being a requisite allowing them access to enterprise development investments, corporate social investment and legal commercial revenue.

The relevant target population consisted of individuals who cover middle to senior managerial roles in the organisations thus fulfilling the operationalised definition of NPOs. Taking into account the variety of human resources (HR) and contract solutions adopted by NPOs in order to balance the trade-off between HR costs and sustainability, external project managers, social entrepreneurs and
consultants contracted by the NPO, having assumed a decision-making role, were included in the population of the study.

### 3.3.2 Sample and sampling method

Having identified the population of the study, it is advisable to proceed with framing the sample, in order to increase the probability of obtaining greater accuracy of the results, collecting data in a shorter time, accessing available members of the population and, lastly, containing costs (Cooper & Schindler, 2011). Therefore, the sample should provide a good representation of the characteristics of the population it is intended to represent, which is defined in term of accuracy and precision. Guest, Bunce and Johnson (2006) suggested that sample saturation is more easily achieved when the selected members of the sample share similar experiences with regard to the research domain.

The sampling frame was constructed with the help of the three target NPOs selected from the population. This study was conducted on a purposive non-probability sample (Cooper & Schindler, 2011) composed of NPO managers, project managers, volunteers and social entrepreneurs working with three nation-wide South African organisations, namely AIESEC South Africa, SOS Children’s Villages South Africa and Khulisa Social Solutions. The details of all the potential respondents were held and aggregated by the respective head offices of the organisations when they agreed to participate in the study.

Non-randomised sampling limits the representativeness of the sample and the potential of generalisability of the study (Babbie & Mouton, 2009). However, the lack of a legal framework identifying hybrid social enterprises does not allow identification *a priori* among the population of NPOs, without having information about their business model. The same reasoning was adopted for studies that tested OLC scale in different industries (Camps, Alegre & Torres, 2011; Chiva et al., 2007; Chiva & Alegre, 2009).

With non-probability sampling, the size of the sample is subject to rules of thumb, the project timeline and budgetary constraints. Furthermore, in the context of
South Africa, a comprehensive database of NPOs is lacking (Hart et al., 2014), specifically one that would include information on their business models. Therefore, judgement sampling appeared the most efficient and effective solution to proceed with the research. This type of purposive sampling method provides a non-probability sample conforming to certain criteria and would be most appropriate for the early stages of exploratory studies (Cooper & Schindler, 2011).

The individuals framed in the sample hold some levels of decision-making power, and are engaged in strategic discussions for their respective organisations. They may or may have not have achieved higher education and their organisational tenure may vary from less than a year to more than a decade. However, all of them are working closely with projects for social innovation, which is the construct under investigation as the dependent variable of the study.

The sample size included 80 middle and project managers of AIESEC in South Africa, 170 project managers and social entrepreneurs from Khulisa Social Solutions network and 50 senior and program managers from SOS Children’s Villages South Africa.

Preliminary meetings with the CEO of each organisation took place in order to obtain his or her endorsement and support. Participation was encouraged by cascading the questionnaire through the organisational channel to the email contacts of the sampled respondents. Thereafter, the hard copies of the questionnaire were also made available to overcome the challenges of lack of accessibility to a computer facility or Internet network. Free training on business model evolution was offered to the respondents as an incentive to collective participation.

3.3.3 External validity of the study

The external validity of research depends on whether the relationships tested and the findings of the study could be applicable to an entire population (Larsen, 2014). Therefore, it is advisable to collect data from a large sample and to avoid
the direct involvement of the researcher in the data collection of quantitative research, as it could compromise the validity of the results (Golafshani, 2003). The population was selected based on their experience and direct knowledge of the non-profit sector, and included a variety of professionals and practitioners, working in the field as project managers, middle and senior managers, social entrepreneurs, consultants and even volunteers.

Measures to prevent non-response bias included cascading the survey from head offices of organisations.

The external validity of a study is related to the potential to generalise the findings across settings, time and persons. Nevertheless, the choice to adopt non-probability sampling implied a limitation to the external validity of the research (Cooper & Schindler, 2011).

3.4 The research instrument

3.4.1 Selecting a scale to measure OLC constructs

The learning organisation literature is rich in different instruments aimed at providing organisations with a measure of their learning capability to sustain their competitiveness (Tohidi & Jabbari, 2012a). Therefore, a preliminary screening of the available measurement instruments was required, in order to reach a conclusion on the most appropriate instrument for this study. The findings are summarised in Table 3.

Go and Richards (1997, as cited in Chiva et al., 2007), provided the most commonly accepted definition of organisational learning indicating those factors that facilitate the process through which an organisation acquires knowledge and learns.

In many cases, the academically developed instruments that are more descriptive are not applied to consultancy practices (Visser, 2009). Nevertheless, these scales would be useful for governmental and non-profit organisations that
are not exposed to highly volatile markets, but do need to be adaptive to their environment. The instrument proposed would diagnose OLC in non-profit entities based on the degree of empowerment, degree of error openness, degree of knowledge conversion and the degree of adequate HR management and development. The instrument was preliminarily tested but more validation would have been required.

Often, research on learning organisations investigated learning curves, measuring the outcomes of the process (Jerez-Gòmez, et al., 2005; Tohidi & Jabbari, 2012b). However, organisational learning capability encompasses several sub-processes, and therefore it should be considered a complex and multi-dimensional construct (Chiva & Alegre, 2007).

The learning organisation literature mainly adopted the dimension of the learning organisation questionnaire, developed by Watkins and Marsick (1997, as cited in Song, Joo & Chermack, 2009). The five-point Likert scale was tested in several Asian, American and European contexts. The comprehensive framework proposed by these authors included seven dimensions, investigating people-oriented as well as structure-oriented factors. The instrument was tested among Korean conglomerates by applying CFA. This method allows validating the theoretically developed measurements, to verify the association between items and factors and to examine construct validity (Yang, 2004, as cited in Song, Joo & Chermack (2009). Moreover, the internal consistency of the items was assessed through zero-order correlation, whereas Cronbach’s coefficient alpha and item inter-correlation was adopted to examine reliability.

Table 3 provides a summary of the various measurement scales tested and validated in previous studies, encompassing American, European, Asian contexts, from profit to non-profit and government organisations.
<table>
<thead>
<tr>
<th>Author</th>
<th>Field</th>
<th>Target of the study</th>
<th>Construct</th>
<th>Dimensions</th>
<th>Scale</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alegre, Chiva, Gobert, &amp; Lapiedra, (2006); Chiva et al., 2007; Chiva &amp; Alegre, (2009)</td>
<td>Combination of learning organisation, organisational learning capability and creative climate measurement instrument</td>
<td>SMEs (Spain)</td>
<td>Organisational learning capability</td>
<td>1. Experimentation  2. Risk taking  3. Interaction with the environment  4. Organisational dialogue  5. Participative decision-making</td>
<td>Seven-point Likert scale</td>
<td>16</td>
</tr>
</tbody>
</table>
Several studies were conducted investigating the construct among small and medium enterprises active in the chemical and ceramic industries of Spain. The work was summarised by Chiva et al. (2007). They combined elements of the learning organisation literature with organisational learning ones. The result of their study led to the validation of a seven-point Likert scale to measure OLC through five different constructs, namely interaction with the environment, risk taking, experimentation, organisational dialogue and participative decision-making (Alegre, Chiva, Gobert & Lapiedra, 2006), as proposed in Table 4.
### Table 4: Original OLC questionnaire

(Alegre et al., 2006)

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Item</th>
<th>Literature Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimentation</td>
<td>1. People here receive support and encouragement when presenting new ideas</td>
<td>Isaksen et al. (1999)</td>
</tr>
<tr>
<td></td>
<td>2. Initiative often receives a favourable response here so people feel encouraged to generate new ideas</td>
<td></td>
</tr>
<tr>
<td>Risk taking</td>
<td>3. People are encouraged to take risks in this organisation</td>
<td>Isaksen et al. (1999)</td>
</tr>
<tr>
<td></td>
<td>4. People here often venture into unknown territory.</td>
<td>Amabile et al. (1996)</td>
</tr>
<tr>
<td></td>
<td>5. Untested ideas are often put forward here</td>
<td></td>
</tr>
<tr>
<td>Interaction with the external environment</td>
<td>6. It is part of the work of all staff to collect, bring back, and report information about what is going on outside the company</td>
<td>Pedler et al. (1997)</td>
</tr>
<tr>
<td></td>
<td>7. There are systems and procedures for receiving, collating and sharing information from outside the company</td>
<td></td>
</tr>
<tr>
<td></td>
<td>8. People are encouraged to interact with the environment: competitors, customers, technological institutes, universities, suppliers, etc.</td>
<td></td>
</tr>
<tr>
<td>Dialogue</td>
<td>9. A wide variety of viewpoints are expressed here</td>
<td>Isaksen et al. (1999); Templeton (2002); Amabile et al. (1996)</td>
</tr>
<tr>
<td></td>
<td>10. Employees are encouraged to communicate</td>
<td>Pedler et al. (1997); Goh &amp; Richards (1997)</td>
</tr>
<tr>
<td></td>
<td>11. There is a free and open communication within my work group</td>
<td></td>
</tr>
<tr>
<td></td>
<td>12. Managers facilitate communication</td>
<td></td>
</tr>
<tr>
<td></td>
<td>13. Cross-functional teamwork is a common practice here</td>
<td></td>
</tr>
<tr>
<td>Participative decision-making</td>
<td>14. Managers in this organisation frequently involve employees in important decisions</td>
<td>Pedler et al. (1997)</td>
</tr>
<tr>
<td></td>
<td>15. Policies are significantly influenced by the view of employees</td>
<td></td>
</tr>
<tr>
<td></td>
<td>16. People feel involved in main company decisions</td>
<td></td>
</tr>
</tbody>
</table>

Concepts adopted in the measurement instrument were sourced from theoretical review and then included in a set of scales that represent latent variables through their items (Chiva et al., 2007). The scale was validated through a CFA, whereas the sociometric properties of the measurement instrument were assessed in order to verify the dimensionality, reliability and validity of the scale. Dimensionality is concerned with testing that the factorial structure that should describe the latent variable is correct. This analysis is exerted through a CFA, since it enables the researcher to establish *a priori* the number of latent
variables. According to this model, OLC is a second order factor composed of the five dimensions indicated in Table 4.

Reliability measures the extent to which a measure is affected by random error. Minimum random error relates to higher consistency in the results. This was evaluated through Cronbach’s alpha coefficient for each variable, together with a reliability analysis. The results satisfied the criteria, having obtained all values higher than 0.7 (Lee, 2015). Furthermore, the ANOVA analysis was run, to confirm that the variance between responses is higher among firms than within them, which is a result supporting reliability of the construct.

Finally, the validity of the scale refers to the congruence between what the scale aims at measuring and the outcome that it produces. Content validity was ensured by congruence of the content and of the process followed to develop it with previous literature. The authors examined convergent validity via CFA, evaluating the factor loading of scale items on their hypothesised factors. Discriminant validity was tested through the analysis of the correlation table, verifying that the correlation between two constructs is significantly different from the unity value.

Subsequently, the scale was tested in South America in a knowledge-intensive service industry (Camps, Alegre & Torres, 2011). The data were collected from faculty members of Instituto Tecnologico de Costa Rica. The scale was tested running EFA, the results of which confirmed that the model solution with the best fit and best response to parsimony criteria should have had five factors, as proposed in Chiva et al. (2007). The second order factors were tested and validated with CFA. The scale was considered reliable having obtained Cronbach’s alpha coefficients and composite reliability above 0.7 in both the measurements. Thereafter, the results of the comparison between the Costa Rican index and Chiva’s et al. (2007) factors revealed reliability of the scale and the possibility of applying the same to different geographical contexts and industries.
This research on organisational learning capability and social innovation was set in the developing context of South Africa, where it was argued that social enterprises might often be interpreted as micro-enterprises working towards improving their community (Karanda & Toledano, 2012). Moreover, in this context, social enterprises could enable the development of a supply chain for the micro-entrepreneurs they work with, assuming the role of efficient intermediary and resource allocator (Sodhi & Tang, 2011). Therefore, the study was conducted adopting Chiva’s et al. (2007) scale to collect information on OLC.

Nevertheless, an EFA was run in order to test the validity of the newly adopted scale and to test whether in the particular context of South Africa the data would have suggested consideration of a different set of variables to investigate the construct of OLC among NPOs. Similarly, the process implemented by Camps, Alegre and Torres (2011), the second order factors were tested through a new CFA. The reliability of the new scale was confirmed obtaining Cronbach’s coefficients alpha above 0.7.

3.4.2 Identifying a scale to measure social innovation

Social innovation implies developing creative and sustainable ideas to solve a broad range of issues affecting society. Therefore, it could be placed on a continuum from solving people-related issues at organisational level (Freemand, 1988, as cited in Bulut, Eren & Halac, 2013), as well as improving the well-being of individuals.

Bulut et al. (2013) operationalised the construct of social innovation developing an attitude scale to measure the individual perception of social innovation. The measurement instrument was tested among a probability sample representative of the population of senior university students in Turkey, assuming their role of innovative thinker and their potential to become the social innovator of the country. The scale was tested through a preliminary pilot study that provided useful information on content validity of the questionnaire and eigenvalue scores above one extracted from the factor analysis. The researchers proceeded with
operating a varimax rotation to screen all the items that scored more than 0.45 in factor loading. Thereafter, Cronbach’s coefficient alpha above 0.7 provided support for the reliability of the scale, and only eight items out of the initial twenty-four were kept in the measurement scale, given the negative effect they were showing on the factor construct. This scale was validated in the Turkish context, but it could be particularly useful to understand the propensity to social innovation among individual NPO practitioners and staff members, social entrepreneurs and other agents working towards creating social innovation.

The organisational perspective on social innovation lies on the opposite side of the continuum. Innovation is a non-negotiable factor to ensure competitiveness and sustainability of non-profit organisations. However, limited literature was developed to provide instruments to measure such constructs among these entities (Mulgan, 2006).

Hu and Yu (2008) tested a scale composed of twelve items measuring the three factors of innovation climate, service innovation and management innovation of Chinese community medical institutions and industrial associations, which are registered as non-profit organisations. The aim of such a scale was to support NPO practitioners who wish to relate their organisational learning capability to performance, as well as to benchmark against current practices.

The scale was developed following a rigorous process suggested in previous literature; comparing the items that emerged from qualitative interviews to the ones proposed by other scholars specialised in the field of social innovation. Non-profit innovation was constructed as two-level factors, described by innovation climate, management innovation and system innovation. The fit of the three dimensions model was verified with CFA, whereas Cronbach’s alpha values ranging from 0.85 to 0.94 exceeded the threshold of 0.7, which is the required state of internal consistency of the model. The convergent validity of the model was then verified through standardised factor loadings and the significance of the T values (p<0.0001). Correlation analysis supported discriminant validity of the model.
Therefore, the scale was validated but its antecedents require to be further researched empirically and theoretically. Furthermore, the scale should be counter-validated before being applied in different contexts.

Literature emphasised the important role of NGOs and non-profit organisations addressing solutions to basic human needs (Zhang & Swanson, 2010). A special task force in the Basque Region carried out a research project to identify indicators of social innovation, in order to develop an instrument for recognising, establishing and measuring the construct. This index focuses on supporting the development of local solutions to global problems (Innobasque, 2013) by facilitating collaboration and hybridisation across sectors. The index was developed with the intent of allowing its customisation to fit different sectors, namely businesses, universities, technological centres and non-profit entities. The instrument provides a measure of the knowledge absorptive capacity of organisations. This is in an effort to portray and capture the process through which an entity identifies a social problem with its causes and effects, applies its internal patterns of knowledge to assimilate the characteristics of the problem, explores solutions and implements them. Therefore, the full index was designed combining three indices, as represented in Table 5.
### Table 5: Structure of the Regional Social Innovation Index

<table>
<thead>
<tr>
<th>Index</th>
<th>Construct</th>
<th>Dimensions</th>
</tr>
</thead>
</table>
| Potential capacity for innovation index | Capability for innovation         | 1. Knowledge  
2. Learning  
3. Internal socialisation  
4. External association  
5. Development |
| Social orientation index     | Implementation of social projects | 1. Knowledge acquisition  
2. Development of social projects  
3. Impact on social projects  
4. Governance on social projects |
| Social innovation index      | Delivery of social projects       | 1. Knowledge acquisition  
2. Development of innovative social projects  
3. Impact of innovative social projects  
4. Governance of innovative social projects |

In its original version, the index was aimed at providing a mean score that would have defined the level of each dimension for a particular construct, given the regional reality under study. However, the factorial structure of the model was validated.

Table 6 provides a comparison of the analysed social innovation measurement instruments.
Table 6: Comparison of social innovation measurement instruments

<table>
<thead>
<tr>
<th>Author</th>
<th>Focus</th>
<th>Target of the study</th>
<th>Construct</th>
<th>Dimensions</th>
<th>Scale</th>
<th>Items</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bulut, Eren, Seckin Halac, (2013)</td>
<td>Individual propensity to social innovation</td>
<td>Senior university students (Turkey)</td>
<td>Propensity to social innovation</td>
<td>Unidimensional scale</td>
<td>five-point Likert</td>
<td>8</td>
</tr>
</tbody>
</table>

This research adopted non-profit organisations as the unit of analysis, to study their capacity to develop social innovation projects, in order to fulfil their mission of creating positive societal outcomes and solving social needs. Therefore, the Regional Social Innovation Index (RESINDEX) was the most suitable instrument to adopt, given its organisational nature. The index investigated the construct among regional organisations, and it would be advisable to adopt it in other regions in order to obtain comparable results. The sample of this research investigates organisations that are present across South Africa. Therefore, in the nature peculiar to the South African political and social environment, it provided support to the choice of such a regional index. Subsequently, the RESINDEX was selected to measure the capability to develop social innovation projects among hybrid social enterprises in South Africa.

Nevertheless, EFA was run in order to test whether a better factor loading could have been obtained when adopting this regional index in the African context, out of the environment where it was developed. Therefore, a new set of factors was identified which found support in previous literature. Thereafter, the reliability of the new potential scale was tested and verified by obtaining Cronbach’s coefficients alpha bigger then 0.7.
3.4.3 The research instrument adopted

Spector, (1992, as cited in Chiva et al. 2007), argued that it might be useful to adopt the content and items of other existing scales in order to develop a new one. The research adopted Chiva’s et al. (2007) scale for OLC and RESINDEX for social innovation.

A pilot analysis was conducted before reaching out to the sample of the study. The survey was distributed to three South African NPOs operating in Gauteng and Limpopo provinces. Following the experience reported in Chiva and Alegre (2009), which involved the management team of OXFAM in Pretoria, the project managers of EcoChildren Training and the social entrepreneurs from Willow Feather. The pilot study aimed to test the scale for validity, and obtain real-time feedback on the content of the questions and the structure of the questionnaire itself.

The scale was imported from the European context and it was previously applied to the SME environment. Therefore, the instrument was submitted to one representative top manager of each of the sampled organisation, requesting for a qualitative review of the wording, to ensure that respondents would easily understand all the items. As a result, almost all the wording of the items needed to be edited. Therefore, the scale needed to be tested again with CFA to obtain information on its construct validity.

Furthermore, in order to avoid confusion, the RESINDEX was transformed into a seven-point Likert scale. Finally, all the items were formulated in an identical direction, however the underlying dimensions were not shown and the initial disclaimer to the questionnaire cautioned the respondents about carefree box ticking (Visser, 2009).

The actual instrument adopted for the research is duplicated in Appendix A. It was composed of section of, closed-ended questions answered on a seven-point Likert scale and a section for demographics (Appendix B).
The first portion of the questionnaire comprises a seven-point Likert scale of sixteen items. The multi-variable section intends to assess OLC by measuring the five facilitating factors identified by Chiva and Alegre (2009). The manifest variables were operationalised according to previous literature. Therefore, experimentation is the extent to which new ideas and suggestions are accepted and tested (I1, I4); risk taking represents the tolerance for ambiguity, uncertainty and errors (I2, I6, I8); interaction with the external environment defines the scope of the relations nurtured by the environment where the organisation operates (I3, I5, I7, I10); dialogue refers to the collective inquiry into processes and assumptions of routine activities (I9, I11, I13, I15); participative decision-making is defined as the level of influence assigned to employees along the decision-making process (I12, I14, I16).

Moreover, eleven items measure capability for social innovation with a seven-point Likert scale and a closed categorical question. The items measure access to knowledge (I17, I18), project development (I19, I20, I21), impact (I22, I23, I24) and governance (I25, I26, I27) as variables influencing the capability of an organisation to enact social innovation (Innobasque, 2013). The original instrument was structured on a 0-100 scale. However, in order to be consistent with the other scale adopted, and to avoid creating confusion among the respondents, its items were transformed into seven-point Likert scale. Moreover, one of the three items measuring access to knowledge in the original scale was removed, because the question would have required a categorical answer (Yes / No), which would have not been consistent with the rest of the scale. Thereafter, it was necessary to test its construct validity and reliability through CFA.

The final section of the survey included six closed questions to obtain an overview of the respondent years of experience, educational background, age, gender, and employment status. The indicators were developed on the basis of the demographics investigated by the GEM (Herrington & Kew, 2014).

Table 7 summarises the structure of the questionnaire, allocating the items to their construct and its dimensions.
### Table 7: Structure of the questionnaire

<table>
<thead>
<tr>
<th>Items</th>
<th>Construct</th>
<th>Dimension</th>
</tr>
</thead>
<tbody>
<tr>
<td>I1, I4</td>
<td>OLC</td>
<td>Experimentation</td>
</tr>
<tr>
<td>I2, I6, I8</td>
<td>OLC</td>
<td>Risk Taking</td>
</tr>
<tr>
<td>I3, I5, I7, I10</td>
<td>OLC</td>
<td>Interaction with environment</td>
</tr>
<tr>
<td>I9, I11, I13, I15</td>
<td>OLC</td>
<td>Organisational Dialogue</td>
</tr>
<tr>
<td>I12, I14, I16</td>
<td>OLC</td>
<td>Participative Decision-making</td>
</tr>
<tr>
<td>I17, I18</td>
<td>Social Innovation</td>
<td>Access to knowledge</td>
</tr>
<tr>
<td>I19, I20, I21</td>
<td>Social Innovation</td>
<td>Project Development</td>
</tr>
<tr>
<td>I22, I23, I24</td>
<td>Social Innovation</td>
<td>Impact</td>
</tr>
<tr>
<td>I25, I26, I27</td>
<td>Social Innovation</td>
<td>Governance</td>
</tr>
<tr>
<td>I28, I29, I30, I31</td>
<td>Descriptive &amp; control variable</td>
<td>Tenure, Gender, Level of education, Position</td>
</tr>
</tbody>
</table>

The questionnaire was preceded by an ethical declaration of confidentiality and anonymity to ensure the protection of the privacy of the respondent (Appendix B).

### 3.4.4 Control for common method bias

Scholars did not come to a common understanding of the effects of tendencies of survey participants to provide systematic responses, which do not depend on the content of the questionnaire itself. Literature refers to this phenomenon as response bias (Tellis & Chandrasekaran, 2010).

Another potential issue affecting behavioural research is common method variance, whereas some authors discredited the real effect of such bias on research results. Nevertheless, the conditions under which the data were collected influence the results; particularly when all the data for all the variables are collected from the same person, through the same instrument (Podsakoff, MacKenzie, Lee & Podsakoff, 2003). Following the example of Alegre et al. (2006), procedural remedies adopted in this study included protecting the anonymity of the respondents, which should have also reduced the apprehension for evaluation on the basis of the responses provided; improving the scale items after preliminary testing and methodologically separating the measurement adopted.
3.5 Procedure for data collection

The questionnaire was available in its online version on Qualtrics (2014). As a matter of practicality, the questionnaire was circulated virtually via email from the head offices of the organisations involved, which allowed the researcher to maintain control over the environment and obtain a higher response rate. Upon specific request, one hundred and fifty (150) hard copies of the survey were distributed to Khulisa head office, from where they had delivered them to their project managers in three provincial offices in Kwazulu-Natal, one office in the Western Cape and five offices in Gauteng. A pre-test of the study was run with one representative of each organisation involved who provided qualitative feedback on the wording used for the items (Co, 2003, as cited in Cooper & Schindler, 2011).

To avoid the Hawthorne effect, none of the respondents were prepared in advance on the study and its expected outcome. An incentive in terms of access to free training was proposed to the organisations participating in the study, to increase the probability of obtaining a good response rate (Cooper & Schindler, 2011).

The data were collected between the middle of October and the end of November 2014.

3.6 Analysis of the model: Structural Equation Modelling (SEM)

The theoretical model of the study investigated the relations among the constructs of organisational learning capability and social innovation, by specifying their respective factor composition and measurement scales. This model was developed a priori, and its specification should have been tested for support through empirical data gathered. However, literature contextualises different approaches to model testing. These include model generation, whereby a model might be modified if the findings from empirical data do not fit its structure; multiple model alternatives that are selected, or not, based on
empirical results; and model confirmation, which looks at the fit of data to the theoretical model developed (Lei & Wu, 2007).

This research was set in the context of model generation. The dimensionality of the construct analysed was investigated through EFA in order to explore whether a different set of factors could have provided a more accurate description of the construct under study (Lee, 2015). Thereafter, they were compared to a pre-existing theoretically and empirically validated model through CFA. The new model was generated based on the results of CFA, which showed that the empirically derived structure was superior to the theoretical one initially proposed.

Thereafter, the structure of the empirically derived model was tested applying SEM. This is a statistical extension of general linear modelling procedures, such as multiple regression analysis (Lei & Wu, 2007). The major advantages of adopting this technique include the possibility of simultaneously estimating multiple and interrelated dependencies; the inclusion or latent variables that were not explicitly observed and to account for measurement error in the estimation process. This was possible because the ideal sample size-to-parameters ratio of 20:1 was fulfilled, with the sample being comprised of 135 cases. However, SEM is a large sample technique. According to Kline (2011), the sample size required should be larger than 200, but this is dependent on the complexity of the model, the estimation method used and the distribution of the manifest variables.

3.7 Evaluation of the model: Characteristics of measurement scales

The data were analysed using SAS 9.3 software, as it allows performing descriptive statistical analysis and multivariate analysis, including SEM.

Preliminarily to SEM, the data were cleaned to avoid influential outliers and missing data, which left 135 valid and complete responses.
The psychometric properties of scales need testing before running SEM (Lee, 2015). Therefore, the measurement adequacy of the scales of each construct under investigation were tested separately, using a composite reliability measure, EFA and then CFA, comparing theoretically and empirically based models.

### 3.7.1 Reliability of the scales

The scales applied refer to previous studies, and their reliability needed to be confirmed before proceeding with the analysis. Reliability scores measure the degree of freedom from measurement error. Therefore, reliability contributes towards the measuring of the consistency of results and their validity (Cooper & Schindler, 2011). When items consistently measure the same construct, they are highly correlated with each other (Lee, 2015).

Cronbach’s coefficient alpha and composite reliability are deemed acceptable when above 0.7 (Camps, Alegre & Torres, 2011; Chiva & Alegre, 2007), 0.8 would be considered good and above 0.9 is an excellent score. Nevertheless, certain scholars accept alpha coefficients higher than 0.6 (Lee, 2015). This result is usually related to the number of items in the scale, whereas scores below 0.5 could not be accepted.

Additionally, when tested in different contexts, the reliability of the measurement scale should not be tested only via Cronbach’s alpha but also by checking for composite reliability (Hair et al., 1998, as cited in Chiva et al., 2007). Composite reliability consists of Cronbach’s coefficient alpha and the average inter-item correlations, which describe the correlation of each item with the sum of the remaining ones (Cooper & Schindler, 2011). Therefore, internal consistency reliability was tested for the scales of the independent variable, OLC, and all its underlying theoretically derived and empirically derived subscales; as well as for the scale of the dependent variable, social innovation. The advantage of adopting the average inter-item correlation is that it allowed to compare reliability of the subscales, even if they differed in number of items. Previous literature recommends that this average should not exceed a score of 0.3. Standardised
alpha coefficient was not included in the report of results, because all the items were scaled on same Likert-type.

The results of Cronbach’s coefficient alpha obtained from the pilot were low for the scales measuring individual variables. However, the limited size of the sample approached for the pilot represents a bias to the process and a limitation in interpreting the data.

3.7.2 Validity of the scales of the model

The broad concept of construct validity serves to identify the capacity of a scale to measure the construct they aim to measure. However, several measures for construct validity were proposed in measurement related research.

Since the research adopted a multi-dimensional scale to measure different latent variables, it is necessary to test convergent and discriminant validity. These measures evaluate scores of items against each other, and the extent to which each dimension considered, measured a different concept. This research investigated construct validity of the scales adopting EFA and CFA statistical techniques. EFA was used to identify the ideal number of factors underlying a measured construct and its structure (Suhr, 2006), without necessarily imposing one a priori. CFA, instead, provides information on the existence and the fit of a hypothesised relation between observed variables and underlying constructs (Lee, 2015).

In this research, the results of EFA were considered to test construct validity, and were verified by CFA, since the sample size achieved in this research allowed the investigation all 16 items measuring OLC simultaneously as well as the 11 items of social innovation. Thereafter, a second order factor structure was tested for OLC and for social innovation through a higher order CFA. Thus, this statistical method was then performed on the subscale score, instead of directly testing the items scores, in order to establish construct validity of the subscales for the theoretically and empirically developed models. The results were judged based on the inter-correlation of the variable and the factor.
EFA adopted the principal axis factor, whereas the final factor loading was obtained allowing factors to be correlated, through Harris Kaiser Case II rotation. The results obtained are presented in Chapter 4 and are reported by presenting the scores for factor loading. This explains the correlation of the factor and the variable. Therefore, a loading should exceed 0.7 in order to explain more than 50 percent of the variable variance. Results ranging between 0.3 and 0.4 explain less than 20 percent of the variance but are considered to meet the minimal level to interpret the structure; whereas factor loading higher than 0.5 could be considered practically significant (Lee, 2015).

3.7.3 CFA test for factor structure

The theorised model of the study was tested separating the construct of the independent variable, OLC, and the dependent variable, social innovation. Each of them was described through a structural equation diagram. The hypotheses and the empirically derived propositions were also tested adopting SEM, and the results were reported on the path diagram. SEM was preferred to linear regression analysis, because it allowed the simultaneous comparison of insights on the characteristics and dynamics of the hypothesised relations in term of linear, curvilinear and cubic models.

The data analysis adopted the following absolute fit indices, which represent the accuracy of representation of the hypothesised model by the data collected (Lee, 2015):

Global fit statistics:

- **Chi-square statistic** \( (x^2) \): This is the basic measure of the similarity between the actual and predicted covariance. It is described by a p-value, which highlights the significance of the difference. Therefore, a very low p-value is technically bad. However, this index is sensitive to sample size, therefore cannot be evaluated alone;

- **\( x^2/df \)**: Represents the degree of freedom of the variable;
• **Standardised root mean square residual (SRMR):** This is the actual standardised measure of the variance between predicted and actual covariance. SRMR <.05 represents a very good fit and <.08 is still acceptable;

• **Root Mean Square Error Approximation (RMSEA):** This measure is based on the Chi-square, but as a parsimony index, it penalises models with several coefficients and it is expressed in a 90 percent confidence interval. RMSEA <.05 with upper CI<.08 represent a very good fit, and RMSEA <.08 with a upper CI <.10 is acceptable; and

• **Bentler’s Comparative Fit index (CFI) and Non-normed fit index (NNFI):** These provide a fit index between the model and an ideal model where none of the variable investigated are allowed to correlate.

**Local fit statistics:**

• **Residuals (standardised):** Residual data might indicate part of the model that needs to be improved. Standardised residuals higher than three are considered large, whereas residuals scoring around two should be further investigated;

• **$R^2$ statistics:** As in regression analysis, this statistic explains the variance of endogenous variables;

• **Lagrange multipliers:** It is a modification statistic, providing suggestions for the effect and the significance of adding new path to the model; and

• **Wald statistics:** It is a measure of the effect on the global fit of removing a coefficient, for instance a causal path between to variables.

**Comparative fit indices:**

• Akaike’s information criterion (AIC);

• Bozdogan CAIC; and

• Schwarz Bayesian Criterion (SBC).
3.7.4 Tests of assumption of score distribution

In order to perform SEM, the data needs to be normally distributed. The test for this assumption was conducted by analysing the measures of skewness, which indicates the symmetry of the distribution and the kurtosis, which relates to the extent to which the curve has a peak.

Positive skew measures would indicate that the mean of the scores is higher than the median, whereas negative values indicate that the few negative scores shift the mean below the median (Cooper & Schindler, 2011). In order to judge the values and their normality, these indices are standardised measures, whereby a skew index, above 3 (SI >3), should be considered extremely high, whereas kurtosis from eight to above 20 (8 < KI < 20) indicates extreme Kurtosis (Kline, 2011). The results obtained supported the assumption of normality of the distribution.

3.8 Evaluation of the model: structural aspects of the model

It was the intention to test simultaneously the measurement and structural aspects of the model through SEM. The results of the factor analysis led to the development of a new model for this study.

The new constructs derived for the measurement scales were named according to dimensions of the main constructs that would have found support in previous literature. In other instances, the results of factor analysis suggested that the factor would have described the initially intended variable, however based on a different factor loading.

The conceptual model of the study is presented in Figure 11.
Figure 11: Conceptual research model

The empirically derived model is presented in Figure 12. In depth explanation of the names selected for the new factors obtained, the loading supporting this new structure and the results obtained to test the propositions are reported in Chapter 4.

Figure 12: Empirically derived conceptual model of the study

3.8.1 Structural equation model test

A common rule-of-thumb that emerged from previous studies of OLC and innovativeness proposed that an acceptable threshold to apply SEM would be 100 subjects (Chiva et al., 2007; Chiva & Alegre, 2009; Jaskyte & Dressler,
Therefore, SEM could have been processed and was based on linear and non-linear equations (Lee, 2015). These techniques allow the generation of fit statistics and slopes (standardised and non-standardised) of several variables.

In the model, organisational learning capability is considered an exogenous variable, as it is only considered a cause of other variable, and it is not caused by any other variable in the model, whereas it is allowed to co-vary (Lee, 2015). Covariance between the variables is represented in the factor model by connecting the variables with a double-headed curved arrow, to distinguish causality, which is represented with a straight arrow.

Assumptions of the SEM include (Lee, 2015):

- Causality between the measured variables (i.e. risk taking) and the latent variable (i.e. OLC) is assumed and formalised in a linear relation, even if this is almost never proven;
- As per regression studies, the model empirically investigated the need to report a good fit to the theoretical hypothesised pattern of data;
- The association between the variable is expressed by standardised and non-standardised regression coefficients; and
- Endogenous variables are caused, at least partially, by factors that are not included in the model. This is called error. The variance of the exogenous variable, which is not explained in the model is called disturbance.

The analysis of results of SEM involved a primary analysis of the global model fit through absolute, parsimony and incremental indices.

Thereafter, the analysis of local fit statistics was conducted, to analyse the residuals and $R^2$. The analysis of residuals might indicate that some of the existing paths are not working or that a non-existent path might improve the potential for explanation of the model. Lagrange multipliers are the indication of the value added to the model by including a path coefficient, which was not previously included. Contrarily, the Wald statistics measure the value of equalling to zero a coefficient of the model, therefore removing it.
The propositions tested as deriving inferences from the results of the structural equation model were:

Proposition 1:

There is a positive relationship between South African NPOs’ knowledge conversion and their capability for increased social innovation.

Hypothesis 1:

There is a positive relationship between South African NPOs’ risk taking and their capability for increased social innovation.

Hypothesis 2:

There is a positive relationship between South African NPOs’ organisational dialogue and their capability for increased social innovation.

Hypothesis 3:

There is a positive relationship between South African NPOs’ participative decision-making and their capability for increased social innovation.

The results obtained are presented in Chapter 4, with the support of tables and figures representing the model of the study, showing relevant paths. Interestingly, they supported the adoption of a parabolic curve relation for one of the variables and a cubic relation for another, as reported in the next chapter.

3.9 Limitations of the study

Despite the effort to validate the study, certain limitations might have remained, which has led to opportunities for further research.

A non-randomised purposive sample was selected, which limits the representativeness of the result (Camps, Alegre & Torres, 2011). The sample size was acceptable for the scope of this research, and in relation to the structure of the model of the study; however, SEM is sensitive to large sample sizes and a
minimum sample of 200 units is advisable. Therefore, the results of the study cannot be generalised to the whole population of NPOs and hybrid social enterprises in South Africa.

The study was conducted through a cross-sectional analysis. However, learning is based on time and resources (Tohidi & Jabbari, 2012a), innovation is understood as a process (Degelsegger & Kesselring, 2012) that may require time and failure to produce its outcome, and many of the NPOs involved may have just embarked on the change process. Therefore, the scope of this research was limited to evaluating the capability of the organisation to enact social innovation projects, and did not provide information on the outcome of the initiative itself. This might be better understood through longitudinal studies (Cooper & Schindler, 2011).

With regard to the instrument adopted, self-administered surveys might have limited the understanding of the respondents with regard to the explicit content of the items contained in the questionnaire, and to the relevance of each individual’s contribution to the process of data collection (Cooper & Schindler, 2011). The prevention of this error was attempted by including an introduction to the questionnaire to detail the aim of the research, which was addressed directly to the respondent.

Another potential limitation of this study might have been acquiescence, which was addressed by ensuring the anonymity of all the respondents.

3.10 Validity and reliability of research

Validity is the extent to which the research truly measures what it was intended to or how truthful the research results are (Joppe, 2000 as cited in Golafshani, 2003). Moreover, in quantitative research, validity is referred to as construct validity (Wainer & Braun, 1998 as cited in Golafshani, 2003), whereby the construct is the initial notion, question or hypothesis that determines which data will be gathered. The following paragraphs contextualise the results of the research, whereas information on the external validity of the study are provided
in Section 4.3.3, in relation to the selection of population and sampling frame for the study.

### 3.10.1 Internal validity

Internal validity relates to the existence of a causal relation between a phenomenon and its underlying effects (Larsen, 2013).

During the preliminary test of the instrument, the managers of the organisations involved advised to keep the questionnaire short, to prevent respondents becoming uninterested or tired, therefore avoiding the effect of results with missing data.

The learning effect was not explicitly prevented. However, the respondents who were engaged through hard copies of the questionnaire had only received it once, and were asked to complete it in the same circumstance, to prevent them going back to it at a later stage. With regard to the online survey, the timeframe to complete it was 45 days, and respondents were approached via a direct email from their head-office, requesting to fill in the questionnaire and do it only once.

Content validity was tested by adopting scales validated in literature, and by conducting a preliminary analysis of the questionnaire with representatives of the organisations targeted.

In addition, the research process abided by ethic rules, ensuring that none of the respondents could have suffered physical harm, embarrassment, pain or loss of privacy. Moreover, the introductory message to the questionnaire presented the benefits to the individual and his or her organisation, together with a presentation of the confidentiality agreement and a request for informed consent.

The constructs were built on the basis of entrepreneurship theory and previous research, therefore they were expected to satisfy correlation, covariance and non-bias requirements (Cooper & Schindler, 2011). The construct validity was investigated through the inter-correlation matrix of the items, as presented in Chapter 4. With this matrix it was verified that the items that were expected to
correlate with each other, were significantly inter-correlated, whereas those items that should not relate theoretically, reflect the same (Lee, 2015).

Furthermore, CFA provided support to internal validity of the constructs, as explained in the following chapter with the presentation of results.

### 3.10.2 Reliability of the research

“Reliability of the research is the extent to which the results are consistent over time and an accurate representation of the total population under study” (Joppe, 2000, as cited in Golafshani, 2003, p. 598). Subsequently, replicability and repeatability are outcomes of reliability, which ensures the consistency of the results over a period. The research methodology was created following indications on quantitative research and procedures of SEM. The questionnaire was aimed at collecting data to measure statistical effects, following a process that is reported thoroughly in order to facilitate the replicability of this study for any future research (Larsen, 2013).
CHAPTER 4. PRESENTATION OF RESULTS

4.1 Introduction

This chapter discusses the results of the empirical investigation of elements of organisational learning capability and their effect on social innovation, conducted according to the methodology outlined in Chapter 3. It includes a flow of presentation and discussion of the demographic profiles of the respondents (4.2), followed by the evaluation of the measurement aspects of the model. These involved reliability measures of the theoretically derived measurement scales (4.3), subsequently validity of the measures was investigated through three sets of factor analyses (including EFA (4.4.1.a) and CFA (4.4.2b,c)) were performed on all the items of the sub-scales and scales adopted, including a second-order factor analysis aimed at investigating the validity of the OLC construct. The same process was followed to test the construct validity of the measurement scale for social innovation (4.4.2). Thereafter, the distribution of the data was analysed, in order to confirm the assumptions required by SEM (4.5). Finally, the structural relations of the model were obtained (4.6) and the conclusions were drawn based on the results from the tests of the hypotheses (4.7) to summarise the findings.

The evaluation of the model implied several stages and led to the development of new measurement scales, and thus to reframe the conceptual model of the study. In view of this, the underlying logic of the results is exposed in this introductory section.

4.1.1 Reliability of the measurement scale

In section 4.2, composite reliability of the theoretically derived measurement scale was investigated as a preliminary test of their validity.
4.1.2 Validity of the measurement scale

Both the measurement scales were tested via EFA. This technique served to derive combinations of items that should have tested the same construct and compared the results to the factor loading expected based on the literature. However, when unexpected combinations of items emerged the researcher established new constructs, which, regarding the worded content of an item, could have reflected variables investigated through other measurement scales already analysed in the literature. Therefore, new measurement scales were formed and referred to as the empirically derived scales, which became the potential substitute for the theoretically derived ones.

Thereafter, in the subsequent paragraphs of the section, the theoretically and empirically derived scales were investigated through CFA, in order to compare the results for model fit, which should be considered a good indicator of their construct validity.

The analysis of the psychometric properties of the scale was succeeded by the assessment of the score distributions of the scale, which is the next step in preparing the data for model analysis.

4.1.3 Normality assumptions

In Section 4.5, univariate descriptives of the variables of the adopted measurement scales statistics were examined, in order to test the need for adjustments on the data in order to fulfil normality assumptions, which are preliminary requirements to running SEM.

4.1.4 SEM for hypotheses testing

As presented in Section 3.8, the empirical analysis of the measurement scales led to hypothesising a novel model to investigate the relation between elements of organisational learning capability and social innovation of hybrid social enterprises in South Africa. The model was tested by means of SEM, which
generated results for potential linear, curvilinear and cubic relations between the independent and dependent variables of the study. The results indicated support to the newly created research propositions.

4.2 Demographic information of the respondents

The final sample size of the participants to the survey is composed of 141 respondents; however, six of them left their questionnaire significantly incomplete and only 135 respondents remained in the sample. First, organisational engagement in the study was reported. Thereafter, the total sample was described in terms of the education level achieved, the organisational tenure and role of individuals in the organisation.

4.2.1 Organisations participating in the study

Out of the sample of 135 practitioners and social entrepreneurs who participated in the study, 40 percent worked in KHULISA Social Solutions across the provinces of Gauteng, Kwazulu Natal and the Western Cape. Of the respondents, 22 percent belonged to SOS Children's Villages in the provinces of

![Figure 13: Frequency distribution of responses from organisations](image)
Gauteng, Limpopo, Mpumalanga, North West Province, Western Cape and Kwazulu Natal, while the remaining 38 percent of respondents are young leaders of AIESEC in South Africa, studying in different universities of the country, representatives of the same regions (Figure 13).

### 4.2.2 Description of the respondents

The demographics of the respondents were collected to investigate the assumption presented in literature with regard to the relation between the expected participation rate to the survey and the level of education (Cooper & Schindler, 2011). Accordingly, individuals who attained a higher level of education are more likely to start participating and reiterate their involvement in this typology of studies.

Furthermore, another assumption related to expected levels of education attained by entrepreneurs in South Africa, derived from the estimates reported in the GEM (Herrington & Kew, 2014). According to the report, only 11.3 percent of the total entrepreneur population in South Africa attained some forms of post-secondary education, 43.2 percent of entrepreneurs in South Africa hold a secondary degree, whereas 45 percent of them were enrolled in secondary education but did not matriculate.

The responses obtained show that 44 percent of the respondents concluded their formal education at Matric level, whereas a compiled 52 percent of respondents attained post-secondary education, with a 30 percent of the total who concluded undergraduate studies, 18 percent who achieved honours degree and four percent who attained post-graduate education. Nevertheless, as indicated in the previous chapter of the report, these statistics might not be representative of the full population of NPO workers and social entrepreneurs in the country. Since all the respondents belonging to AIESEC are by definition university students who mostly engage with the organisation on a voluntary basis and develop their career path in it through constant selection processes. The results are represented graphically in Figure 14.
This is incoherent with the data presented in the Greater Capital (2013) Report and in Hart et al. (2014) on the status of NPOs in South Africa, disputing that the funding constraints of NPOs limit their ability to attract and retain highly skilled individuals, who are more likely to choose to work for corporates where they would enjoy a broader set of benefits.

Newth and Woods (2014) noted that social entrepreneurial initiatives face organisational inertia and path dependency when implemented in existing non-profit entities as well as corporate organisations. Therefore, the organisational tenure of the participants was investigated, to analyse whether hybrid social enterprises evolve capitalising on the skills of experienced workers or attracting professionals who are new to the organisational context. The results of the questionnaire reported that the majority of the respondents (42 percent) had worked in non-profit organisations for less than twelve months and 26 percent were relatively experienced, having worked in the sector for a period of one to three years. Eight percent were employed for less than five years, whereas 24 percent of the total sample worked had experience of more than six years in the sector, as presented in Figure 15.
The ANOVA test conducted for this variable did not suggest a significant variance of the results for the relation between social innovation among respondents with different levels of organisational tenure, and levels of education (Appendix E).

Tandon (2014) proposed that learning, and therefore innovation, happens at an organisational level when different departments interact with each other. Furthermore, the tacit knowledge held by organisations is higher when the entity attracts different profiles of individuals who are closely connected to the community. A common solution adopted by NPOs to achieve such organisational settings involves attracting professionals as well as volunteers to collaborate towards achieving the mission of the entity (Hull & Lio, 2007).

The sample of the study reflects such theories, as represented in Figure 16. Of the respondents, 39 percent were field workers, directly involved with the target community and 29 percent were project managers, liaising with head office and local branches in the delivery of social projects and initiatives. Nine percent were
social entrepreneurs, directly involved in the delivery of products or services source of income streams for the organisation seven percent were external consultants, usually hired on a temporary contract basis and 16 percent of the respondents were senior managers focused on the development of new strategies and the governance of the organisation.

Figure 16: Frequency of job role and position

4.3 Psychometric properties of measurement scales of the model

The psychometric properties of the scales adopted to measure the independent and the dependent variables of the model are presented respectively in Sections 4.4.1 and 4.4.2.

4.3.1 Reliability of the theoretically derived scales

The theoretically derived measurement model for OLC is depicted in Figure 17.
Figure 17: The theoretically derived measurement scale of OLC

Cronbach’s coefficient alpha was performed in order to test internal consistency reliability of the theoretically derived scale. Table 8 highlights the Cronbach’s alpha values of the theoretically derived measures of the of the construct OLC are adequate and above the 0.7 cut-off level for internal consistency (Lee, 2015), with the exception of interaction with the environment which scored 0.61. However, Prince and Mueller (1986, as cited in Wang & Ahmed, 2004), deemed Cronbach’s alpha results higher than 0.60 acceptable.

The overall alpha value of the organisational learning capability, represented by 16 items, is 0.91, therefore the reliability of the scale is supported.

Furthermore, item inter-correlation was adopted to evaluate the construct validity. Accordingly, items belonging to the same factors should have correlated more than items loading highly on different factors, as detailed in Table 30 in Appendix C. Nevertheless, the average inter-item correlation of the whole scale equals 0.66, which is an indication of a low construct validity of the measurement scale.
Table 8: Results of the reliability and validity test for OLC theoretically derived scale

<table>
<thead>
<tr>
<th>Components</th>
<th>Items</th>
<th>Item-total correlation</th>
<th>Alpha if item is deleted</th>
<th>Alpha</th>
<th>Average inter-items correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimentation</td>
<td>EXP1</td>
<td>.78</td>
<td>.00</td>
<td>.88</td>
<td>.78</td>
</tr>
<tr>
<td></td>
<td>EXP2</td>
<td>.78</td>
<td>.00</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Risk Taking</td>
<td>RT1</td>
<td>.59</td>
<td>.66</td>
<td>.75</td>
<td>.59</td>
</tr>
<tr>
<td></td>
<td>RT2</td>
<td>.69</td>
<td>.54</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>RT3</td>
<td>.47</td>
<td>.79</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Interaction with environment</td>
<td>ENV1</td>
<td>.38</td>
<td>.54</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ENV2</td>
<td>.48</td>
<td>.48</td>
<td>.61</td>
<td>.52</td>
</tr>
<tr>
<td></td>
<td>ENV3</td>
<td>.40</td>
<td>.54</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>ENV4</td>
<td>.33</td>
<td>.59</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Organisational Dialogue</td>
<td>DIAL1</td>
<td>.56</td>
<td>.67</td>
<td>.75</td>
<td>.72</td>
</tr>
<tr>
<td></td>
<td>DIAL2</td>
<td>.52</td>
<td>.70</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>DIAL3</td>
<td>.58</td>
<td>.67</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>DIAL4</td>
<td>.50</td>
<td>.71</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Participative Decision-making</td>
<td>PART1</td>
<td>.59</td>
<td>.84</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>PART2</td>
<td>.75</td>
<td>.69</td>
<td>.83</td>
<td>.68</td>
</tr>
<tr>
<td></td>
<td>PART3</td>
<td>.71</td>
<td>.73</td>
<td>.91</td>
<td>.66</td>
</tr>
<tr>
<td>OLC</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The theoretically derived measurement of social innovation is depicted in Figure 18.

Figure 18: Theoretically derived social innovation measurement
Table 9 reports the results of composite reliability analysis conducted on the theoretically derived scale for social innovation. The Cronbach’s alpha of the constructs ranges between 0.66 and 0.80, providing evidence of potentially limited reliability. This is confirmed by scores of average inter-items correlation that are all below 0.70. These are clear indications that the scale is generally not reliable.

**Table 9: Results of reliability test for SI scale**

<table>
<thead>
<tr>
<th>Components</th>
<th>Items</th>
<th>Item-total correlation</th>
<th>Alpha if item is deleted</th>
<th>Alpha of components</th>
<th>Average inter-item correlation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Access to Knowledge</td>
<td>KNOW1</td>
<td>.64</td>
<td>.00</td>
<td>.78</td>
<td>.64</td>
</tr>
<tr>
<td></td>
<td>KNOW2</td>
<td>.64</td>
<td>.00</td>
<td>.78</td>
<td></td>
</tr>
<tr>
<td>Development</td>
<td>DEV1</td>
<td>.48</td>
<td>.59</td>
<td>.68</td>
<td>.49</td>
</tr>
<tr>
<td></td>
<td>DEV2</td>
<td>.52</td>
<td>.55</td>
<td>.68</td>
<td></td>
</tr>
<tr>
<td></td>
<td>DEV3</td>
<td>.47</td>
<td>.61</td>
<td>.68</td>
<td></td>
</tr>
<tr>
<td>Impact</td>
<td>IMP1</td>
<td>.65</td>
<td>.71</td>
<td>.80</td>
<td>.64</td>
</tr>
<tr>
<td></td>
<td>IMP2</td>
<td>.70</td>
<td>.66</td>
<td>.80</td>
<td></td>
</tr>
<tr>
<td></td>
<td>IMP3</td>
<td>.57</td>
<td>.79</td>
<td>.80</td>
<td></td>
</tr>
<tr>
<td>Governance</td>
<td>GOV1</td>
<td>.42</td>
<td>.62</td>
<td>.66</td>
<td>.47</td>
</tr>
<tr>
<td></td>
<td>GOV2</td>
<td>.51</td>
<td>.50</td>
<td>.66</td>
<td></td>
</tr>
<tr>
<td></td>
<td>GOV3</td>
<td>.47</td>
<td>.56</td>
<td>.66</td>
<td></td>
</tr>
</tbody>
</table>

**4.4 Validity of the scales**

EFA served to investigate the degree to which empirically derived combinations of items would have differed from the theoretical expectation. Thereafter, CFA was conducted to the original and to the empirically derived scale to test model fit.

**4.4.1 Factor analysis of OLC constructs**

**OLC EFA**

Initially the adequacy of the inter-correlation matrix was checked, adopting the Bartlett test of sphericity, whereas the sampling adequacy was tested through the Kaiser-Meyer-Olkin (KMO). As presented in Table 10, the results were
significant and the KMO value of 0.88 provided support for the adequacy of the factor analysis.

Table 10: Indices of adequacy of EFA

<table>
<thead>
<tr>
<th>Kaiser-Meyer-Olkin sampling adequacy</th>
<th>KMO = .88</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bartlett’s test of approximate sphericity</td>
<td>( \chi^2 = 162.09 )</td>
</tr>
<tr>
<td></td>
<td>DF = 73</td>
</tr>
<tr>
<td></td>
<td>Sig. p&lt;0.001</td>
</tr>
</tbody>
</table>

In order to calculate the factor, principal axis factoring method was chosen with Harris Kaiser Case II rotation, because it allows underlying factors to correlate (Lee, 2015). Based on previous literature (Camps, Alegre & Torres, 2011; Chiva & Alegre, 2007), five factors were expected to underlie the items measured, and subsequently to load on a second order factor describing the construct of organisational learning capability. The scree plot (Figure 19) suggested the presence of three factors scoring Eigenvalues greater than one and explaining a cumulative 96 percent of the model, whereas four factors could have explained a cumulative 100 percent of its variance, whereby the first factor would have explained a significant 80 percent (Table 11).

Figure 19: Scree plot illustrating the number of Eigenvalues and value of factors
Table 11: Eigenvalues of OLC factors

<table>
<thead>
<tr>
<th></th>
<th>Eigenvalue</th>
<th>Proportion</th>
<th>Cumulative</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>15.38</td>
<td>80%</td>
<td>80%</td>
</tr>
<tr>
<td>2</td>
<td>1.71</td>
<td>9%</td>
<td>89%</td>
</tr>
<tr>
<td>3</td>
<td>1.26</td>
<td>7%</td>
<td>96%</td>
</tr>
<tr>
<td>4</td>
<td>.85</td>
<td>4%</td>
<td>100%</td>
</tr>
<tr>
<td>5</td>
<td>.72</td>
<td>4%</td>
<td>104%</td>
</tr>
</tbody>
</table>

Nevertheless, the analysis extended to five factors, to evaluate the fit of the initial model of the study, composed of such a number of factors (Appendix G, Table 37). Therefore, the alternative models were evaluated comparing the standardised regression coefficient of the rotated factor patterns. When considering the results obtained with three and five factors, there were problematic items that had a low correlation (lower than 0.40) with more than one factor, and no other significant correlations; whereas, the four factors solutions provided better factor loading (Table 12).

Table 12: Standardised regression coefficients of the rotated factors patterns

<table>
<thead>
<tr>
<th></th>
<th>Factor 1</th>
<th>Factor 2</th>
<th>Factor 3</th>
<th>Factor 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXP1</td>
<td>.88</td>
<td>- .05</td>
<td>- .11</td>
<td>.18</td>
</tr>
<tr>
<td>RT1</td>
<td>.71</td>
<td>.15</td>
<td>.19</td>
<td>- .33</td>
</tr>
<tr>
<td>EXP2</td>
<td>.61</td>
<td>- .04</td>
<td>.01</td>
<td>.36</td>
</tr>
<tr>
<td>RT2</td>
<td>.60</td>
<td>.07</td>
<td>.31</td>
<td>- .16</td>
</tr>
<tr>
<td>DIAL1</td>
<td>.45</td>
<td>.36</td>
<td>- .24</td>
<td>.21</td>
</tr>
<tr>
<td>ENV1</td>
<td>.17</td>
<td>.87</td>
<td>.41</td>
<td>- .12</td>
</tr>
<tr>
<td>PART3</td>
<td>- .19</td>
<td>.67</td>
<td>.31</td>
<td>- .02</td>
</tr>
<tr>
<td>PART2</td>
<td>- .16</td>
<td>.53</td>
<td>.31</td>
<td>.21</td>
</tr>
<tr>
<td>ENV2</td>
<td>- .31</td>
<td>.52</td>
<td>.24</td>
<td>.12</td>
</tr>
<tr>
<td>DIAL4</td>
<td>.20</td>
<td>.50</td>
<td>.28</td>
<td>.27</td>
</tr>
<tr>
<td>ENV3</td>
<td>.12</td>
<td>.35</td>
<td>.27</td>
<td>- .22</td>
</tr>
<tr>
<td>RT3</td>
<td>- .04</td>
<td>.18</td>
<td>.85</td>
<td>.04</td>
</tr>
<tr>
<td>PART1</td>
<td>.18</td>
<td>- .04</td>
<td>.73</td>
<td>- .05</td>
</tr>
<tr>
<td>DIAL2</td>
<td>.06</td>
<td>- .01</td>
<td>- .06</td>
<td>.70</td>
</tr>
<tr>
<td>ENV4</td>
<td>.05</td>
<td>.18</td>
<td>.33</td>
<td>.45</td>
</tr>
<tr>
<td>DIAL3</td>
<td>.02</td>
<td>.14</td>
<td>.17</td>
<td>.42</td>
</tr>
</tbody>
</table>
The best factor loading solutions are demarcated with a square in the table. The item ENV3, which corresponds to I7 of the survey, measuring the interaction with the environment, does not load significantly on any factor. It was therefore eliminated. The items DIAL1 (I9), ENV4 (I10) and DIAL3 (I13) had a low loading on the factor. However, the factor structure correlation supported this choice, whereby only ENV4 scored lower than 0.60 (0.57). Since this was the best factor solution, the empirically derived measurement scale was created on this basis and taken through CFA to test its construct validity.

Nevertheless, given the deductive approach presented in the methodology of the research, CFA was also used to test the fit of the initial measurement scale, so that the researcher could have compared the results of the fit of the theoretically and empirically derived scale and provide support for the final choice operated to analyse the findings.

**Confirmatory factor for the theoretically derived OLC measurement scale**

CFA was the statistical procedure adopted for testing the hypothesised factor structure (Byrne, 2001, as cited in Wang & Ahmed, 2004).

The initial results of CFA, including all the items that were showing a poor fit (CFI = 0.87; NNFI = 84). The items I3 (ENV1) and I12 (PART1) were identified as problematic and therefore eliminated from the analysis.

The final measurement model displayed a better fit, including the following indices: $x^2 = 137.67^{***}; x^2/df = 2.05; df = 67; SRMSR = .06; RMSEA = .09$ (90% CI = .07 - .11); CFI = .92; NNFI = .89.

The results for first order factor loading are displayed in Table 13. Therefore, in the remainder of this study, the factor scores were aggregated and represented by the average of all the items belonging to the same factor.
Table 13: Loadings of the first-order CFA of OLC

<table>
<thead>
<tr>
<th>Variables</th>
<th>$R^2$</th>
<th>Standard first order loading</th>
<th>Participative Decision-making</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Experimentation</td>
<td>Risk Taking</td>
</tr>
<tr>
<td>EXP1</td>
<td>.76</td>
<td>.87</td>
<td></td>
</tr>
<tr>
<td>EXP2</td>
<td>.80</td>
<td>.89</td>
<td></td>
</tr>
<tr>
<td>EXP</td>
<td>.76</td>
<td>.74</td>
<td></td>
</tr>
<tr>
<td>RT1</td>
<td>.54</td>
<td>.74</td>
<td></td>
</tr>
<tr>
<td>RT2</td>
<td>.30</td>
<td>.85</td>
<td></td>
</tr>
<tr>
<td>RT3</td>
<td>.35</td>
<td>.79</td>
<td></td>
</tr>
<tr>
<td>RT</td>
<td>.74</td>
<td>.85</td>
<td></td>
</tr>
<tr>
<td>ENV2</td>
<td>.33</td>
<td></td>
<td>.57</td>
</tr>
<tr>
<td>ENV3</td>
<td>.25</td>
<td></td>
<td>.50</td>
</tr>
<tr>
<td>ENV4</td>
<td>.33</td>
<td></td>
<td>.58</td>
</tr>
<tr>
<td>ENV</td>
<td>.89</td>
<td>.73</td>
<td>.76</td>
</tr>
<tr>
<td>DIAL1</td>
<td>.51</td>
<td></td>
<td>.71</td>
</tr>
<tr>
<td>DIAL2</td>
<td>.60</td>
<td></td>
<td>.60</td>
</tr>
<tr>
<td>DIAL3</td>
<td>.45</td>
<td></td>
<td>.67</td>
</tr>
<tr>
<td>DIAL4</td>
<td>.38</td>
<td></td>
<td>.62</td>
</tr>
<tr>
<td>DIAL</td>
<td>.86</td>
<td>.84</td>
<td>0.72</td>
</tr>
<tr>
<td>PART2</td>
<td>.86</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PART3</td>
<td>.63</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PART</td>
<td>.68</td>
<td>.65</td>
<td>.70</td>
</tr>
</tbody>
</table>

The standard first-order loading is the standard regression weight of the loading of an individual variable to a component factor (Lee, 2015); whereas the standard first order loading for the component factors, namely experimentation, risk taking, interaction with the environment, organisational dialogue and participative decision-making, is the covariance between any combination of two of these component factors.

According to the results in Table 13, it could be noted that the regression weights of all the variables loading to their factors all range from 0.50 to 0.93, with all the regressions being significant. Nevertheless, the $R^2$ of all the items intended to measure the interaction with the environment is particularly low and below 0.35.

Thereafter, second order factor loading was performed on the theoretically derived scale for OLC. This is the standard regression weight of the loading of each of the first-order factors onto the overall organisational learning capability construct (Lee, 2015). The results are displayed in Table 14.
The final measurement model, based on the theoretically derived scale, displayed acceptable yet not ideal fit, including the following indices: $x^2 = 162.09^{***}; x^2 /df = 2.22; df = 73; \text{SRMR} = .07; \text{RMSEA} = .10 \ (90\% \ CI = .08 - .12); \ CFI = .90; \ NNFI = .88$. The factor loading is represented graphically in Figure 20.

<table>
<thead>
<tr>
<th>Factors</th>
<th>$R^2$</th>
<th>Standard second-order loading OLC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Experimentation</td>
<td>.76</td>
<td>.87</td>
</tr>
<tr>
<td>Risk taking</td>
<td>.74</td>
<td>.86</td>
</tr>
<tr>
<td>Interaction with environment</td>
<td>.89</td>
<td>.95</td>
</tr>
<tr>
<td>Organisational dialogue</td>
<td>.86</td>
<td>.93</td>
</tr>
<tr>
<td>Participative decision-making</td>
<td>.68</td>
<td>.82</td>
</tr>
</tbody>
</table>

In order to judge the appropriateness of $R^2$ value it was needed to compare the results to previous OLC scale validation. Chiva and Alegre (2007) in their studies on Spanish SMEs reported composite reliability ranging from 0.65 and 0.80. Camps, Lapiedra and Torres (2011) validated the scale in the knowledge intensive industry in South America obtained a range of results between 0.80 and 0.93. Therefore, the results obtained in this CFA with composite reliability ranging from 0.68 and 0.89 were deemed acceptable.

**Figure 20:** CFA results of theoretically validated measurement scale for OLC

**The empirically derived OLC measurement scale**
The results obtained from EFA suggested that a new scale might be created that could provide a better explanation of the model. Hereafter the worded items of the original questionnaire are reported and re-organised accordingly, to facilitate the identification of the construct underlying them (Table 15)
<table>
<thead>
<tr>
<th>Original construct</th>
<th>Questionnaire item</th>
<th>New Construct</th>
<th>Source</th>
</tr>
</thead>
<tbody>
<tr>
<td>EXP1</td>
<td>1. We are encouraged and supported to present new ideas.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RT1</td>
<td>2. We pilot completely new projects.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>EXP2</td>
<td>4. We feel encouraged to generate new ideas</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RT2</td>
<td>6. We often pilot new ideas.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DIAL1</td>
<td>9. We express different opinions in this organisation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENV1</td>
<td>3. We collect, bring back, and report information about community development activities.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENV2</td>
<td>5. There are systems and procedures for receiving, collating and sharing information from outside the organisation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PART3</td>
<td>16. Managers in this organisation frequently involve employees in important decisions.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PART2</td>
<td>14. We feel involved in organisational decisions.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DIAL4</td>
<td>15. Cross-functional teamwork is a common practice here.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>PART1</td>
<td>12. Organisational policies are significantly influenced by our opinions.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>RT3</td>
<td>8. We are encouraged to take risks in this organisation.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENV4</td>
<td>10. We are encouraged to interact with the environment (competitors, customers, technological institutes, universities, suppliers).</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DIAL2</td>
<td>11. Managers facilitate communication in the organisation.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>DIAL3</td>
<td>13. There is a free and open communication within my work group.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>ENV3</td>
<td>7. We collect, bring back, and report information about fashion in the community.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
The initial results of CFA were quite good, however the Lagrange multiplier suggested that a significant improvement to the model could have been achieved eliminating the item ERR5 (I9 of the survey).

The final measurement model displayed a better fit, including the following indices: $\chi^2 = 105.73^{**} ; \chi^2 / df = 1.73 ; df = 61 ; \text{SRMR} = .06 ; \text{RMSEA} = .07 \ (90\% \ CI = .05 - .10) ; \text{CFI} = .94 ; \text{NNFI} = .93$.

The results for the first order factor loading are displayed in Table 16. Therefore, the factor scores were aggregated and represented by the average of all the items belonging to the same factor.

### Table 16: Loadings of the first-order CFA of OLC

<table>
<thead>
<tr>
<th>Variables</th>
<th>$R^2$</th>
<th>Knowledge Conversion</th>
<th>Participative Decision-making</th>
<th>Error openness &amp; Risk Taking</th>
<th>Organisational Dialogue</th>
</tr>
</thead>
<tbody>
<tr>
<td>KC1</td>
<td>.22</td>
<td>.47</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KC2</td>
<td>.32</td>
<td>.57</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KC3</td>
<td>.84</td>
<td>.91</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KC4</td>
<td>.63</td>
<td>.79</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>KC5</td>
<td>.36</td>
<td>.60</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PART1</td>
<td>.48</td>
<td>.69</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>PART2</td>
<td>.73</td>
<td>.86</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RT1</td>
<td>.62</td>
<td></td>
<td></td>
<td>.79</td>
<td></td>
</tr>
<tr>
<td>RT2</td>
<td>.61</td>
<td></td>
<td></td>
<td>.78</td>
<td></td>
</tr>
<tr>
<td>RT4</td>
<td>.68</td>
<td></td>
<td></td>
<td>.83</td>
<td></td>
</tr>
<tr>
<td>DIAL1</td>
<td>.34</td>
<td></td>
<td></td>
<td></td>
<td>.58</td>
</tr>
<tr>
<td>DIAL2</td>
<td>.41</td>
<td></td>
<td></td>
<td></td>
<td>.64</td>
</tr>
<tr>
<td>DIAL3</td>
<td>.48</td>
<td></td>
<td></td>
<td></td>
<td>.69</td>
</tr>
</tbody>
</table>

According to the results in Table 16, the first order loading of the factors, with the only exception of the item KC1 (I3) that loads on 0.47, is higher than 0.50, which is the threshold to deem it practically significant. The $R^2$ of the item is also low at 0.22; therefore this item could be eliminated from the model.

The final measurement model displayed good fit, including the following indices: $\chi^2 = 154.07^{***} ; \chi^2 / df = 2.11 ; df = 73 ; \text{SRMR} = .06 ; \text{RMSEA} = .09 \ (90\% \ CI = .07 - .11) ; \text{CFI} = .91 ; \text{NNFI} = .89$. 
Proceeding with the analysis, second order factor loading was performed on the empirically derived scale for OLC. The results are depicted in Table 17.

The factor loading is represented graphically in Figure 17 in Appendix D.

Table 17: Second order factors loading of OLC

<table>
<thead>
<tr>
<th>Factors</th>
<th>$R^2$</th>
<th>Standard second-order loading OLC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge Conversion</td>
<td>.72</td>
<td>.85</td>
</tr>
<tr>
<td>Participative Decision-making</td>
<td>.84</td>
<td>.92</td>
</tr>
<tr>
<td>Error Openness &amp; Risk Taking</td>
<td>.71</td>
<td>.84</td>
</tr>
<tr>
<td>Organisational Dialogue</td>
<td>.75</td>
<td>.87</td>
</tr>
</tbody>
</table>

Comparing the range of results obtained for $R^2$ in previous studies to validate scales on OLC, and comparing these results with the previous measurement scale, the value is acceptable and the fit of the items to the factors appeared improved.

Therefore, the empirically derived scale measuring OLC through a different set of factors was adopted as the basis to test the relation between OLC and social innovation among hybrid social enterprises in South Africa.

Definition of the empirically derived constructs:

- **Knowledge conversion**: Describes methodology, means of learning from past errors and dissemination of knowledge across the organisation through systems, training programs, formal and informal networks (Visser, 2009).

- **Error openness and risk taking**: An organisation's propensity, ability and willingness to take risk (Covin & Slevin, 1998) and the degree to which an organisation promotes reflection on past errors (Visser, 2009).

- **Organisational dialogue**: The ability of an organisation to promote effective internal communication among different departments and fostering acquisition of external information relevant to the mission of
the social enterprise (Chalmers & Balan-Vnuk, 2013; Seelos & Mair, 2012).

- **Participative decision-making:** The degree of inclusive decision-making supported by the organisational structures and leadership style of management (Chalmers & Balan-Vnuk, 2013).

### The empirically derived model of OLC

Figure 21 depicts the transformation applied to the OLC measurement scale, as a result of EFA and CFA, whereas the empirically derived measure is depicted in Figure 22.

![Figure 21: Modification to OLC measurement as a result of EFA and CFA](image-url)
4.4.2 Factor analysis of measures for social innovation construct

The dependent variable of the study is social innovation, which was investigated on the basis of a scale that considered it a second-order factor composed of four independent constructs.

As presented in Table 18, the results were significant and the KMO value of 0.86 provided support for the adequacy of factor analysis.

<table>
<thead>
<tr>
<th>Table 18: Indices of adequacy of EFA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kaiser-Meyer-Olkin sampling adequacy</td>
</tr>
<tr>
<td>Bartlett's test of approximate sphericity</td>
</tr>
<tr>
<td></td>
</tr>
<tr>
<td></td>
</tr>
</tbody>
</table>

As per the technique adopted in EFA for OLC, principal axis factoring method was chosen to calculate the factor and Harris Kaiser Case II was selected as the
rotation method. According to previous studies (Innobasque, 2013), four factors were expected to underlie the items measured, and subsequently to load on a second order factor describing the construct of social innovation. The scree plot (Figure 23) suggests only one factor scoring Eigenvalue greater than one, whereas three factors would have explained cumulatively 105 percent of the total variance of the items scores, with the first one of them explaining a significant 89 percent (Table 19).

Table 19: Eigenvalues

<table>
<thead>
<tr>
<th>Factor</th>
<th>Eigenvalue</th>
<th>Proportion</th>
<th>Cumulative</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>8.28</td>
<td>89%</td>
<td>89%</td>
</tr>
<tr>
<td>2</td>
<td>0.93</td>
<td>10%</td>
<td>99%</td>
</tr>
<tr>
<td>3</td>
<td>0.57</td>
<td>6%</td>
<td>105%</td>
</tr>
<tr>
<td>4</td>
<td>0.46</td>
<td>5%</td>
<td>110%</td>
</tr>
</tbody>
</table>

Figure 23: Scree plot illustrating the number of Eigenvalues and value of factors
### Table 20: Factor loading of social innovation measurement

<table>
<thead>
<tr>
<th></th>
<th>Factor 1</th>
</tr>
</thead>
<tbody>
<tr>
<td>KNOW2</td>
<td>0.74</td>
</tr>
<tr>
<td>DEV3</td>
<td>0.72</td>
</tr>
<tr>
<td>IMP1</td>
<td>0.72</td>
</tr>
<tr>
<td>GOV2</td>
<td>0.68</td>
</tr>
<tr>
<td>IMP2</td>
<td>0.66</td>
</tr>
<tr>
<td>KNOW1</td>
<td>0.65</td>
</tr>
<tr>
<td>DEV2</td>
<td>0.64</td>
</tr>
<tr>
<td>IMP3</td>
<td>0.59</td>
</tr>
<tr>
<td>GOV3</td>
<td>0.58</td>
</tr>
<tr>
<td>GOV1</td>
<td>0.55</td>
</tr>
<tr>
<td>DEV1</td>
<td>0.52</td>
</tr>
</tbody>
</table>

All the items loaded on one unique factor measuring social innovation had a score higher than 0.50. Therefore, it was decided to run CFA assuming social innovation as a unique construct.

Therefore, the construct was further analysed to establish whether it would have been appropriate and construct-valid to consider social innovation a first-order factor, as opposed to measuring it through the initial measurement scale.

**CFA for theoretically derived measurement of Social innovation**

The final measurement model displayed good fit, including the following indices:

\[ x^2 = 63.19^*; \frac{x^2}{df} = 2.10; df = 30; \text{SRMSR} = .05; \text{RMSEA} = .09 \text{ (90\% CI} = .06 -.12); \text{CFI} = .93; \text{NNFI} = .90. \]
Table 21: Loadings of the first order CFA for SI

<table>
<thead>
<tr>
<th>Variables</th>
<th>$R^2$</th>
<th>Knowledge</th>
<th>Development</th>
<th>Impact</th>
<th>Governance</th>
<th>Social Innovation</th>
</tr>
</thead>
<tbody>
<tr>
<td>KNOW1</td>
<td>.54</td>
<td>.74</td>
<td></td>
<td></td>
<td></td>
<td>.63</td>
</tr>
<tr>
<td>KNOW2</td>
<td>.75</td>
<td>.87</td>
<td></td>
<td></td>
<td></td>
<td>.74</td>
</tr>
<tr>
<td>KNOW</td>
<td>.73</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.86</td>
</tr>
<tr>
<td>DEV1</td>
<td>.35</td>
<td></td>
<td>.59</td>
<td></td>
<td></td>
<td>.52</td>
</tr>
<tr>
<td>DEV2</td>
<td>.54</td>
<td></td>
<td>.74</td>
<td></td>
<td></td>
<td>.64</td>
</tr>
<tr>
<td>DEV</td>
<td>.76</td>
<td></td>
<td></td>
<td>.87</td>
<td></td>
<td></td>
</tr>
<tr>
<td>IMP1</td>
<td>.63</td>
<td></td>
<td>.80</td>
<td></td>
<td></td>
<td>.61</td>
</tr>
<tr>
<td>IMP2</td>
<td>.68</td>
<td></td>
<td></td>
<td>.82</td>
<td></td>
<td>.63</td>
</tr>
<tr>
<td>IMP3</td>
<td>.40</td>
<td></td>
<td>.63</td>
<td></td>
<td></td>
<td>.48</td>
</tr>
<tr>
<td>IMP</td>
<td>.58</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.76</td>
</tr>
<tr>
<td>GOV1</td>
<td>.26</td>
<td></td>
<td></td>
<td>.51</td>
<td>.49</td>
<td></td>
</tr>
<tr>
<td>GOV2</td>
<td>.49</td>
<td></td>
<td></td>
<td>.70</td>
<td>.68</td>
<td></td>
</tr>
<tr>
<td>GOV3</td>
<td>.40</td>
<td></td>
<td></td>
<td>.63</td>
<td>.61</td>
<td></td>
</tr>
<tr>
<td>GOV</td>
<td>.95</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>.97</td>
</tr>
</tbody>
</table>

The second-order factor loading is represented graphically in Figure 24.

![Diagram of the structure of the theoretically derived measurement for SI](image)

**Figure 24: Structure of theoretically derived measurement for SI**

The first order loading on the factors identified by the theoretically derived measurement scale for social innovation is good; however, the $R^2$ of the item GOV1 (I25) is very low. If this item was dropped, only two items would explain
the variable of knowledge as well as governance, which would not be ideal in terms of their reliability.

Therefore, the possibility of empirically deriving a measurement scale for social innovation was investigated, which would describe the construct as a unique factor.

4.4.3 CFA of empirically derived measurement of social innovation

The final measurement model displayed good fit, including the following indices: \( x^2 = 36.37^*; \frac{x^2}{df} = 2.60; \text{df} = 14; \text{SRMSR} = .05; \text{RMSEA} = .11 \ (90\% \text{ CI} = .07 - .15); \text{CFI} = .93; \text{NNFI} = .90. \)

The results obtained from Lagrange multiplier suggested that items I17, I19 and I27 are dropped to improve the variance of the results and the model fit.

Therefore, the final measurement scale was described as follows (Table 22).

Table 22: Factor loading of empirically derived measurement scale of SI

<table>
<thead>
<tr>
<th>Item</th>
<th>( R^2 )</th>
<th>Social Innovation</th>
</tr>
</thead>
<tbody>
<tr>
<td>I18</td>
<td>.36</td>
<td>.60</td>
</tr>
<tr>
<td>I20</td>
<td>.35</td>
<td>.59</td>
</tr>
<tr>
<td>I21</td>
<td>.42</td>
<td>.64</td>
</tr>
<tr>
<td>I22</td>
<td>.51</td>
<td>.71</td>
</tr>
<tr>
<td>I23</td>
<td>.34</td>
<td>.58</td>
</tr>
<tr>
<td>I24</td>
<td>.56</td>
<td>.75</td>
</tr>
<tr>
<td>I26</td>
<td>.63</td>
<td>.79</td>
</tr>
</tbody>
</table>
Empirically derived model of social innovation

Figure 25 depicts the empirically derived model for social innovation that was adopted to test the conceptual model of the study.

![Empirically derived model of social innovation](image)

**Figure 25: Empirically derived measure of social innovation**

4.4.4 Summary of CFA analyses

The results of the CFA analyses, presented and summarised in Table 23, highlight all the indices and results taken into account to decide on the adoption of the empirically derived measurement.
Table 23: Model fit results

<table>
<thead>
<tr>
<th></th>
<th>Organisational Learning Capability</th>
<th>Social Innovation</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Theoretical</td>
<td>Empirical</td>
</tr>
<tr>
<td><strong>Basic Summary statistics</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Discrepancy function</td>
<td>2.35</td>
<td>2.11</td>
</tr>
<tr>
<td>ML Chi-Square</td>
<td>234.96</td>
<td>154.07</td>
</tr>
<tr>
<td>Degrees of Freedom</td>
<td>100</td>
<td>73</td>
</tr>
<tr>
<td>p-value</td>
<td>&lt;.0001</td>
<td>&lt;.0001</td>
</tr>
<tr>
<td>RMS Standardised Residual</td>
<td>.07</td>
<td>.06</td>
</tr>
<tr>
<td><strong>Non-centrality Fit indices</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Steiger-Lind RMSEA Index Point estimate</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>.10</td>
<td>.09</td>
</tr>
<tr>
<td>90%CI</td>
<td>.08-.11</td>
<td>.07-.11</td>
</tr>
<tr>
<td>Bentler’s Bonnet CFI</td>
<td>.87</td>
<td>.91</td>
</tr>
<tr>
<td>NNFI</td>
<td>.84</td>
<td>.89</td>
</tr>
</tbody>
</table>

The statistics of the CFA supported the adoption of empirically derived measures, as they better suit the model of the study.

4.4.5 Reliability of empirically derived measurement scales

Table 24 summarises the results obtained to support the composite reliability of the empirically derived measurement for the independent and dependent variables.

Table 24: Composite reliability of empirically derived measurements

<table>
<thead>
<tr>
<th>Components</th>
<th>Number of items</th>
<th>Average inter-items total correlation</th>
<th>Cronbach’s alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td>OLC</td>
<td>12</td>
<td>.60</td>
<td>.90</td>
</tr>
<tr>
<td>Knowledge conversion</td>
<td>4</td>
<td>.61</td>
<td>.80</td>
</tr>
<tr>
<td>Error openness &amp; risk taking</td>
<td>3</td>
<td>.70</td>
<td>.84</td>
</tr>
<tr>
<td>Participative decision-making</td>
<td>2</td>
<td>.59</td>
<td>.75</td>
</tr>
<tr>
<td>Organisational dialogue</td>
<td>3</td>
<td>.49</td>
<td>.67</td>
</tr>
<tr>
<td>Social innovation</td>
<td>7</td>
<td>.59</td>
<td>.86</td>
</tr>
</tbody>
</table>

4.5 Distribution of data

To complete the assessment of the data obtained for measures of the independent and dependent variables, the normality of the distribution was investigated. This section reports on central tendency and variability, skewness
and kurtosis, and the goodness of fit for normality, measured through Kolgomorov-Smirnov (D), of the score distribution of each factor component of OLC, summarised in Table 25. The graphic representations of each distribution are reported in Appendix D (Figures 32 to 35). Table 26 reports on the relevant indices to measure the normality of data for the dependent variable, whereas their graphic representations appear in Appendix D (Figure 36).

Table 25: Central tendency and variability of independent variable for empirically derived scales

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Std</th>
<th>D</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knowledge conversion</td>
<td>5.37</td>
<td>1.08</td>
<td>.11</td>
<td>-.07</td>
<td>.18</td>
</tr>
<tr>
<td>Error openness &amp; Risk-Taking</td>
<td>5.47</td>
<td>1.23</td>
<td>.22</td>
<td>-1.53</td>
<td>2.37</td>
</tr>
<tr>
<td>Participative decision-making</td>
<td>4.82</td>
<td>1.58</td>
<td>.14</td>
<td>-.67</td>
<td>-.50</td>
</tr>
<tr>
<td>Organisational Dialogue</td>
<td>5.59</td>
<td>1.08</td>
<td>.12</td>
<td>-.94</td>
<td>.85</td>
</tr>
</tbody>
</table>

Table 26: Central tendency and variability of dependent variable of the empirically derived scale of social innovation

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Std</th>
<th>D</th>
<th>Skewness</th>
<th>Kurtosis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social innovation</td>
<td>5.64</td>
<td>.90</td>
<td>.12</td>
<td>-.75</td>
<td>.14</td>
</tr>
</tbody>
</table>

The distributions are satisfactorily normal, although they are all slightly negatively skewed, while interaction with the environment variable of OLC and social innovation also have a negative kurtosis. Normality of the distribution of data was a necessary assumption that needed to be confirmed in order to proceed with factor analysis.

4.6 SEM

The theoretical model of the study was tested through SEM. The results are represented in Figure 26.
The final measurement model displayed good fit, including the following indices:
\[ x^2 = 75.62; \frac{x^2}{df} = 1.72; df = 44; \text{SRMSR} = .05; \text{RMSEA} = .07 \text{ (90\% CI = .04 - .10); CFI} = .95; \text{NNFI} = .93. \]

The chi-squared statistic is non-significant; the standardised root mean squared residual (SRMSR) is below the maximum accepted threshold of 0.08; whereas the Bentler-Bonett’s comparative fit index exceeds the recommended minimum acceptance threshold for goodness of fit, established at 0.9.

![Empirically derived model structure of the relation between OLC and social innovation](image)

**Figure 26: Empirically derived model structure of the relation between OLC and social innovation**

The results of SEM highlighted that the path relation between the factors of OLC and social innovation is very weak. However, the good model fit and the existence of a relation suggested further investigation of the model through curvilinear and cubic functions, assuming that the relation might strengthen in correspondence to particular values of the independent variables.

### 4.7 Testing the hypotheses of the model

The research question addressed by this study aimed at investigating the relation between factors of organisational learning capability and social innovation. The empirical analysis of the measurement led to creating a new conceptual model of the study, whereby the independent variable comprises four constructs. Therefore, the relation between OLC and the dependent variable,
social innovation, was investigated with one new proposition and three hypotheses, because only three of the empirically derived factors corresponded to the ones initially proposed on the basis of literature (Figure 27).

![Diagram](image.png)

**Figure 27: The empirical conceptual model of the study**

In this section, for each hypothesis the scatter plot obtained from the SEM is reported, in order to support the assessment on the type of relations existing between the variables. The best prediction model obtained from linear, curvilinear and cubic SEM for each variable is reported. Scatter plots of residuals by regressor for each of the independent variables are reported in Appendix F (Figures 40 to 47).

### 4.7.1 Results pertaining to Proposition 1

*There is a positive relationship between South African hybrid NPOs’ knowledge conversion and their capability for increased social innovation.*
Table 27: Curvilinear regression results for the effect of experimentation on social innovation

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>4.8</td>
<td>.45</td>
<td>0</td>
</tr>
<tr>
<td>RT</td>
<td>.06</td>
<td>.07</td>
<td>.08</td>
</tr>
<tr>
<td>PART</td>
<td>.06</td>
<td>.05</td>
<td>.1</td>
</tr>
<tr>
<td>DIAL</td>
<td>.03</td>
<td>.07</td>
<td>.04</td>
</tr>
<tr>
<td>KC</td>
<td>.48</td>
<td>.08</td>
<td>.58</td>
</tr>
<tr>
<td>KC²</td>
<td>.06</td>
<td>.04</td>
<td>.12</td>
</tr>
</tbody>
</table>

Anova F = 21.32
Adj R² = .45
Akaike = -98.14
Bayesian = -95.58
Schwarz Bayesian = -80.71
Prediction = 0.6

Notes for parameters: B = unstandardized parameters, β = standardized parameters, *** = p < .001, ** = p < .05, * = p < .10.

Figure 28: The curvilinear effect of knowledge conversion on social innovation

Knowledge conversion has a moderate positive effect on predicting social innovation. This is valid starting point from very low levels of knowledge.
conversion, and increases slightly more than in a linear relation for increasing levels of the variable (Figure 28).

The relation is statistically significant at $p<0.01$, which allows the researcher to eliminate the null hypothesis and to confirm the support of the findings for proposition 1 (Table 27).

### 4.7.2 Results pertaining to Hypothesis 1:

There is a positive relationship between South African hybrid NPOs’ risk taking and their capability for social innovation.

| Table 28: Results for cubic regression of risk taking on social innovation |
|-----------------------------|-----|-----|-----|
| **Cubic Model**             | **B** | **SE** | **β** |
| Intercept                   | 2.8*** | .41  | 0   |
| KC                         | .51*** | .08  | .61 |
| PART                       | .03   | .05  | .04 |
| DIAL                       | .03   | .07  | 0   |
| RT                         | .32*** | .09  | .44 |
| RT²                        | .1     | .06  | -.36|
| RT³                        | -.1**  | .02  | -.78|
| Anova F                    | 22.71*** |      |     |
| $R^2$                      | .52   |      |     |
| Adj $R^2$                  | .49   |      |     |
| Akaike                     | -112.7† |      |     |
| Bayesian                   | -109.94† |      |     |
| Schwarz Bayesian           | -92.36† |      |     |
| Prediction                 | .54†  |      |     |

Notes for parameters: $B =$ unstandardized parameters, $β =$ standardized parameters, $^*$ = $p < .01$, $^\dagger$ = $p < .05$, $^\ddagger$ = $p < .10$.

Risk taking exerts a statistically significant effect on social innovation; therefore, the null hypothesis can be rejected (Table 28).

The relation between the two variables is not a linear one, rather it is explained by a cubic function. The curve explaining the relation has a highly negative slope for negative values of risk taking; it then flexes around the null value and is
described by a positive yet quite flat slope as risk taking increases (Figure 29). However, the cubic function suggests that the curve has a further flexion point, whereby as risk taking grows; its effect on social innovation is negative again.

![Graph showing cubic effect of risk taking and error openness on social innovation.](image)

**Figure 29: Cubic effect of risk taking and error openness on social innovation**

### 4.7.3 Results pertaining to Hypothesis 2:

There is a positive relationship between South African Hybrid NPOs’ organisational dialogue and their capability for increased social innovation.

The results of the linear regression are statistically significant at $p < 0.01$, which allows the rejection of the null hypothesis (Table 29).

The findings support the existence of a moderate positive relation between organisational dialogue and social innovation, as confirmed graphically by the linear regression of the residuals of the independent variable on the dependent variable (Figure 30).
Figure 30: Scatter plot of the effect of organisational dialogue on social innovation

Table 29: Linear regression results of organisational dialogue on social innovation

<table>
<thead>
<tr>
<th>Linear Model</th>
<th>Variable</th>
<th>B</th>
<th>SE</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>2.8***</td>
<td>.42</td>
<td>0</td>
<td></td>
</tr>
<tr>
<td>KC</td>
<td>.43***</td>
<td>.08</td>
<td>.52</td>
<td></td>
</tr>
<tr>
<td>RT</td>
<td>.04</td>
<td>.07</td>
<td>.06</td>
<td></td>
</tr>
<tr>
<td>PART</td>
<td>.06</td>
<td>.05</td>
<td>.11</td>
<td></td>
</tr>
<tr>
<td>DIAL</td>
<td>.04</td>
<td>.07</td>
<td>.05</td>
<td></td>
</tr>
<tr>
<td>F</td>
<td></td>
<td>25.63</td>
<td>.05</td>
<td></td>
</tr>
<tr>
<td>R²</td>
<td></td>
<td>.44</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adj R²</td>
<td></td>
<td>.42</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Akaike</td>
<td></td>
<td>-97.34</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bayesian</td>
<td></td>
<td>-94.96</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Schwarz Bayesian</td>
<td></td>
<td>-82.81</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prediction</td>
<td></td>
<td>.6†</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes for parameters: B = unstandardized parameters, β = standardized parameters, *** = p < .01, ** = p < .05, * = p < .10.
4.7.4 Results pertaining to Hypothesis 3:

There is a positive relationship between South African NPOs' participative decision-making and their capability for increased social innovation.

Table 30: Results for linear regression of participative decision-making on social innovation

<table>
<thead>
<tr>
<th>Variable</th>
<th>B</th>
<th>SE</th>
<th>β</th>
</tr>
</thead>
<tbody>
<tr>
<td>Intercept</td>
<td>2.8***</td>
<td>.48</td>
<td>0</td>
</tr>
<tr>
<td>KC</td>
<td>.43***</td>
<td>.08</td>
<td>.52</td>
</tr>
<tr>
<td>RT</td>
<td>.04</td>
<td>.07</td>
<td>.06</td>
</tr>
<tr>
<td>DIAL</td>
<td>.06</td>
<td>.05</td>
<td>.11</td>
</tr>
<tr>
<td>PART</td>
<td>.04</td>
<td>.07</td>
<td>.05</td>
</tr>
<tr>
<td>Anov-F</td>
<td></td>
<td>25.63</td>
<td></td>
</tr>
<tr>
<td>$R^2$</td>
<td></td>
<td>.44</td>
<td></td>
</tr>
<tr>
<td>Adj $R^2$</td>
<td></td>
<td>.42</td>
<td></td>
</tr>
<tr>
<td>Akaike</td>
<td>-97.34†</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Bayesian</td>
<td>-94.96†</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Schwarz Bayesian</td>
<td>-82.81†</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Prediction</td>
<td></td>
<td>.6†</td>
<td></td>
</tr>
</tbody>
</table>

Notes for parameters: $B = \text{unstandardized parameters, } \beta = \text{standardized parameters, } * = p < .01, ** = p < .05, *** = p < .10.$

The results are statistically significant at $p<0.01$, hence the null hypothesis can be rejected.

The data (Table 30) support the existence of a moderate positive linear relation between the participative decision-making and social innovation, even if the slope of the regression is quite flat, as represented graphically in Figure 31.
Figure 31: Fit diagnostic for the linear effect of participative decision-making on social innovation

4.8 Summary of the results

Concluding on the findings of the study, the total sample size was composed of 135 practitioners and managers of NPOs, and social entrepreneurs. The measures of the independent variables adopted for the analysis of the conceptual model of the study were empirically derived. Therefore, the construct of organisational learning capability was described by knowledge conversion, risk taking, participative decision-making and organisational dialogue. The measurement scale was derived empirically by comparison of the results obtained with EFA and then validated through CFA and composite reliability.

The data on the dependent variable were obtained by adopting a regional index from Spain. Therefore, further validation studies were conducted on the results obtained. These led to the formulation of a new measurement scale for the construct, which was defined by seven measured items.

The assumptions of factor analysis were satisfied through the Bartlett test of sphericity and the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy.

The significance of the results of the study was limited by the non-randomised sample and the fact that the survey was self-administered. The data were
collected on the basis of previously existing scales, however the validation of the measures suggested that better measurement scales could have been developed. Therefore, new measures were construct validated and adopted for the study.

The new measurement scales originated a new conceptual model for the study to investigate the relation between OLC and social innovation. Three of the original hypotheses and one new proposition were tested. All of them reported statistically significant results, that allowed the rejection of the null hypothesis.

On the whole, there was a linear significant but weak support for Hypothesis 2: There is a positive relationship between South African hybrid NPOs’ organisational dialogue and their capability for increased social innovation, and Hypothesis 3: There is a positive relationship between South African hybrid NPOs’ participative decision-making and their increased capability for social innovation. Interestingly, the empirical regression analysis suggested that Hypothesis 1: There is a positive relationship between South African NPO’s risk taking and the increased capability for social innovation, and Proposition 1: There is a positive relationship between South African NPOs’ knowledge conversion and their increased capability for social innovation, were supported only for a specific range of values measuring the factor, because the relation is explained by a curvilinear (P1) and cubic model (HP1).
CHAPTER 5. DISCUSSION OF THE RESULTS

5.1 Introduction

This chapter provides theoretical grounding that offers an interpretation of the results of the research, as presented in the previous section.

5.2 Demographic profile of the respondents

The survey was circulated among senior and middle level staff, project managers, consultants and social entrepreneurs working with three countrywide non-profit organisations of South Africa. Approximately one third of the respondents participated online, whereas the vast majority completed the questionnaire on the hard copies that were cascaded to local branches of the organisations from their respective head offices in Johannesburg.

A total of 141 respondents participated in the survey, but only 135 of them completed the questionnaire in full, which was considered a valid set of responses. Both the dependent and independent variables were measured on the basis of responses collected through the same survey. Nevertheless, this number of participants fulfilled the required minimum sample size that was needed in order to proceed with the selected statistical method of analysis, SEM.

The demographic information collected from the respondents aimed at investigating three factors that were presented in literature with regard to the relationship between entrepreneurial activity and level of education and the potential influence of organisational tenure on social innovation. Furthermore, the influence of cross-department collaboration and the variety of contractual relations through which NPO practitioners engage with organisations and the capacity to generate social innovation of the same organisation.

With regard to the relation between levels of education attained and entrepreneurial activity, the benchmark to compare the results was sourced from
the GEM, particularly the issue focused on South Africa released in 2014 (Herrington & Kew, 2014). According to the report, only a minority of entrepreneurs in South Africa completed a post-secondary degree, whereas 89 percent of the population of entrepreneurs enrolled in secondary schools, among which almost half completed their education. With regard to the results from the study, 38 percent of the participants to the survey were members of AIESEC, by definition university students or recent graduates. Therefore, the results of 30 percent of respondents having concluded undergraduate studies, 18 percent of them pursuing honours degree and 4 percent undergoing their post-graduate education might not be representative of the population of NPO practitioners in the country.

Nevertheless, interesting consideration might arise if these data are compared to other reports focused on the attractiveness of careers in NPOs (Greater Capital, 2014; Tandon, 2014), the value of volunteering experiences (IFRC, 2011) and the sustainability of NPOs in South Africa (Greater Capital, 2013; Hart et al., 2014). According to the Europe-based studies, several graduates considered experiences in NPOs and social enterprises as a valuable option for their career advancement, in terms of developing relevant entrepreneurial skills, obtaining exposure and developing their personal network. Nevertheless, the reports on the status of South African NPOs highlighted that the financial constraints of these organisations significantly hinder their capacity to place themselves as valuable employers for highly skilled professionals.

Recent national reports of European economies facing the implication of the financial crisis and public debt (Royal Bank of Scotland, 2011), provided interesting insights on the value of the social economy and the third sector to sustain economic growth, employment levels and welfare of the state. In light of the challenges faced by the South African society, and its urgent need for entrepreneurial solutions to social challenges and employment creation, it was interesting to notice that more than half of the respondents of the study had a post-secondary level of education, and 96 percent of the participants had finished matric. According to entrepreneurial studies (Unger, Rauch, Frese &
Rosenbusch, 2009), these are the individuals who would be more likely to foster innovation and growth in their organisations.

Subsequently, the organisational tenure of the participants was investigated. Recent studies analysed the effect of path dependency and organisational inertia on the implementation of social entrepreneurial initiatives at corporate level as well as in non-profit entities (Newth & Woods, 2014). Therefore, the consideration was given to whether NPOs evolving their business model towards hybrid forms of social enterprises chose to capitalise on the skills of experienced workers, thus finding a balance between capitalising on a strong organisational culture and internal resistance to change; or attract professionals who are new to the organisation and to the sector. A high percentage (42 percent) of the respondents reported to be new to the sector, having worked in it for less than 12 months. Just 25 percent of the participants in the study had been in the sector for a medium period of one to three years and another quarter had been in the sector for more than six years. These results align with the expectation that diversity of profiles in an organisation might facilitate innovation (Hull & Lio, 2007). The results of the ANOVA test did not suggest a significant variance for the influence of different levels of organisational tenure on social innovation. Furthermore, the profiles obtained are coherent with the theoretical finding that the entrepreneurial orientation of organisations positively relates to the human capital of their workers (Unger et al., 2009).

The last demographic variable investigated was the job role and the position in the organisation. Tacit forms of organisational knowledge increase when different profiles work together and collaborate (Tandon, 2014). This is particularly true in the NPO sector, where it is relevant to adopt strategic solutions, which suit the needs of diverse local communities. Therefore, these organisations might enter into a variety of contractual relations in order to attract professionals, senior profiles, project managers, consultants and social entrepreneurs, leading the implementation of social innovation at community level (Lettice & Parekh, 2010). The organisations involved in the study confirmed such a proposition with 16 percent of the respondents being senior managers,
whose role is to develop strategies and nation-wide initiatives or to ensure good governance of the organisations by heading regions or entire branches of the entity. Moreover, 39 percent of the respondents were field workers, who are directly involved with the target community; 29 percent were project managers, who serve to liaise with head office and local branches for the delivery of social projects and initiatives. Finally, 16 percent of the participants were either social entrepreneurs, being directly involved in the delivery of products or services source of income streams for the organisation, or external consultants who are usually hired on a temporary basis.

5.3 Discussion pertaining to Proposition 1: The effects of knowledge conversion

The first proposition is concerned with the effects of knowledge conversion on the capability of an organisation to generate social innovation. Despite the contested notion of complementarity of organisational learning and knowledge management (Gunsel, et al., 2011; Liao & Wu, 2010) the empirically derived measure of OLC suggested that in this specific context of hybrid organisations in South Africa, knowledge conversion is a variable describing organisational learning capability.

Learning organisations promote a culture of individual learning and favour its transmission into organisational practices (Camps & Maiocchi, 2010). In fact, organisations should derive several benefits from establishing a set of systems and processes that allow the transformation of individual knowledge into collective knowledge, which is represented as unique routine procedures (Gunsel et al., 2011) and constitute organisational memory (Walsh & Ungson, 1991, as cited in Camps & Maiocchi, 2010).

Therefore, knowledge and its effective utilisation at organisational level were identified as a vehicle that fosters idea creation and enhances innovation (Parlby & Taylor, 2000, cited in Gunsel et al., 2011). Furthermore, the process of knowledge management (Figure 5, Chapter 2) creates valuable intangible assets
that form part of the capital of the organisation (Gunsel et al., 2011) and it is a driving force for innovation. Timely combining of internally generated and externally acquired knowledge with existing products and services in creative ways is a source of competitive advantage for any hybrid organisation in delivering on increased social innovation (Chesbrough, 2009, as cited in Escobar et al., 2011).

An additional factor relating knowledge conversion in NPOs to social innovation is that knowledge management is an organisational tool to exceed customer expectations (Gunsel et al., 2011). The embedded nature of social enterprises (Karanda & Toledano, 2012) provides support of this view, whereby the organisation needs to understand the need of the community it aims to support, elaborate upon this information and convert it into organisational knowledge, in order to develop the right set of solutions to deliver to the community. Dees (2009) suggested that if knowledge does not circulate effectively in the organisation, it is very likely that resources are wasted, causing a negative impact on the community where the organisation operates.

The results of the study show that the positive relation between knowledge conversion and social innovation begins at very low levels of the independent variable. Despite the apparent contradiction, the literature provides an explanation for this circumstance. The process of knowledge conversion evolving in social enterprises should take place through practice, active participation and interaction of local agents (Tandon, 2014). However, this is complicated by the complexities characterising the cross-sector environment where NPOs and social enterprises operate and their need to develop and implement context-specific solutions. Moreover, the short contractual relationships established with volunteers, consultants or short-term project managers might hinder their propensity to adopt internal innovative solutions and processes, unless they clearly perceive that the required change directly improves their capacity to generate social change (Hull & Lio, 2007). Under such circumstances, organisations might relate more positively to routine problem-solving strategies, which eventually evolve in knowledge-inertia (Liao et al., 2008), and
inefficiencies of adopting new practices that would better respond to newly assessed needs and newly obtained information.

This is reflected in the results obtained for the curvilinear relation existing between knowledge conversion and social innovation. For small negative values of knowledge conversion, the organisation might produce social innovation, potentially compensating these inefficiencies in the short-term with other organisational factors.

Furthermore, knowledge conversion is viewed as a process; the score obtained identifies the outcome of such process at a specific point in time. Nevertheless, the slope of the parabolic function is positively oriented, yet it is not steep. This signifies that a small increment in levels of knowledge conversion causes a slightly higher positive increase of social innovation.

In conclusion, the empirical results of the study provide support for the proposition.

5.4 Discussion pertaining to Hypothesis 1: Risk taking

It is disputed whether risk-taking should be considered positively or negatively when adopted as the organisational posture of a NPO, whose primary role is to cater for social needs. In the for-profit environment, successful ventures embark on new projects or launch new services by taking calculated risks.

Some authors argue for the negative effects of risk taking, sourcing from the analysis of the possible consequences of marketising non-profits. Accordingly, organisations focused on delivering commercial services entered a new competitive space, where they need to gain market share that was previously owned by for-profit organisations (Eikenberry & Kluver, 2011). Therefore, they need to experiment new ways of providing their product by focusing on new target markets that can afford to pay for their products (Rosenman, Scotchmer & VanBenschoten, 1999). Alternatively, they may opt for meeting demands of individuals, shifting away from the provision of public goods that were previously
intended to be free, such as education, healthcare and advocacy (Alexander, Nank & Stivers, 1999). The same reasoning would apply to the resources and effort invested in advocating for rights of the most disadvantaged to access services. Consequently, a focus on experimentation and venturing into unknown territories might drive the focus away from the originally intended beneficiary, causing negative levels of social innovation.

NPOs are commonly risk-averse, as an outcome of a high-sense of accountability for failure (Hull & Lio, 2007). In fact, social entrepreneurs have risk-management qualities (Weerawardena & Mort, 2006), rather than risk-taking qualities. This is well explained by the cubic shape of the curve that represents the relation between risk taking and social innovation. Accordingly, for negative values of risk-taking, the slope of the curve is negative. Therefore, social innovation would be very high for extremely limited risk taking. Thereafter, the increment of social innovation would be negative as risk taking incrementally increases. However, the trend would invert for a limited interval of values of risk taking, whereby increases in the level of risk taking would cause a positive increment in social innovation. Thereafter, the trend would invert again and social innovation would continue to be negatively affected by increases in risk taking by hybrid NPOs.

This means that organisations that were not used to taking risks, might face an initial significant drop in the social innovation they produce when implementing a change of approach. There is only a small interval of risk taking where the relation between the variables is positive. This represents the risk-management ability of the social entrepreneur. In the social sphere, is very hard to define the size and scope of acceptable failure, as it may happen to the detriment of individual or communities.

Particularly in South Africa, the majority of funding sources for non-profit organisations still originates from donors, philanthropy and CSI, rather than impact investing and customer relations (Greater Capital, 2014). Therefore, these organisations are still required to be accountable to their funders, donors and communities to whom they deliver their services, largely for free.
In such a context, the dominant logic and organisational culture is still informed by the attitude of managers who received perpetual funding in exchange for standardised activities, targeted reporting and stability; whereas, risk taking relates to disruptive innovation and potential for failure (Mulgan, 2006). Moreover, standard methods to evaluate success in South African NPOs still lack tools to evaluate the social financial return on investment of their initiatives, which should be the basis to justify risk taking (Hull & Lio, 2007).

The empirical results of the study suggest that in the South African context, hybrid social enterprises are not yet a ‘laboratory for risk taking’ as envisioned by Frumkin (2002, as cited in Dover & Lawrence, 2012). Hypothesis 1 should be accepted for only a limited interval of values of risk taking around zero.

5.5 Discussion pertaining to Hypothesis 2: Organisational dialogue

Tandon (2014) described, in a theoretical framework, the dynamics of organisational dialogue occurring inside the social enterprise as well as between the organisation and its stakeholders (Figure 9, Chapter 2). Every actor involved in the dynamic relies on agents who can bridge boundaries and gaps. With regard to organisational dialogue with the external environment, these agents are mostly represented by volunteers, consultants and project managers who participate in and contribute to the initiatives of the NPOs. These individuals usually interact closely with the community, developing the capacity to scan for weak signals of opportunities to develop innovative answers to relevant needs of the community itself (Lettice & Parekh, 2010), by means of autochthonous solutions. Therefore, social enterprises develop complex, and often advanced, processes to collect information from the community and report them internally.

As mentioned, in relation to the previous hypotheses of this study, South African NPOs still operate mostly through hierarchical structures, which do not facilitate widespread information collected at community level. Instead, information is collected and reported, but only flows in one direction, from the local branch to
the head office. Thereafter this information is compared at head office to new information circulated in the same direction, from local level to central.

This internal communication flow differs significantly from the ideal model proposed by Tandon (2014), according to whom social enterprises should implement internal knowledge management initiatives such as peer training, database development, fostering employees subscription to external sources of reports, facilitating informal meetings internally, as well as fostering the participation in conferences and events (Chalmers & Balan-Vnuk, 2013). Such practices are the ideal basis to attract, elaborate, circulate and retain information, which in turn can be transformed into impactful socially innovative initiatives. The relationship between organisational dialogue and social innovation was positive, as expected according to Hypothesis 2. However, the slope of the regression line is flat, which is expected as an indication of the gap separating the current state of hybrid NPOs in South Africa from the ideal structure and practice that would enhance the implementation of organisational dialogue that would have real leverage on social innovation.

### 5.6 Discussion pertaining to Hypothesis 3: Participative decision-making

In any successful organisation, structure and strategy should be closely related and they inform each other (Martinez-Leon & Martinez-Garcia, 2011; Ormiston & Seymour, 2011). The organisational structure of traditional NPOs, whose funding strategies are based on donations and philanthropic giving, foster an environment that inhibits innovation, in favour of stability. These structures are usually rigid and hierarchical, preventing lateral and vertical collaboration among different departments and functions (Dougherty & Hardy, 1996). Organisations with such business models focus on fulfilling donor stakeholder’s expectations, rather than innovative problem solving (Ostrower et al., 2006).

On the contrary, organisational structures that facilitate inclusive decision-making practices, support innovation, as proposed in case studies of BRAC and Sekem,
two large NGOs in India and Egypt respectively. This process of learning and innovation needs to be inspired by transformational leaders, who can leverage on opinions, ideas of their employees and inspire them to work towards the common organisational mission (Jaskyte, 2004). Furthermore, employee commitment increases with engagement (Chalmers & Balan-Vnuk, 2013); which in the case of NPOs, means having staff members who are motivated to achieve the organisational mission that relates exclusively to the social innovation and impact generated rather than on their personal economic return.

Moreover, the findings of the Global Leadership Index (World Economic Forum, 2014) highlighted that the respondents in this global study are most confident about NPO leaders, when compared with leaders of any other sector, because they are trusted to advocate for the marginalised and under-represented through the actions of their organisations. The profile that emerged from the study portrays the best leaders as being inclusive, good listeners and mediators, who can empower their team to execute through delegation and keep positive in face of adversity.

The results of this study mirror this belief, portraying a good, positive and significant relation between participative decision-making and social innovation, whereby higher levels of inclusive leadership generate higher levels of social innovation. However, the slope of the relation is quite flat, which mirrors the fact that South African NPOs are still characterised by low levels of participative decision-making, in light of the fact that, as presented above, the biggest proportion of their budget is still covered through public grants and donor funding (Greater Capital, 2014; Hart et al., 2014). Therefore, only a significant increase in the adoption of inclusive leadership practices might result in relevant increases of social innovation.

Nevertheless, a further step towards a solution might come from operations of complete change management, that would change the structure of the organisation, in order to effectively sustain new funding strategies and hybrid business models. Thus, in turn, the results of the study support Hypothesis 3.
5.7 General considerations of the study

In summary, as expected from literature relating to SMEs and knowledge intensive industries, there is a positive relation between the organisational learning capability of South African hybrid NPOs and their capacity to increase social innovation. Nevertheless, as predicted by theoretical perspectives on the embedded nature of SE (Karanda & Toledano, 2012), the social components of this sector imply that the studies on the field must take into account local social, human capital factors as well as contextual conditions.

The theoretically developed model of the study was not supported by the empirical findings. This might be considered a foreseeable outcome of studies focused on fields such as this, that are still in their infancy (Bacq & Janssen, 2011; Dees & Anderson, 2006). However, the empirically derived model was still coherent with previous literature, allowing for further investigation on the specific factors that characterise the construct of organisational learning capability in hybrid South African NPOs.

Therefore, the empirical findings of the study suggested that Proposition 1 was supported. Accordingly, there is a positive relation between knowledge conversion and social innovation, which originates when the variable of knowledge conversion is low or negative. Hypothesis 1 was only partially supported, because in South African NPOs, risk-taking exerts a positive effect on social innovation, but only when risk is managed, without exposing the organisation to managerial decision that are deemed risky. Hypothesis 2 and Hypothesis 3 were supported. Therefore, participative decision-making and organisational dialogue have a positive effect on increased social innovation.

However, in the South African NPO sector these factors are still limited, as these organisations started their organisational change management process only recently and the process evolves slowly along the hierarchical structures that characterise such organisations.
5.8 Implications and recommendations of the study

The findings derived from the study served as inputs for several interesting insights that might help practitioners in the NPO field, as well as government agencies to foster the creation of an environment conducive to enhancing social innovation. This section highlights the main suggestions that the researchers would like to bring to the attention of these influential actors.

5.8.1 Recommendations for NPOs

According to the conclusion from empirical findings, South African NPOs are still engaging with the process of organisational change needed to become successfully hybrid in nature.

Organisational learning capability is still low. Therefore, it will be crucial to embark on this change management journey strategically. Based on international best practices, and on the evidence of this research, here are three steps suggested to pursue such aim.

Step 1: Knowledge conversion and organisational dialogue

NPOs should look at technology-enabled solutions to facilitate collecting data from the communities where they operate. This information should be circulated internally in real-time, elaborated upon and prospects for solutions generated. East-African and Indian social enterprises are pursuing this through mobile technology and open-source, low-cost software.

Furthermore, the research emphasised the value of accessing and circulating external knowledge. Virtual platforms, social networks and the Internet allow accessing best practices and connecting to people worldwide. Many would argue that South Africa is not yet equipped with high-speed connection all over the country. Nevertheless, the main telecommunication companies are expected to invest in community development as part of their CSI spend, as well as to support the growth of SMEs as part of their enterprise development spend. One example that NPOs could leverage on would be strategic partnerships which
capitalise on the legislative framework of the country. This might be an efficient means of generating sustainable systemic South African solutions to foster knowledge conversion into hybrid NPOs and social enterprises, hence enhancing their social innovation.

**Step 2: Participative decision-making**

NPOs should surmount static definitions of mission and vision of the organisation, and rather focus on engagement strategies that start with the purpose of the organisation. Purpose-driven employees, managers and consultants are more effective and eager to adopt problem-solving entrepreneurial approaches to challenges they might face. In fact, engaged employees begin with creating democratic processes for designing middle- and long-term ambitions of the organisation, through processes such as appreciative inquiry and scenario building.

NPOs could seek the support of Universities and institutes of education, which could offer courses aimed at NPO middle and senior managers, to help them develop the needed visionary leadership skills to successfully drive such processes.

Furthermore, NPOs could approach corporate partners requesting them to divert part of their CSI investment towards this process, by means of volunteering hours of mentorship or coaching activity, provided by their middle and senior managers, to the respective counterparts in the NPO being supported. As mentioned before, South Africa could leverage on existing legislation to develop their partnership portfolio, to engage strategic partners to enable them to increase their organisational learning capability.

**Step 3: Risk-taking**

One of the major discussions on the agenda of the World Economic Forum, which took place in Davos in 2015, revolved around the development of impact investing. South Africa has already launched one of the first socially responsible investment indexes at the Johannesburg Stock Exchange. Furthermore, many
argued that enterprise development policies implemented in the new BEE Scorecard might be interpreted as a vehicle to facilitate impact investing. Social enterprises, with all that this definition comprises, hold the potential to become the main beneficiaries of such capital investment.

However, the major limiting factor for NPOs to tap into such capital is the lack of a commonly agreed upon standard to measure the value for money, generated through their activities. This limits their potential to tap into funds, and, even more, it limits their capacity to evaluate the social and economic risk of venturing into new spaces. Social enterprises focus their innovative effort on developing unique fund-raising strategies and their need for financial sustainability, which affects the operational efficiency and strategies of the organisation (Weerawardena, McDonald & Mort; 2010).

Adopting appropriate tools for risk-assessments would support NPOs in identifying their ideal level of risk-taking and use such results to drive and maintain a balance in their hybrid activities. From an external perspective, risk-assessment tools would pave the way for NPOs to offer measurable return on investment to financial capital as well as return on social investment, based upon a greater number of diverse indicators.

Developing and implementing such measures would be the first step necessary to lobby for the development of specific legal provisions and fiscal policies that could support the establishment and the growth of social enterprises, recognised as different entities from common for-profit organisations or NPOs.

5.8.2 Recommendations for policy development to enhance social innovation

Legislations and regulations were identified in literature as enablers or constraints to social innovation (Grimm et al., 2013). It is therefore of paramount importance that, if policy makers aim at fostering social innovation, they develop systemic conditions to enhance it.
Recently, economists started arguing against the imperative use of Gross Domestic Product (GDP) as a measure for economic growth, hence social development, of a society (Urama & Acheampong, 2013). Nevertheless, it is commonly agreed that in order to foster any form of social development and advancement, GDP is needed to be able to measure economic growth, so to inform decision-making processes with objective data. Therefore, Porter, Stern and Green (2013) presented a new index aimed at measuring social development, beyond the numbers provided by GDP. Thus, the social progress of a country should be benchmarked on the measures of three pillars, first basic human needs (nutrition, basic medical care, water, sanitation, shelter, personal safety). The second is foundation of wellbeing (access to basic knowledge, access to information and communication, health and wellness, ecosystem sustainability) and third opportunity (personal rights, personal freedom and choice, tolerance and inclusion, access to advanced education).

Adopting this new index to evaluate the impact of policies would directly affect social enterprises, and NPOs in general, as well as the whole economic ecosystem, particularly in a context like the South African one, characterised by the implementation of BEE policies as drivers for social-redress and economic growth. This measurement could rapidly increase the legitimacy recognised by social enterprises and hybrid NPOs, as valuable contributors to the mainstream economic development, measured through indicators of the overall societal progress instead of the movement of capital and production.

Additionally, this approach could be the missing piece to implement the newly revised BEE scorecard successfully, fostering change in spite of the ‘ticking boxes’ approach. The index would embed BEE scores into evidence-based social development measurement. This, in turn, would support establishing effective partnerships and collaborations across sectors, facilitating partnership among corporate NPOs and government.
5.9 Suggestions for further research

Research in the field of SE is context sensitive. The findings of this study suggest that future research should investigate the peculiarities of this growing sector, with a particular focus on its characteristics in developing economies.

Empirical studies in particular, should investigate the dynamics of the social innovation process through longitudinal observations, to generate a better understanding of its phases and the organisational or environmental factors that might enhance it.

Furthermore, future research should investigate the matter of applying a different ontological approach that allows focusing on the actor and on institutions. Critical realist research observes connections between phenomena in the ‘actual’ domain, provides a hypothetical model and tests the relation (Leca & Naccache, 2006). Critical realism assume a stratified ontology, whereby events and processes belong to different strata of society, characterised by different properties. This approach accounts for the importance of context and discourse analysis to understand the effects of institutions on actions (Fairclough, 2005). Archer (1995, as cited in Mole & Mole, 2010), proposed a critical realist framework whereby agents are reflexive and can learn from their mistakes and from their interaction with the structures of the society.

Accordingly, the methodology for the study should also include qualitative components, to investigate more deeply hidden mechanism at an institutional level. Furthermore, from such analysis, new variables that are relevant to the discourse of OLC may emerge, leading to the identification of a new scale that could better measure organisational learning capability in hybrid organisations.

This research focused on the opinions of social entrepreneurs and personnel of hybrid social enterprises, whereas it may be of interest to study the capacity for social innovation of an organisation from the local population’s perspective, as they represent the demand side and they understand the unmet social needs that should be met by the social venture (Urbano et al., 2010).
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APPENDIX A: Consistency matrix

To analyse the relation between elements of capability for organisational learning capability and the capability of South African Hybrid NPOs to create social innovation.

<table>
<thead>
<tr>
<th>Sub-problem</th>
<th>Literature Review</th>
<th>Hypotheses</th>
<th>Source of data</th>
<th>Type of data</th>
<th>Analysis</th>
</tr>
</thead>
</table>
| Analyse the relation between experimentation and capability for social innovation | Chiva et al. (2007)  
Weick & Westley, (1996)  
Eikenberry, (2009)  
Eikenberry & Kluver, (2011)  
Chalmers & Balan-Vnuk, (2013) | **Hypothesis 1:**  
There is a positive relation between experimentation and capability for social innovation | 7 Likert-scale  
Questionnaire item 1 & 4  
Questionnaire item 17 - 27 | Ordinal | Multiple-regression.  
If the number of responses was sufficient, SEM |
| Analyse the relation between risk taking and capability for social innovation | Covin & Slevin, (1998)  
Hull & Lio, (2007)  
Mulgan, (2006)  
McDonald, (2007)  
Hoogendoorn & Pennings, (2011) | **Hypothesis 2:**  
There is a positive relation between risk taking and capability for social innovation | 7 Likert-scale  
Questionnaire item 2, 6 & 8  
Questionnaire item 17 - 27 | Ordinal | Multiple-regression.  
If the number of responses was sufficient, SEM |
To analyse the relation between elements of capability for organisational learning capability and the capability of South African Hybrid NPOs to create social innovation.

<table>
<thead>
<tr>
<th>Sub-problem</th>
<th>Literature Review</th>
<th>Hypotheses</th>
<th>Source of data</th>
<th>Type of data</th>
<th>Analysis</th>
</tr>
</thead>
</table>
| Analyse the relation between interaction with the environment and capability for social innovation | Chesbrough, (2003)  
Chalmers & Balan-Vnuk, (2013)  
Lettice & Parekh, (2010)  
Moore & Westley, (2011) | Hypothesis 3: There is a positive relation between the interaction with the environment and the capability for social innovation | 7 Likert-scale  
Questionnaire item 3, 5, 7, & 10  
Questionnaire item 17 - 27                                                      | Ordinal       | Multiple-regression. If the number of responses was sufficient, SEM       |
| Analyse the relation between dialogue and capability for social innovation | Seelos & Mair, 2012  
Chalmers & Balan-Vnuk, 2013 | Hypothesis 4: There is a positive relation between organisational dialogue and the capability for social innovation | 7 Likert-scale  
Questionnaire item 9, 11, 13 & 15  
Questionnaire item 17 - 27                                                      | Ordinal       | Multiple-regression. If the number of responses was sufficient, SEM       |
| Analyse the relationship between participative decision-making and capability for social innovation | Ostrower, Stone, Powell & Steinberg, (2006)  
Dougherty & Hardy, (1996)  
Chalmers & Balan-Vnuk, (2013) | Hypothesis 5: There is a positive relation between participative decision-making and the capability for social innovation of NPOs | 7 Likert-scale  
Questionnaire item 12, 14, 16  
Questionnaire item 17 - 27                                                      | Ordinal       | Multiple-regression. If the number of responses was sufficient, SEM       |
APPENDIX B: Research instrument

Our South African society is faced with widespread challenges and disparities. As a non-profit manager or social entrepreneur, you are increasingly exposed to the opportunity to develop and implement social innovative solutions that can contribute to redressing these gaps. However, social sector organisations do not necessarily understand how to foster an environment that enables the continuous internal innovation to create such solutions.

As a Master’s student at Wits Business School, I am therefore developing a research study on organisational learning and social innovation among South African non-profit organisations. This will also serve to complete my Master of Management focused on Entrepreneurship and New Venture Creation. Your valuable contribution will enable me to proceed with the study for the benefit of organisations like yours.

This questionnaire is completely anonymous and any information obtained from the survey will only be used for my research. No individual person will be affected in any way by any responses. I hope, however, at the end of the research, to be able to offer constructive suggestions to practitioners who, as you do, work towards establishing a better South Africa.

However, you can opt out if you feel unable to continue this survey.

Thank you in anticipation for your time and attention.

This survey is anonymous and the information obtained is confidential. Please indicate your acceptance, or refusal, to complete the survey.

☐ I agree to continue this survey
☐ No, I do not agree to continue with this survey
Please indicate to what extent do you agree or disagree with the following statements by selecting between 1 (Strongly disagree) and 7 (Strongly agree)

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<tbody>
<tr>
<td>1.</td>
<td>We are encouraged and supported to present new ideas.</td>
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<td>2.</td>
<td>We pilot completely new projects.</td>
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<td>3.</td>
<td>We collect, bring back, and report information about community development activities.</td>
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<td>4.</td>
<td>We feel encouraged to generate new ideas</td>
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<td>5.</td>
<td>There are systems and procedures for receiving, collating and sharing information from outside the organisation.</td>
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<td>6.</td>
<td>We often pilot new ideas</td>
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<td>7.</td>
<td>We collect, bring back, and report information about fashion in the community.</td>
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<td>8.</td>
<td>We are encouraged to take risks in this organisation.</td>
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<td>9.</td>
<td>We express different opinions in this organisation.</td>
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<td>10.</td>
<td>We are encouraged to interact with the environment (competitors, customers, technological institutes, universities, suppliers).</td>
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<td>11.</td>
<td>Managers facilitate communication in the organisation.</td>
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<td>12.</td>
<td>Organisational policies are significantly influenced by our opinions.</td>
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<td>13.</td>
<td>There is a free and open communication within my work group.</td>
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<td>14.</td>
<td>We feel involved in organisational decisions.</td>
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<td>15.</td>
<td>Cross-functional teamwork is a common practice here.</td>
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<td>16.</td>
<td>Managers in this organisation frequently involve employees in important decisions.</td>
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<td>17.</td>
<td>We use different sources of ideas to develop social projects.</td>
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<td>18.</td>
<td>We collaborate with different partners to design social projects.</td>
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<td>19.</td>
<td>We obtain funds for social projects from few sources.</td>
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<td>20.</td>
<td>We use different tools to measure our projects.</td>
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<td>21.</td>
<td>We intervene in communities through different approaches</td>
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<td>22.</td>
<td>We share reports of achievements of our projects through different channels.</td>
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<td>23.</td>
<td>We improve our organisation by delivering social projects</td>
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<td>24.</td>
<td>Our projects make changes in different social sectors.</td>
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<td>25.</td>
<td>Beneficiaries participate in the project of our organisation.</td>
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<td>26.</td>
<td>We partner with different organisations in delivering social projects.</td>
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<td>27.</td>
<td>Our projects are financially sustainable.</td>
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</table>
The last section asks for a few demographic details. These are used exclusively for research purposes across the entire sample of people responding, and in no way are meant to identify you or be used in an individual analysis involving yourself.

28. For how long have you been working in non-profit organisation
   - Less than 12 months
   - 1-3 years
   - 4-5 years
   - more than 6 years

29. What is your highest completed level of education? (Note: if you started studying at a certain level and did not finish, please do not tick that level)
   - Grade 10
   - Matric
   - Undergraduate Diploma
   - Honors Degree
   - Master or PhD

30. Please indicate your gender
   - Male
   - Female

31. Which of the following would best describe your job level?
   - Senior Manager
   - Project Manager
   - Social Entrepreneur
   - Consultant
   - Field worker

This is the end of the survey. If you click “next” below, then you cannot come back and edit the information.

- I want to end this survey

Thank you!
APPENDIX C: Construct validity of theoretically derived scale

Table 31: Correlation matrix of theoretically derived scale

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>Std Dev</th>
<th>Cronbach's alpha*</th>
<th>1</th>
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<th>4</th>
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<tr>
<td>EXP1</td>
<td>5.81</td>
<td>1.37</td>
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<td>EXP2</td>
<td>5.79</td>
<td>1.36</td>
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<td>RT1</td>
<td>5.35</td>
<td>1.46</td>
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<td>RT2</td>
<td>5.24</td>
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<td>RT3</td>
<td>4.84</td>
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<td>ENV1</td>
<td>5.80</td>
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<td>ENV2</td>
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</table>

*The value indicates Cronbach’s alpha of OLC measurement scale if the variable is deleted

**The square highlights the group of variables that should have the highest inter-item correlation, since they are expected to be measuring the same construct.
APPENDIX D: Normal distribution of empirically derived scale dimensions for OLC

Figure 32: Normal distribution of knowledge conversion

Figure 33: Normal distribution of error openness & Ri
Figure 34: Normal distribution of empowerment

Figure 35: Normal distribution of organisational dialogue
Figure 36: Normal distribution of social innovation
APPENDIX E: ANOVA test of control variable

Table 32: The Overall ANOVA Test in SAS for Tenure*SI

<table>
<thead>
<tr>
<th>Source</th>
<th>DF</th>
<th>Sum of Squares</th>
<th>Mean Square</th>
<th>F Value</th>
<th>Pr &gt; F</th>
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<td>3,25</td>
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<td>82,28</td>
<td>0,73</td>
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</tr>
<tr>
<td>Corrected Total</td>
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<td>101,78</td>
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</table>

<table>
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<th>Pr &gt; F</th>
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<td>0,09</td>
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<table>
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<td>0,72</td>
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</table>

| Parameter      | Estimate | Standard Error | t Value | Pr > |t| |
|----------------|----------|----------------|---------|------|------|
| Intercept      | 6.12     | 0.44           | 13.96   | <.0001|
| TENURE 1       | -0.56    | 0.22           | -2.53   | 0.01 |
| TENURE 2       | -0.20    | 0.23           | -0.86   | 0.39 |
| TENURE 3       | -0.30    | 0.35           | -0.85   | 0.40 |
| TENURE 4       | 0.00     | .              | .       | .     |
| EDUCATION      | -0.12    | 0.09           | -1.32   | 0.19 |
| GENDER         | -0.21    | 0.09           | -2.40   | 0.02 |
| POSITION       | 0.02     | 0.06           | 0.36    | 0.72 |
Figure 37: The ANOVA Plot for Tenure*SI
Table 33: The SAS Tukey pairwise comparison for Tenure*SI

| TENURE | SI  | Standard Error | Pr > |t|   | LSMEAN Number |
|--------|-----|----------------|------|----|---------------|
| 1      | 5,17| 0,12           | <.0001 | 1  |               |
| 2      | 5,53| 0,15           | <.0001 | 2  |               |
| 3      | 5,43| 0,31           | <.0001 | 3  |               |
| 4      | 5,73| 0,18           | <.0001 | 4  |               |

Pr > |t| for H0: LSMean(i)=LSMean(j)
Dependent Variable: SI

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<tr>
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Table 34: The Overall ANOVA Test in SAS for Education*SI

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<th>SI Mean</th>
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<td>0,00</td>
<td>0,01</td>
<td>0,94</td>
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| Parameter    | Estimate | Standard Error | t Value | Pr > |t|
|--------------|----------|----------------|---------|-------|
| Intercept    | 4,65     | 0,48           | 9,72    | <.0001|
| TENURE       | 0,18     | 0,07           | 2,46    | 0,02  |
| EDU 1        | 0,66     | 0,74           | 0,88    | 0,38  |
| EDU 2        | 0,57     | 0,43           | 1,32    | 0,19  |
| EDU 3        | 0,52     | 0,42           | 1,23    | 0,22  |
| EDU 4        | 0,35     | 0,44           | 0,79    | 0,43  |
| EDU 5        | 0,00     | .              | .       | .     |
| GENDER       | -0,23    | 0,09           | -2,52   | 0,01  |
| POSITION     | 0,00     | 0,06           | 0,08    | 0,94  |
Figure 38: The ANOVA Plot for Education*SI
### Table 35: The SAS Tukey pairwise comparison for Education*SI

| EDUCATION | SI | LSMEAN | Standard Error | Pr > |t| | LSMEAN Number |
|-----------|----|--------|----------------|------|---|----------------|
| 1         | 5.58 | 0.62 | <.0001 | 1 |
| 2         | 5.49 | 0.12 | <.0001 | 2 |
| 3         | 5.45 | 0.14 | <.0001 | 3 |
| 4         | 5.28 | 0.19 | <.0001 | 4 |
| 5         | 4.92 | 0.40 | <.0001 | 5 |

### Least Squares Means for effect EDUCATION

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<td>0.9024</td>
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<td>0.7335</td>
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<td>0.932</td>
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Table 36: The overall ANOVA Test in SAS for JOB*SI

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R-Square

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Type I SS

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Type III SS

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<td>4,24</td>
<td>1,06</td>
<td>1,50</td>
<td>0,21</td>
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</tbody>
</table>

Parameter Estimate Standard Error t Value Pr > |t|

| Parameter     | Estimate | Standard Error | t Value | Pr > |t| |
|---------------|----------|----------------|---------|------|---|
| Intercept     | 5,46     | 0,29           | 18,85   | <.0001|
| TENURE        | 0,16     | 0,07           | 2,11    | 0,04 |
| EDUCATION     | -0,07    | 0,10           | -0,76   | 0,45 |
| GENDER        | -0,21    | 0,09           | -2,30   | 0,02 |
| POSITION 1    | -0,18    | 0,27           | -0,64   | 0,52 |
| POSITION 2    | -0,10    | 0,20           | -0,52   | 0,61 |
| POSITION 3    | 0,42     | 0,28           | 1,49    | 0,14 |
| POSITION 4    | -0,52    | 0,35           | -1,51   | 0,13 |
| POSITION 5    | 0,00     | .              | .       | .    |
Figure 39: The ANOVA Plot of Position*SI
### Table 37: The SAS Tukey pairwise comparison for POSITION*SI

| POSITION | SI LSMEAN | Standard Error | Pr > |t| | LSMEAN Number |
|----------|-----------|----------------|-------|---|----------------|
| 1        | 5,290     | 0,220          | <.0001 |   | 1               |
| 2        | 5,361     | 0,146          | <.0001 |   | 2               |
| 3        | 5,889     | 0,258          | <.0001 |   | 3               |
| 4        | 4,941     | 0,311          | <.0001 |   | 4               |
| 5        | 5,465     | 0,133          | <.0001 |   | 5               |

#### Least Squares Means for effect POSITION

Pr > |t| for H0: LSMean(i)=LSMean(j)

<table>
<thead>
<tr>
<th>i/j</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
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<td>0,7363</td>
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</tr>
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<td>4</td>
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<tr>
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<td>0,9856</td>
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<td>0,5553</td>
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</tr>
</tbody>
</table>
APPENDIX F: Fit diagnostic for effects of OLC on social innovation

Figure 40: Fit Diagnostics for effects of knowledge conversion on social innovation
Figure 41: Residual by regressor for effects of knowledge conversion
Figure 42: Fit diagnostic for effects of Risk Taking on SI
Figure 43: Residual by regressor for effects of Risk Taking
Figure 44: Fit Diagnostic for effects of Organisational Dialogue on Social Innovation
Figure 45: Residual by regressor for effects of organisational dialogue
Figure 46: Fit diagnostic for effects of participative decision-making on social innovation.
Figure 47: Residuals by regressor for effects of participative decision-making
## APPENDIX G: Exploratory factor analysis results for OLC

**Table 38: Comparison of EFA factor loading for OLC**

<table>
<thead>
<tr>
<th>Rotated Factor Pattern (Std Reg. Coefficients)</th>
<th>Rotated Factor Pattern (Std Reg. Coefficients)</th>
<th>Rotated Factor Pattern (Std Reg. Coefficients)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Factor1</td>
<td>Factor2</td>
<td>Factor3</td>
</tr>
<tr>
<td>PART2</td>
<td>0.85</td>
<td>0.03</td>
</tr>
<tr>
<td>PART3</td>
<td>0.81</td>
<td>-0.15</td>
</tr>
<tr>
<td>ENV2</td>
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<td>-0.16</td>
</tr>
<tr>
<td>DIAL3</td>
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<td>0.32</td>
</tr>
<tr>
<td>ENV1</td>
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</tr>
<tr>
<td>ENV4</td>
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<td>0.32</td>
</tr>
<tr>
<td>EXP1</td>
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<td>0.88</td>
</tr>
<tr>
<td>EXP2</td>
<td>0.01</td>
<td>0.78</td>
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<tr>
<td>DIAL1</td>
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<td>0.61</td>
</tr>
<tr>
<td>DIAL2</td>
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<td>0.60</td>
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<tr>
<td>DIAL4</td>
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<td>0.47</td>
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<tr>
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<td>0.32</td>
</tr>
<tr>
<td>RT2</td>
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<td>0.21</td>
</tr>
<tr>
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<tr>
<td>RT3</td>
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<td>-0.16</td>
</tr>
<tr>
<td>ENV3</td>
<td>0.27</td>
<td>-0.08</td>
</tr>
</tbody>
</table>

*Deleting ENV3*