Organisational social capital and social innovativeness of Australian social enterprises

A thesis submitted in fulfilment of the requirements for the degree of Doctor of Philosophy

WMPG Chamindika Weerakoon

Master of Business Administration (MBA)
Bachelor of Commerce (First Class Honours)

University of Peradeniya, Sri Lanka

School of Management
College of Business
RMIT University

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DECLARATION

I certify that except where due acknowledgement has been made, the work is that of the author alone; the work has not been submitted previously, in whole or in part, to qualify for any other academic award; the content of the thesis is the result of work which has been carried out since the official commencement date of the approved research program; any editorial work, paid or unpaid, carried out by a third party is acknowledged; and, ethics procedures and guidelines have been followed.

WMPG Chamindika Weerakoon
Melbourne, Australia
31 July 2018
In memory of

my late father

Mr. R. B. Weerakoon
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up, I saw her beautiful and glittering eyes which gave me a hope, a target and the most needed energy.

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Chamindika Weerakoon
At the School of Management, RMIT University, Melbourne, Australia
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ABSTRACT

Given the paucity of studies examining integrated mediatory mechanisms on the organisational social capital and social innovativeness relationship, this thesis questions “In what ways, if any, do organisational social capital, opportunity-motivation-ability factors and knowledge creation explain social innovativeness of Australian social enterprises?” Building on social capital theory, knowledge creation theory, dynamic capability view and the concept of firm-level innovativeness, a conceptual model was built to test nine hypotheses. Embracing pragmatism, this thesis addressed the overarching research question with a mixed method approach comprised of a predominant survey design and a supplementary qualitative analysis of illustrative social enterprise examples. A pre-tested and pilot tested survey questionnaire was used to collect data from 112 managerial level employees of Australian social enterprises registered in the Social Trader’s Social Enterprise Finder Database. Hypothesised relationships were tested with nested model comparisons employing path analysis of structural equation modelling.

Results demonstrated that nearly 71% of the Australian social enterprises tested rated high on social innovativeness, indicating higher openness of organisational culture to new ideas in pursuing their social mission. Qualitative content analysis further uncovered that these innovative organisational cultures of the social enterprises reflected on market focus, communication, learning and development and participative decision-making. Path analysis revealed that structural and cognitive social capital indirectly influence innovativeness of social enterprises through the sequential mediation of opportunities and abilities to knowledge exchange, and knowledge creation. Cognitive social capital was found to have a direct effect on both knowledge creation and innovativeness. Accordingly, the relationship between structural social capital and social innovativeness provides evidence for a full mediation while
Organisational Social Capital and Social Innovativeness

a partial mediation is taken place in between cognitive social capital and social innovativeness. Relational social capital has no relationship with opportunity-motivation-ability factors, knowledge creation and innovativeness. Opportunity-motivation-ability factors interrelated with each other and opportunities to knowledge exchange is the key enabler of this interrelationship.

As a managerial implication, these findings suggest that for social enterprise managers, higher level of opportunities to knowledge exchange will increase the motivation and ability to knowledge exchange and combine, which in turn will lead to knowledge creation underlying innovativeness. Reinforcing shared vision will maintain a higher social innovativeness through improved resource sharing opportunities facilitated by common understandings. An important implication of these significant findings to organisational social capital scholars is to consider the inclusion of all the three dimensions of organisational social capital in conceptualising social capital. Another implication is to consider the interrelationship among the three dimensions in modelling organisational social capital. These findings make a useful implication to knowledge management scholars to consider the application of opportunity-motivation-ability factors as a set of functional variables to explain knowledge creation. Further, the significant thesis findings highlight the promising applicability and importance of conceptualising firm-level innovativeness as an aspect of organisational culture. Future research can confirm the study results with larger population samples, examine the effects of interrelationship among the social capital dimensions and test the moderation effects of social mission on the relationship between organisational social capital and innovativeness.

By clarifying the mechanism between organisational social capital and social innovativeness of Australian social enterprises, this thesis model contributes to a richer understanding of the organisational social capital theory of innovativeness from a strategic perspective. Further, the
rigorous demonstration of the mechanism of developing innovativeness extends the organisational social capital and innovativeness relationship into a new, previously overlooked application area, the social enterprise context. This theory testing at the intersection expands the boundaries of underpinning conceptual domains.

**Keywords:** innovativeness, organisational social capital, knowledge creation, social enterprise, opportunity-motivation-ability, Australia
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<tr>
<td>AGFI</td>
<td>adjusted goodness of fit index</td>
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<td>AVE</td>
<td>average variance extracted</td>
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<td>CFA</td>
<td>confirmatory factor analysis</td>
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<tr>
<td>CFI</td>
<td>comparative fit index</td>
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<tr>
<td>CSC</td>
<td>cognitive social capital</td>
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<tr>
<td>EFA</td>
<td>exploratory factor analysis</td>
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<tr>
<td>NCEC</td>
<td>Nundah Community Enterprises Co-operative</td>
</tr>
<tr>
<td>NFI</td>
<td>normed fit index</td>
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<tr>
<td>OLS</td>
<td>ordinary least square</td>
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<td>OSC</td>
<td>organisational social capital</td>
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<td>RMSEA</td>
<td>root mean square error of approximation</td>
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<td>RSC</td>
<td>relational social capital</td>
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<td>SE</td>
<td>standard error</td>
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<td>SEM</td>
<td>structural equation model</td>
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<tr>
<td>SD</td>
<td>standard deviation</td>
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<tr>
<td>SRMR</td>
<td>standardised root-mean square residual</td>
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<td>SSC</td>
<td>structural social capital</td>
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<td>VIF</td>
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PUBLICATIONS


CHAPTER 1: INTRODUCTION

1.1 OBJECTIVE

The purpose of this chapter is to provide a gestalt of the thesis. Firstly, the background of the thesis is explained, linking to the research problem. Secondly, the research questions and objectives are presented. A detailed clarification of the significance, scope and limitations of the thesis are presented. Finally, key definitions and the methodological approach taken by the thesis are elucidated briefly.

1.2 BACKGROUND OF THE STUDY

Firm-level innovativeness is a main competency ensuring the adaptation to diverse demands of the rapidly changing business environment and driving firms towards competitive advantage (2016). It becomes a prerequisite for the survival and success of an organisation (Rhee, Park & Lee, 2010) as it encourages entry into new areas, renews the presence in existing domains and considers novel possibilities (Cho & Pucik, 2005). Therefore, understanding innovativeness of organisations is crucial to managers (Quintane, Mitch Casselman, Sebastian Reiche & Nylund, 2011).

A majority of the innovative activities of firms depend on social capital (Sanchez-Famoso, Maseda & Iturralde, 2014). Therefore, the literature often recognises the importance of social capital linking to innovation (e.g. Dakhli & De Clercq, 2004; McFadyen & Cannella Jr, 2004a; Sanchez-Famoso, Iturralde & Maseda, 2015; Smith, Collins & Clark, 2005). Despite the enduring theoretical and practical insights emanating from these studies, the literature suffers from a few shortcomings.
These studies have generated mixed findings (e.g. Dakhli & De Clercq, 2004; McFadyen & Cannella Jr, 2004a; Sanchez-Famoso et al., 2015; Smith et al., 2005) often viewing organisational social capital as a “black box of producing innovation” rather than an investigation of the “mediatory processes and capabilities” which transform knowledge into innovation (Filieri & Alguezau, 2014, p. 748).

Rarely does a study link social capital to firm innovativeness. Specific innovations are not the critical determinants of organisational long-term success but, rather, the overall tendency for innovation (Hult, Hurley & Knight, 2004; Siguaw, Simpson & Enz, 2006). Innovativeness and innovation are two distinctive but important components of the innovation process (Wiengarten, Fynes, Cheng & Chavez, 2013). Innovativeness is the organisational culture’s openness to innovative ideas (Hult et al., 2004). It is a behavioural tendency towards innovation which produces capabilities determining the long-term success of the organisation (Siguaw et al., 2006). Entrepreneurial orientation literature recognises innovativeness as one of the major components of entrepreneurial disposition which affects survival (Wiklund & Shepherd, 2005), growth, competitive advantage and superior performance of firms (Kraus, Rigtering, Hughes & Hosman, 2012) and the economic growth irrespective of size, age or industry (Abd-Hamid, Azizan & Sorooshian, 2015). This confirms the need of investigating innovativeness in a process perspective than an output perspective. Further, literature conceptualises the terms ‘innovation’ and ‘innovativeness’ in discrete single terms such as patent counts, number of innovations and research and development expenditure, although this output-based conceptualisation captures only a specific innovation activity of a given point in time. Therefore, a higher attention on innovation does not reflect the long-term impact and the true focus of innovation strategy.
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(3) Linking to the first and second points, there is a limited understanding of the mechanisms through which innovativeness can be enhanced and facilitate improved performance outcomes in organisations (Kyrgidou & Spyropoulou, 2013). Research on innovative behaviours of organisations (Kyrgidou & Spyropoulou, 2013; Parra-Requena, Ruiz-Ortega, García-Villaverde & Rodrigo-Alarcón, 2015) remains inconclusive and inconsistent (Cho & Pucik, 2005; Rubera & Kirca, 2012) and largely focused on employees instead of an organisational focus (e.g. Choi, Cundiff, Kim & Akhatib, 2018; Tsai, 2018) in spite of the fact that understanding innovativeness of organisations is crucial to managers (Quintane et al., 2011).

(4) Firm-level innovativeness studies have investigated commercial and for-profit organisations whereas studies on innovation and innovativeness of social enterprises are anemic (Monroe-White & Zook, 2018). Social enterprises predominantly strive to achieve a social mission while being financially sustainable. The emerging tensions created by multiple stakeholder demands and conflicting logics of dual mission (Teasdale, 2012) and increasing competition (Choi & Choi, 2014; Jaskyte & Dressler, 2005) have led to the challenge of renewal and innovation for social enterprises. Innovativeness (Hult et al., 2004) may be the most important factor in initiating innovation activities and ultimately improving innovation outcomes in the non-profit sector (Choi & Choi, 2014) since it is considered to be a prerequisite for the survival and success of an organisation (Rhee et al., 2010). Yet, there is a “limited contribution to understanding the determinants and process of innovation and the relative innovativeness of social enterprises when compared with other organisational forms” (Doherty, Haugh & Lyon, 2014, p. 423). In addition, scholars are in a debate over the innovativeness of social enterprises: for some it is a distinguishing characteristic while others argue that it is a presumption rather an empirical demonstration (e.g. Alvord,
Brown & Letts, 2004; Barraket & Furneaux, 2012b; Borzaga & Galera, 2014; Chell, Nicolopoulou & Karatas-Ozkan, 2010; McDonald, 2007; Peredo & McLean, 2006).

Therefore, this thesis argues that firm-level innovativeness originate in employee involvement in organisational knowledge creation practices built on multiple knowledge domains (Floyd & Lane, 2000) and underpinning social apparatuses (Nahapiet & Ghoshal, 1998). Hence, it is suggested that by building relation-specific assets (De Clercq, Dimov & Thongpapanl, 2013a; Tsai & Ghoshal, 1998; Yli-Renko, Autio & Sapienza, 2001) and engaging in intensive knowledge creation activities (Li, Huang & Tsai, 2009; Liu & Lee, 2015), organisations can utilise their relational resources to enhance firm-level innovativeness. This is because innovation activities and capabilities are closely associated with internal resources of a firm and hence call for a process of creating new knowledge and ideas to generate innovation (Sanchez-Famoso et al., 2014). Organisational social capital (OSC) is a strategic asset (Yen, Tseng & Wang, 2015; Yli-Renko, Autio & Tontti, 2002) and especially, internal social capital is the foundation for collective organisational activities (Leana & Van Buren, 1999). However, OSC does not trigger knowledge resources embedded in social relationships by itself, but opportunities, motivation and abilities, which are the prerequisites of knowledge creation (Argote & Ingram, 2000; Nahapiet & Ghoshal, 1998; Riemer, 2006; Shu, Page, Gao & Jiang, 2012).

Therefore, this thesis aims to extend this line of work by conceptually relating OSC, opportunity-motivation-ability factors and knowledge creation into social innovativeness of social enterprises followed by an empirical test of proposed explanatory mechanisms. By so doing, this thesis questions, “In what ways, if any, do OSC, opportunity-motivation-abilities, and knowledge creation explain innovativeness of Australian social enterprises?” This central
research question is expanded into two sub-research questions. The following section identifies and justifies those two sub-research questions along with the thesis objectives.

1.3 RESEARCH QUESTIONS AND OBJECTIVES

The central objective of this thesis is to examine how OSC, opportunity-motivation-ability and knowledge creation explain social innovativeness in the Australian social enterprises context. The main research question identified earlier is broken down into two sub-research questions:

(1) To what extent and how are Australian social enterprises socially innovative? and (2) In what ways, if any, do opportunity-motivation-ability and knowledge creation mediate the OSC and social innovativeness relationship of Australian social enterprises? The respective justifications to these research questions are discussed below.

The structural characteristics of social enterprises have made them more likely to be vehicles of pure social innovation than other types of organisations (Borzaga & Bodini, 2014). Social enterprises provide a favourable ground for social innovation (De Souza João & Galina, 2015), with better institutional arrangements to implement, replicate and scale up (Borzaga & Bodini, 2014). Therefore, the most representative driver of social innovation is social enterprises (Habisch & Adaui, 2013; TEPSIE, 2015). Given this significance, there is a considerable interest among researchers and policy makers about the concept and practice of social enterprises.

Social enterprise research is gaining traction with a recent emphasis on the management of organisational processes instead of continuous engagement in definitional debates (Doherty et al., 2014). These recent scholarly works have primarily paid attention to broad areas such as social enterprise business models (e.g. Cooney, 2011; Wilson & Post, 2013); governance (e.g. Ebrahim, Battilana & Mair, 2014; Mair, Mayer & Lutz, 2015); strategy and performance
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management (e.g. Battilana, Sengul, Pache & Model, 2015; Liu & Ko, 2012; Lyon & Fernandez, 2012b; Pache & Santos, 2013a); and paradoxical tensions (e.g. Smith, Besharov, Wessels & Chertok, 2012; Teasdale, 2012). Despite the theoretical contribution made by these works, the understanding about the innovativeness of social enterprises is limited.

The emergence, viability and transfer of social innovation are determined by an organisational manifestation or strategic orientation towards social innovation (Glänzel, Krlev, Schmitz & Mildenberger, 2013) and are likely to be realised through an organisational base (Mulgan, Tucker, Ali & Sanders, 2007). Some scholars recognise innovativeness as an important feature of social enterprises (e.g. Alvord et al., 2004; Chell et al., 2010; Choi & Majumdar, 2015; Peredo & McLean, 2006). Other scholars argue that the social innovation produced by social enterprises has largely been presumed rather than empirically demonstrated (e.g. Barraket & Furneaux, 2012b). Moreover, TEPSIE (2015) states that there is often an implicit assumption that social enterprises are by nature new, entrepreneurial and innovative.

However, consistent with the world context for social enterprises, the Australian government recognises social enterprise activities as market-based and innovative solutions driven by a social mission to address social challenges (Department of Innovation Industry Science and Research, 2011). Victorian social enterprise strategy 2017 recognises promoting a social enterprise culture of innovation is a profound action to increase social enterprise innovation and impact of Australian social enterprise sector (Victoria State Government, 2017). However, current social enterprise research in Australia tends to focus on managerial applications in organisational settings such as social value creation as a legitimization strategy (Islam, 2017); business planning activities (Barraket, Furneaux, Barth & Mason, 2016a) and marketing practices (Miles, Verreyne & Luke, 2014). Social capital related studies have focused on community social capital and opportunities presented by social enterprises for collaboration
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and sustainability (Jenner & Oprescu, 2016). Investigating a sample of Australian social enterprises and not-for-profit organisations, Kong (2017) finds that structural capital, a component of intellectual capital, plays a key role in facilitating innovation management in social enterprises. It is essential for social enterprises to develop new capabilities and strategies to access additional benefits of social capital (Jenner & Oprescu, 2016) yet, there is a limited focus on studied addressing social capital and knowledge creation linkage to develop needed innovative capabilities. Therefore, the first thesis sub-research question is stated as:

**Sub-research Question 1: To what extent and how are Australian social enterprises socially innovative?**

By raising this first sub-research question, the current thesis extends the innovativeness concept into a new, previously overlooked application area – the social enterprise context – and calls for an advanced understanding of social innovativeness of Australian social enterprises.

Given the strategic importance of innovativeness as a prerequisite for the survival and success of an organisation (Rhee et al., 2010), several recent studies have set out to analyse the key determinants of firm innovativeness (e.g. Dunne, Aaron, McDowell, Urban & Geho, 2016; Eggers, Kraus & Covin, 2014; Kach, Busse, Azadegan & Wagner, 2016; Kyrgidou & Spyropoulou, 2013; Parra-Requena, Ruiz-Ortega, García-Villaverde & Rodrigo-Alarcón, 2015) and its effect on firm performance (e.g. Dibrell, Craig & Neubaum, 2014; Kyrgidou & Spyropoulou, 2013) in technological firms, small businesses and other commercial sectors (Rubera & Kirca, 2012). Yet, it is important to understand not simply what is necessary to foster innovativeness but also the mechanism of how it develops within the complex social enterprise setting.
The existing literature reports on the importance of social capital for innovation (Dakhli & De Clercq, 2004; McFadyen & Cannella Jr, 2004b; Sanchez–Famoso, Iturralde & Maseda, 2015; Smith et al., 2005) noting that most of the activities leading to innovation depend on social capital (Sanchez-Famoso et al., 2014). However, the understanding of the link between social capital and innovativeness is incomplete as studies have overlooked the mediatory processes and capabilities which transform knowledge into innovation. Moreover, the existing literature has not paid attention to innovativeness, firm’s openness to innovative ideas (Hult et al., 2004), which is a more critical determinant of organisational long-term success than any specific innovation (Hult et al., 2004; Siguaw et al., 2006). Innovativeness, the behavioural tendency towards innovation, creates capabilities contributing to the long-term success of the organisation (Siguaw et al., 2006). The above shortcomings in the literature limit the understanding of mechanisms through which social innovativeness can be enhanced and facilitate improved innovation outcomes. This thesis argues that OSC has no direct impact on innovativeness (Parra-Requena et al., 2015; Sankowska, 2013) and innovation (Filieri & Alguezau, 2014; Shu et al., 2012; Yli-Renko et al., 2001), whereas value creation is realised only through knowledge resource exchange and combination processes (Maurer, Bartsch & Ebers, 2011a; Nahapiet & Ghoshal, 1998). Knowledge is often generated through social interactions (Cohen & Levinthal, 1990; Kogut & Zander, 1992) and resource integration (Collinson, 2000). This thesis also argues that the mere existence of OSC does not trigger knowledge resources embedded in social relationships by itself, but opportunity-motivation-ability factors which are also considered to be the prerequisites of knowledge creation (Argote & Ingram, 2000; Nahapiet & Ghoshal, 1998; Shu et al., 2012). Therefore, the second sub-research question of the thesis asks:
Sub-research Question 2: In what ways, if any, do opportunity-motivation-ability and knowledge creation mediate the OSC and innovativeness relationship of Australian social enterprises?

By clarifying this process of developing firm-level innovativeness through OSC, opportunity-motivation-ability factors and knowledge creation, the study model contributes to a richer understanding of the OSC theory of innovativeness from a strategic perspective. Opportunity-motivation-ability forms a robust framework for identifying the essential relationships needed to manage knowledge creation, leading to innovation (Turner & Pennington, 2015). This framework has been applied in many disciplines such as entrepreneurship (García-Rodríguez, Gil-Soto, Ruiz-Rosa & Gutiérrez-Taño, 2017); tourism studies (Latip, Rasoolimanesh, Jaafar, Marzuki & Umar, 2018; Rasoolimanesh, Jaafar, Ahmad & Barghi, 2017); travel agent performance-related studies (Elbaz, Agag & Alkathiri, 2018); corporate entrepreneurship (Turner & Pennington, 2015); knowledge sharing (García-Rodríguez et al., 2017); and operations management (Raja & Frandsen, 2017; Siemsen, Roth & Balasubramanian, 2008). The sub-research objectives supporting the primary research objective and the related research problem and questions are summarised in Table 1.

1.4 SIGNIFICANCE AND THE JUSTIFICATION OF THE STUDY

This thesis conceptually integrates OSC, opportunity-motivation-ability factors and knowledge creation with social innovativeness of Australian social enterprises and empirically tests the proposed explanatory mechanisms. The underpinning approach can be identified as “mode 3” attempt in theory building at the intersection of the conceptual domains introduced by Zahra and Newey (2009, p. 1060).
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Table 1: Summary of the Research Problem, Questions and Objectives

<table>
<thead>
<tr>
<th>Overarching Research Question of the Thesis</th>
<th>Overarching Research Objective of the Thesis</th>
</tr>
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<tbody>
<tr>
<td>In what ways, if any, do OSC, opportunity-motivation-ability and knowledge creation explain social innovativeness of Australian social enterprises?</td>
<td>To examine how OSC, opportunity-motivation-ability factors and knowledge creation explain social innovativeness in the Australian social enterprises context.</td>
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Sub-research Questions and Research Objectives

<table>
<thead>
<tr>
<th>Related Specific Research Problem</th>
<th>Sub-research Questions</th>
<th>Research Objectives</th>
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<tbody>
<tr>
<td>Conceptualisation of innovation and innovativeness concepts with discrete single measures ignoring overall propensity of the organisation towards innovation by the extant literature</td>
<td>SRQ1: To what extent and how are Australian social enterprises socially innovative?</td>
<td>To determine the degree of social innovativeness of Australian social enterprises.</td>
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<tr>
<td>Debate over the innovativeness of innovativeness of social enterprises</td>
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<tr>
<td>Lack of studies on innovative behaviour of organisations</td>
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<tr>
<td>Higher attention on what fosters innovativeness instead of investigating the mechanism of developing innovativeness in complex social enterprise setting</td>
<td>SRQ2: In what ways, if any, do opportunity-motivation-ability and knowledge creation mediate the OSC and innovativeness relationship of Australian social enterprises?</td>
<td>To examine the mediatory effect of opportunity-motivation-ability and knowledge creation on the relationship between OSC and social innovativeness of Australian social enterprises.</td>
</tr>
<tr>
<td>Investigating social capital and innovation and innovativeness relationship without paying attention to mediatory processes and capabilities</td>
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<tr>
<td>Investigating the role of social capital as a black box of producing innovation</td>
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Source: Researcher
They define “mode 3” approach as “borrowing concepts/theories from one field or discipline and intersecting with those of another in a way that not only extends one or more of the intersecting theories but transforms the core of fields and disciplines of which they are a part”. Thus, the significance of this thesis can be explained in terms of five impact domains to which the thesis contributes: (1) theory development; (2) field development; (3) discipline development; (4) researcher development; and (5) external stakeholder development.

**Theory development:** The theoretical model tested in this thesis is built on social capital theory, knowledge creation theory, opportunity-motivation-ability factors and innovativeness concept. This conceptual combination explains how social innovativeness is internally developed in a social enterprise setting. Following a mixed method approach with predominantly-quantitative techniques to explain the above conceptual relationships, this thesis expands the boundaries of mainstream innovativeness concept. This is achieved by rigorously demonstrating the potential applicability of social capital theory, knowledge creation theory and opportunity-motivation-ability factors in the social enterprise context to explain social innovativeness. Gathering of evidence from social enterprise context pertinent to core concepts underpinning the thesis and showing the potential deviations through new findings support widening and enhancing the empirical generalisability of the core concepts of the thesis.

Despite innovativeness being the key determinant of social innovation diffusion (Glänzel et al., 2013), existing accounts of social innovation and social enterprises fail to deepen the understanding about innovativeness in the social enterprise context. Thus, through a ‘concept travel’ (George & Marino, 2011b) approach, this thesis re-contextualises the innovativeness concept into the social enterprise knowledge domain. Further, by building on the process view of innovativeness, this thesis highlights the need for framing firm-level innovativeness as an aspect of the organisational culture of an organisation.
**Field development:** Fields are composed of different theories and the theory development on social innovation directly contributes to the social innovation field development (Pfeffer, 1993). This thesis builds a new conceptual framework to explain the OSC and social innovativeness relationship by including opportunity-motivation-ability factors as a set of functional variables in conjunction with knowledge creation. This provides a new theoretical lens while also widening the explanatory capacity of reasoning (Zahra & Newey, 2009) the way innovativeness can be enhanced in the social enterprise context. The empirical testing of the conceptual framework uncovered new findings. For instance, the interrelationship among the opportunity-motivation-ability factors and the hegemony of opportunities to knowledge exchange among the three factors extend the current understanding about the behaviour of these factors. Therefore, the new findings together with new conceptual framework expands the current understanding of innovation management in social enterprise setting. Such a conceptual framework is important to social enterprise and social innovation field to acquire the legitimacy to the field given that social enterprise is being one of the main ways of carrying social innovations. The field of social innovation is practice-led (Mulgan, 2013) and constrained by a lack of consistent theoretical analysis (Sinclair & Baglioni, 2014). (Sartori, 1970). This thesis’s new theoretical framing develops a field-specific theory which enhances the legitimacy of the field, leading to the field’s independence (Zahra & Newey, 2009), and guides the future development of the field (Mulgan, 2013).

**Discipline development:** Advancing the current understanding of social innovativeness in the social enterprise context contributes to discipline development since there is a paucity of studies addressing the social innovation process in organisational setting (Mulgan, 2013; Phillips, Ghobadian, Money, Hillenbrand, Lee, O’Regan & James, 2015).
**Researcher development:** Rigorous execution of cross-sectional survey design supported by qualitative content analysis advances the social enterprise research methods, contributing to researcher development. Social enterprise research is dominated by qualitative case studies (e.g. Jones & Keogh, 2006; Seelos & Mair, 2005; Wallace, 1999). Social entrepreneurship studies have primarily used small samples and case study methodologies to enhance understanding about social ventures (Short, Moss & Lumpkin, 2009). Therefore, the current thesis advances the methodological approach of social enterprise research by illustrating the theory testing through a mixed method approach to enrich knowledge about social enterprise context. The conceptual framework built in this thesis provides the researchers with a strong theoretical background and a lens to work on new avenues of researching in social enterprise context.

**External stakeholder development:** With their innovation index for the Australian not-for-profit sector Give Easy (2015) stated that the innovation performance of the sector does not indicate a significant overall growth in year-on-year results and higher social innovativeness is very important, as people move away from the act of “simply donating”. The current thesis makes several important implications to practice. Especially, it suggests for social enterprise managers that knowledge creation may not trigger merely by having social relationships among organisational members but instead needs the right contextual environment (opportunities) and abilities. In addition, findings further suggest that the absence of opportunities may hinder the knowledge creation process leading to social innovativeness since abilities and motivation are determined by opportunities. Therefore, this thesis guides the social enterprise managers on the direction to be taken in enhancing social innovativeness of social enterprises.
1.5 SCOPE AND THE LIMITATIONS OF THE STUDY

As mentioned previously, the main objective of the thesis is to examine how OSC, opportunity-motivation-ability factors and knowledge creation explain social innovativeness in Australian social enterprises. The underpinning theoretical concepts of this objective are embedded in a diversified literature where the concepts have been examined in multiple levels as exhibited in Figure 1. This figure summarises the key focuses of the literature pertaining to the thesis in terms of levels of analysis. The micro level analysis generally focuses on the dynamics related to personal/individual levels (e.g. social entrepreneur). While the meso level focuses on organisational aspects (e.g. social enterprise), macro level issues generally relate to national or regional levels (e.g. social enterprise sector). However, in relation to innovativeness literature, there is a uniqueness where the meso level is about product innovativeness and the macro level addresses firm-level innovativeness. Taken together, the scope of the thesis in terms of level of analysis is limited to “organisational level”. This has been highlighted in Figure 1 with a dark-purple colour line.

The key concept addressed by the thesis is social innovativeness and it is a strategic orientation. Therefore, pursuing an individual/micro level analysis would not really illuminate the dynamics of such an orientation as the true complexity of the practice of such a strategic orientation involves the participation of multiple actors (Cajaiba-Santana, 2014). The regional/national approach is centred on macro and comparable indicators, measuring only what it can measure, but does not evaluate what it measures and offers only a generic understanding of the concept (Unceta, Castro-Spila & García Fronti, 2016). The organisational approach reflects intermediate social structure (Cajaiba-Santana, 2014) resources, and knowledge networks and explain the dynamics of the practice of social innovativeness.
**Organisational level social capital**
Organisational social capital and resources: internal and external social capital (e.g. Leana & Van Bruunm 1999); sources and uses (Obeng, 2018)

**Organisational level analysis**
Social enterprise leadership (Ila, 2018); benefits and outcomes (Fotheringham and Saunders, 2014); HRM practices (Truong, and Barraket, 2018)

**Organisational knowledge structure** (Qiu, Wang, & Nian, 2014); organisational culture’s influence (Suppiah, & Sandhu, 2011); knowledge capabilities and organisational development (Dawson, 2000)

**Regional and national level social capital**
Regional and national level social capital (e.g. Rutten & Boekema, 2007)

**Regional level/national level analysis**
Macro-institutional factors and their relevance to social enterprise innovation (Monroe-White and Zook, 2018); country models of social enterprise (Fisa & Moreno-Romero, 2015; Barraket, Douglas, Eversole, Mason, McNeill, & Morgan, 2017)

**National/regional level analysis**
Knowledge capital and regional innovation (Schiuma, & Lerro, 2008); regional knowledge management (Salonius, & Käpylä, 2013); regional development through knowledge creation (Galindo, 2007)

**Product level innovativeness**
New product development (Olson, Walker Jr, Ruekert, 1995); customer participation in product innovativeness (Fang, 2008); strategic orientations and product innovativeness (Boso, Story, Cadogan, Kadić-Maglajlić, and Micevski, 2016)

**Firm-level innovativeness**
Effects of trust (Ellonen, & Blomqvist, 2008); ethical culture (Riivari, Lämsä, & Kujala, 2012); environmental uncertainty (Uzkurt, Kumar, Kimzan, 2012)

**Individual-level social capital**
Individual network and resources embedded in them (e.g. Brehm & Rahn, 1997); bridging and bonding network effects on CEO appointments (Wiersema, Nishimura, & Suzuki, 2018)

**Individual-level analysis**
Motives of social entrepreneurs (Ghalwash, Tolba and Ismail, 2017); personality traits of social entrepreneurs (Smith, Bell, and Watts, 2014); social enterprise employee job satisfaction (Casini, Bensliman, Fossati, Degavre, and Mahieu, 2018); cognitive determinants of social entrepreneurship motives (Nicolas, Rubio, and Fernandez-Laviada, 2018)

**Individual absorptive capacity** (Lowik, Kraaijenbrink, & Groen, 2017); knowledge sharing an individual work performance (Henttonen, Kianto, & Ritala, 2016); individual knowledge and organisational knowledge (Bhatt, 2002)

**Consumer innovativeness**
Individual-level innovativeness, individual innovativeness, personal innovativeness

Source: Researcher
Further, organisational-level analysis uncovers the process dimension of social innovation (Krlev, Bund & Mildenberger, 2014). This is of greater importance since social enterprises are considered as meso level social innovations.

Since the analytical levels of innovativeness slightly differ from the rest, it is essential to note that the focus of this thesis is on firm-level innovativeness. Then, moving on to OSC, it can be noted that it has two main aspects: external social capital and internal social capital. This thesis specifically looks at internal social capital at the organisational level.

Moving on to the study context, this thesis examines the OSC and social innovativeness relationship in the Australian social enterprise setting. As mentioned previously, social enterprises are the main vehicles of carrying social innovations (Defourny & Nyssens, 2013), among many other forms of organisations such as profit oriented private companies and public service oriented government organisations. Corporations have started to participate in social innovation by recombining corporate social responsibility activities and sustainable innovation processes into corporate social innovation (Mirvis, Herrera, Googins & Albareda, 2016). Therefore, the scope of this thesis is limited to OSC and social innovativeness in Australian social enterprises.

There are multiple definitions of social enterprise depending on the context (e.g. regulatory environment of a region/country) and hence no common definition (Kerlin, 2006). The generally accepted definition, in the absence of a legal one, for Australian social enterprises is from Social Traders based on Finding Australia’s Social Enterprise Sector (FASES) research, which is the first and to date only census of social enterprises in Australia. Thus, the social enterprises in this thesis are defined accordingly and the enterprise: (1) has a defined primary social (including environmental or other public benefit) purpose and can provide evidence of
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its achievement; (2) derives a substantial portion of its income from trade; and (3) reinvests 50% or more of annual profit towards achieving its social purpose (Social Traders, 2016b).

Referring to the limitations, the thesis is confined to a cross-sectional explanatory survey design. According to Subramaniam and Youndt (2005), any measure of innovativeness should capture a temporal dimension, since innovativeness is an organisational behaviour enacted consistently over time. Although a longitudinal study could have shed insights on the causal links between OSC, knowledge creation and social innovativeness, this instead is suggested as a potential future research area of this topic.

1.6 METHODOLOGICAL APPROACH

Embracing pragmatism, this thesis adopted a mixed method approach (Creswell & Clark, 2011). Therefore, it is believed that the research question guides the approach to be taken in designing the study. Considering the merits of incorporating qualitative illustrations to answer the first sub-research question, this thesis adopted a mixed method research design. Hence, one part of the research design is built on a qualitative content analysis to derive illustrative examples of social enterprises through a content analysis (Hsieh & Shannon, 2005). The other major section of the methodology attempts to demonstrate a set of hypotheses (Judd, Smith & Kidder, 1991) in a deductive approach employing a cross-sectional explanatory survey design. This was further triggered by the fact that the overarching research question and the context of social enterprise (Buchanan & Bryman, 2009) applied in this thesis underpin a call for a survey research design. Following the nascency of the social innovation field, TEPSIE (2015) proposes that empirical survey-based data related to socially innovative organisations are timely and important in order to better understand the process of social innovation emergence and development in societies.
Therefore, the major methodological approach guiding the thesis is based on an explanatory survey design, which is arguably the most important research design (Malhotra & Grover, 1998), and is devoted to finding causal relationships among variables. This theory testing second objective was achieved through the six phases approach proposed by de Vaus (1995, pp. 18–20). The main stages of the predominantly quantitative research design are as follows.

**Phase 1:** Specifying the theory to be tested – A systematic literature review was conducted as outlined by Pittaway, Holt and Broad (2014).

**Phase 2:** Building a set of conceptual propositions – A conceptual framework was built following the review performed in Phase 1.

**Phase 3:** Restating of conceptual propositions as testable propositions – Constructs were identified, and nine hypotheses were developed.

**Phase 4:** Collecting valid and reliable data – A questionnaire was devised with existing scales (de Vaus, 1995) pre-tested and pilot tested (de Vaus, 1995; Malhotra & Grover, 1998), ensuring validity and reliability, before embarking on the main survey, which was executed following Dillman (2011) with existing measures with highly reliable track records utilised to ensure data integrity.

**Phase 5:** Analysing data – A quantitative approach was mainly employed, using regression analysis coupled with path analysis of structural equation modelling and supported by document analysis to triangulate findings (see chapters 6 and 7).

**Phase 6:** Assessing theory – Revisiting the theory while interpreting the identified patterns in the empirical data (see chapters 8 and 9).
1.7 KEY CONCEPTS

1.7.1 Organisational Social Capital

Social capital theory is based on the effects and consequences of human sociability and connectedness in their relations to individual and social structures (Tzanakis, 2013). Social capital for Bourdieu is related to the size of network (social space) and the volume of past accumulated social capital commanded by the agent. Presenting a similar definition, yet also maintaining a clear point of departure, Coleman (1990) asserts that social capital is embedded in the social structure of social relations of people. For both Coleman (1990) and Bourdieu (1986), social capital is a collective resource utilised by goal-oriented social actors. While Bourdieu (1986) sees social capital as a scarce resource, for Coleman (1990) it is a public good. Adding further complexity to the social capital definition, Putnam (1995) refers social capital to features of social organisations comprised of two types: bridging social capital and bonding social capital. This trust-based definition recognises bridging social capital as the bonds of connectedness formed across diverse social groups external to an actor, while the bonding social capital is internal to an actor. Social capital is conceptualised and operationalised at many different levels of analysis, including individual, organisational (e.g. Landry et al. 2002), inter-organisational (e.g. Kai, Jingyin & Jie, 2009) and societal (regional and national) (e.g. Junghee, Kwang & Ilmo, 2008). The focus of the thesis is on OSC, which is relatively under-researched (Leana & Van Buren, 1999).

There are multiple definitions on organisational social capital and the term OSC has been referred to different derivations of the same such as internal social capital, network-level social capital, collaborative ties, corporate social capital and relational social capital. The framework presented by Nahapiet and Ghoshal (1998) identifies three dimensions of OSC, namely structural, relational and cognitive dimensions, assuming OSC is a collection of resources
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emerged from both the structure of relationships and also the content. This is considered and recommended as the most comprehensive and robust OSC conceptual framework (Echebarria & Barrutia, 2013; Pedrini, Bramanti, Ferri & Minciullo, 2015). Therefore, the thesis defines OSC as “the sum of actual and potential resources embedded within, available through and derived from the network of relationships possessed by an individual or social unit. [Organisational] social capital thus comprises both the network and the assets that may be mobilised through that network” (Nahapiet & Ghoshal, 1998, p. 243).

1.7.2 Knowledge Creation

Knowledge creation is the process through which a piece of knowledge is acquired in one situation and applied to another (Alegre & Chiva, 2013). Knowledge creation has been conceptualised and studied with different concepts and constructs, such as knowledge acquisition and integration (Grant, 1996); initiation, implementation, ramp-up and integration (Szulanski, 1996) 1996); knowledge acquisition and exploitation (Yli-Renko et al., 2001); knowledge search (Hansen, Mors & Løvås, 2005); and mobilisation (search), assimilation and utilisation of knowledge resources (Maurer, Bartsch & Ebers, 2011b). Therefore, this thesis adapted the definition provided by Nonaka, Toyama and Konno (2000) and organisational knowledge creation is the process of making available and amplifying knowledge created by individuals, as well as crystallising and connecting it with an organisation’s knowledge system (Nonaka et al., 2000).

1.7.3 Opportunity-Motivation-Ability Factors

Opportunity-motivation-ability explain whether an environmental inducement presents opportunities to knowledge exchange; the opportunities are realistically shared among the organisational members; and the successful opportunity exploitation achieves organisational
goals (McMullen & Shepherd, 2006). Accordingly, opportunity to knowledge exchange is defined as the contexts through which knowledge creation behaviours are encouraged (Turner & Pennington, 2015). Motivation to knowledge exchange is defined as an individual or unit’s willingness to act (Rothschild, 1999; Siemsen et al., 2008). Ability deals with the capabilities within the organisational network. Ability to knowledge exchange is defined as the talent, skill or proficiency in a particular area related to the action (Rothschild, 1999; Siemsen et al., 2008). Ability concerns itself with whether an opportunity could feasibly be shared or coordinated throughout the organisational network (McMullen & Shepherd, 2006).

1.7.4 Social Innovation

Social innovation is “a novel solution to a social problem that is more effective, efficient, sustainable or just than existing solutions and for which the value created accrues primarily to society as a whole rather than private individuals” (Phills, Deiglmeier & Miller, 2008b, p. 36). Since the field is still nascent and emerging (Krlev et al., 2014) a large number of definitions have been proliferating, creating conceptual differences and complexities. The following major characteristics were identified.

a) Some scholars define social innovation as a process (e.g. Dawson & Daniel, 2010; Gerometta, Haussermann & Longo, 2005; Hochgerner, 2012; Howaldt & Schwarz, 2011; Munshi, 2010; Pol & Ville, 2009; Westley & Antadze, 2010; Young, 2011) while for others, social innovation is an outcome (e.g. Grimm, Fox, Baines & Albertson, 2013; Haugh & Kitson, 2007; Martinelli, 2012; Moulaiter, Martinelli, Swyngedouw & Gonzalez, 2005; Mulgan et al., 2007; Neumeier, 2012a; Nicholls & Murdock, 2011; Phills et al., 2008b; Swedberg, 2009b; Zapf, 1991).

b) There is a lack of consensus among scholars on what social innovation is, indicating the heavy fragmentation of the field. Although these definitions are obviously talking about
different things, they are heavily cognate within a conceptual field with a loosely defined scope (Howaldt & Schwarz, 2010).

Definitions confirm the application of this concept in multiple subject areas such as creativity research (Mumford, 2002), urban studies (Moulaert, MacCallum, Mehmood, Hamdouch & Baturina, 2013), entrepreneurship (Nicholls & Murdock, 2011; Swedberg, 2009a), welfare economics (Pol & Ville, 2009), social policy and similar public sector approaches (Borzaga & Bodini, 2014; Neumeier, 2012a), sociology (Zapf, 1991) and sustainable development (Baker & Mehmood, 2015). These definitions are varied in terms of the context that the researchers are examining and their field of expertise. Thus, avoiding discipline-specific definitions on social innovation, and aligning with the context of the thesis, a highly adapted practice-oriented definition is used in this thesis. Hence, social innovation is defined as:

\[
\text{innovative activities and services that are motivated by the goal of meeting a social need and that are predominantly developed and diffused through organisations whose primary purposes are social. (Mulgan et al., 2007, p. 8)}
\]

1.7.5 Social Innovativeness

Although extant literature has focused much on innovations, limited research has considered the propensity of organisations to engage in continuous innovation. “A firm’s long term success may rely more on an overall firm-level innovativeness that produces capabilities that spawn innovations and less on specific innovations” (Siguaw et al., 2006, p. 557). This is measured through innovativeness (Hult et al., 2004). There are multiple conceptualisations on innovativeness in various aspects of organisations. “Innovativeness relates to the firm’s capacity to engage in innovation; that is, the introduction of new processes, products, or ideas in the organisation” (Hult et al., 2004, p. 429). Based on Zaltman, Duncan and Holbeck (1973), Hult et al. further explain that innovativeness is a process and starts with openness to
innovation. “Openness includes whether the members of an organisation are willing to consider the adoption of an innovation or whether they are resistant to it” (Hult et al., 2004, p. 430). According to Mulgan (2006), innovation is conceived not only as a vehicle to maintain competitive advantage in the marketplace but also as the way to stimulate social change, contribute to growth and improve people’s lives. Such innovations are mainly delivered through social enterprises. However, there is a paucity of literature on social innovation processes taking place in social enterprises. Further, due to current challenges in economies, social enterprises necessarily need to be innovative. This requires them to engage in an innovation process which includes innovation in outlook, behaviours, strategy and operations (Chell et al., 2010). Therefore, such organisational manifestation, or the strategic orientation towards social innovation, is known as social innovativeness (Glänzel et al., 2013). In the absence of a definition on this social innovativeness, based on a “concept travelling” (George & Marino, 2011a) approach, social innovativeness is defined in this thesis by combining the definitions provided by Hult et al. (2004) and Siguaw et al. (2006). Hence, **social innovativeness is the openness of organisational culture towards innovative ideas in pursuing the social mission of the social enterprise.**

### 1.7.6 Compatibility Across the Definitions and Concepts Adopted

Given that there are multiple definitions for many of the key concepts considered in this thesis, a fair degree of attention was paid to ensure the compatibility of the definitions. Social capital, opportunity-motivation-ability, knowledge creation, innovativeness, social innovation and social enterprise are the primary concepts concerned in the thesis. In ensuring compatibility across these concepts, it was essential to frame them with an organisational level analysis in the first instance. For example, the social capital concept considered by this thesis is “OSC” although social capital literature identifies community social capital / national social capital /
Organisational Social Capital and Social Innovativeness

regional social capital and individual social capital. Out of the two main OSC definitions, Nahapiet and Ghoshal (1998)’s three dimensional (structural, relational and cognitive) definition was applied in this thesis. In relation to the innovativeness concept, literature identifies personal innovativeness, product innovativeness and consumer innovativeness in addition to firm-level innovativeness. In this organisational level analysis, social innovativeness was considered as an aspect of organisational culture and hence Hurley and Hult’s (1998) innovativeness items were used to measure social innovativeness. In conceptualising and measuring opportunity-motivation-ability and knowledge creation, the focus has been on firm-level opportunities, abilities, motivation (Collins & Smith, 2006) and knowledge creation processes (Shu et al., 2012). Further, social innovation is identified in three levels: micro, meso and macro. The meso level is represented by organisational context and social enterprise is a meso level social innovation, which is the study context of the thesis.

1.8 STRUCTURE OF THE THESIS

This section briefly presents the chapter development of the thesis. This will follow the thesis structure illustrated in Figure 2. The first chapter mainly serves the purpose of providing an overview of the thesis. The problem background, research objectives, significant contributions made and justifications to the study are initially presented and discussed in the chapter. A brief explanation of the scope of the thesis and limitations are made clear prior to the elaboration on the methodological approach taken. This predominantly quantitative thesis methodology is explicated based on de Vaus’s (1995) six-phase approach to survey research. An overview of the theoretical bases underpinning the thesis is provided by introducing the key concepts and explaining the compatibility among those concepts.
Chapter 2 elucidates the theoretical perspectives and summarises the status and arguments of the extant research on the underlying key concepts of the thesis. The relevance and applicability of a knowledge-based view of firms and the dynamic capability view are briefly discussed at the outset of the chapter. Extant research focuses and the related theoretical and practical arguments on the concepts of organisational social capital, firm-level innovativeness, knowledge creation and opportunity-motivation-ability are critically reviewed and discussed in this second section of the thesis.

**Figure 2: Structure of the Thesis**

- **Chapter 1 - Introduction**
- **Chapter 2 - Theoretical Perspectives and Extant Research on Key Concepts**
- **Chapter 3 - Social Innovation, Social Entrepreneurship and Social Enterprise Concepts and Research**
- **Chapter 4 - Research Questions, Models and Hypotheses**
- **Chapter 5 - Research Methodology**
- **Chapter 6 - Quantitative Data Analysis**
- **Chapter 7 - Illustrative Examples of Social Innovation in Australian Social Enterprises**
- **Chapter 8 - Findings and Discussion**
- **Chapter 9 - Conclusion**

**Source:** Researcher
Chapter 3 is also devoted to important theoretical clarification in relation to the nexus between social innovation, social entrepreneurship and social enterprise concepts. Given the conceptual conflation of these three concepts by previous research, this explanation is clearly made to clarify the relevance of these concepts to the current thesis and ultimately the scope of the thesis. Major attention is paid to the social enterprise concept, innovativeness of social enterprises, the Australian social enterprise sector and research, given that the Australian social enterprise sector becomes the study context of the thesis.

Chapter 4 separately discusses the development of research questions, research models and hypotheses of the thesis. An integrated conceptual model of organisational social capital and innovativeness of social enterprises is gradually built and explained through three sub-research models built in terms of the three dimensions of organisational social capital.

Chapter 5 presents the methodological approach taken by the thesis in a very detailed manner by clarifying the approaches and justification to each of the methods applied in the thesis. The methods section of the thesis clarifies the study site and the sample of the empirical study of the thesis. The measures taken to ensure validity, internal consistency and reliability of the measures and the data collection instrument are explained by clarifying the methods of performing the pre-test and the pilot test in the empirical study. Further, procedures of main survey implementation, measures taken to address data integrity and the non-response bias are explicated in detail. Data analysis of the empirical study is explained under three phases: Phase I – data preparation (missing data analysis and common method bias assessment); Phase II – item and factor examination (exploratory factor analysis and confirmatory factor analysis); and Phase III – final analysis (descriptive analysis, qualitative content analysis with three social enterprise case illustrations and hypotheses testing with regression, path analysis and nested model comparison). Under the second phase of the data analysis, construct
organisational social capital and social innovativeness

operationalisation is clarified in detail with the results of the factor analysis. In explaining the underlying methods in each of the phases, the discussion is linked to highlight the way the thesis addresses validity, reliability and data integrity.

Chapter 6 presents the quantitative data analysis. To provide a basic understanding about the studied social enterprises and respondents, a descriptive analysis on demographic and structural features is initially carried out. This analysis is supported by various graphical approaches such as bar graphs, box plots, radar and tabulation techniques. The second section of the chapter presents the main analysis of hypothesis testing. As a way of assuring the robustness of the testing given the small sample size (112 usable responses), the hypothesis testing is presented firstly with regression analysis. Then, each sub-model illustrating the relationship between organisational social capital dimensions and innovativeness is tested through path analysis, followed by testing of the integrated model of the thesis. Path analysis–based structural models were further validated by conducting nested model comparisons and the results of such alternative model comparisons are included in this chapter.

Chapter 7 is devoted to the qualitative case illustrations of three social enterprises. This analysis is mainly carried out based on the qualitative content analysis through a document analysis. The business models of three social enterprises are presented and characteristics indicating innovativeness are highlighted with qualitative case–based quotations.

Chapter 8 discusses the major findings under the two sub-research questions of the thesis at the outset of the chapter. The contribution made to the organisational social capital, knowledge creation, firm-level innovativeness and social enterprise literature are highlighted and discussed.
Chapter 9 concludes the thesis, with closing remarks along with the major implications of the findings to the research and practice of social enterprise. Further, limitations of the thesis are also presented in the second section of the chapter.

1.9 SUMMARY

This introductory chapter has outlined the research problem background, research questions, research objectives and the research design of the thesis. Given the narrow conceptualisations of the innovativeness concept; conceptual debates on innovativeness of social enterprises; higher concentration on investigating determinants of innovativeness instead of the mechanism of emerging innovativeness in organisational settings and an examination of the OSC and innovation/innovativeness relationship without paying attention to the mediatory process and capabilities, this thesis questions in what ways, if any, do OSC, opportunity-motivation-ability, and knowledge creation explain the social innovativeness of Australian social enterprises. This theoretical research question was answered by testing nine hypotheses based on survey data gathered from 112 Australian social enterprises. The next chapter explains and discusses the theoretical perspectives underpinning this thesis and extant literature on key concepts of the thesis.
CHAPTER 2: THEORETICAL PERSPECTIVES AND EXTANT RESEARCH ON KEY CONCEPTS OF THE THESIS

2.1 OBJECTIVE

The thesis examines the ways OSC, opportunity-motivation-ability and knowledge creation explain social innovativeness of Australian social enterprises. The previous chapter provided an overview of the thesis including the key concepts discussed.

The purpose of this chapter is to explain the theoretical perspectives guiding this thesis and to conduct a critical review of literature pertinent to the key concepts. This thesis is underpinned by three theoretical perspectives: social capital theory, the knowledge-based view of firms and the dynamic capability view. Firstly, this chapter explains these theoretical views and discusses their relevance to this thesis. Secondly, the literature on OSC, firm-level innovativeness, knowledge creation and opportunity-motivation-ability is critically reviewed to uncover the focal research problem of the thesis.

2.2 THEORETICAL PERSPECTIVES OF THIS THESIS

2.2.1 Social Capital Theory

Social capital is considered as a multi-level theoretical perspective given its vast potential to explain multi-level management and organisational phenomena (Payne, Moore, Griffis & Autry, 2011). Social capital theory is based on the effects and consequences of human sociability and connectedness in their relations to the individual and social structure (Tzanakis, 2013). This theoretical perspective is mainly promoted by three scholars: Putnam (1995) in political science, Coleman (1988) in sociology and Bourdieu (1986) in philosophy and
anthropology. The main explanations of the three schools of thoughts are summarised in Figure 3.

Social researchers have examined the role of trust-based social networks and cultural capital in opportunity structures pertaining to numerous contexts drawing on Bourdieu’s (1986) and Coleman’s (1988) work. Social capital for Bourdieu is related to the size of network (social space) and the volume of accumulated social capital commanded by the agent. Coleman’s (1988) work focused on the role of social capital in opportunity, social equity, poverty and development. He asserts that social capital is embedded in the social structure of social relations of people.

Figure 3: Main Social Capital Explanations

<table>
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<tr>
<td>Every individual creates and uses social capital through interaction with others</td>
<td>Social capital is a resource that emerges in family and community social organisations</td>
<td>Social capital is the universal lubricant of social relations with bridging and bonding capacities</td>
</tr>
<tr>
<td>The total of actual and potential resources linked to possession of a durable network is known as social capital</td>
<td>It is the productive and collective resources that resides in the social structure of relations</td>
<td>These are the features of organisations [...] that facilitate and coordinat[e] [...] organised forms of civic engagement and various forms of third sector services</td>
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</tbody>
</table>

Source: Researcher

For both Coleman (1990) and Bourdieu (1986), social capital is a collective resource utilised by goal-oriented social actors. Bourdieu (1986) sees social capital as a scarce resource, whereas Coleman (1990) considers it as a public good. The development of these theoretical matters has been influenced by the social network theory of individuals put forward by Granovetter (1973) initially and later by Burt (1992). However, these initial works focused less on the role of organisational social capital. Another influential scholar is Putnam (2000, p. 19), who
defines social capital as “the connections among individuals – social networks and the norms of reciprocity and trustworthiness that arise from them”. Putnam (1995) refers social capital to features of social organisations and as two types: bridging social capital and bonding social capital. This trust-based definition recognises bridging social capital as the bonds of connectedness formed across diverse social groups external to an actor, while the bonding social capital is internal to an actor. In some studies, these two are referred to as external social capital (bridging social capital) and internal social capital (bonding social capital). Putnam’s work assumes that people develop social capital through participation in voluntary associations and that such participation serves as the basis for civic engagement and healthy communities. Given this background, social capital theory is comprised of various theoretical lenses such as bridging of structural holes (Burt, 1997), strong ties and network closure (Coleman, 1988), embeddedness (Uzzi, 1999; Uzzi & Lancaster, 2003) and strength of weak ties (Granovetter, 1973). Not only that but these diverse focuses have led to the proliferation of multiple social capital definitions. Table 2 summarises some of the key definitions found in the literature. Generally, these definitions view social capital, in a broader view, as the sum of actual and potential resources generated from social relations of an actor (Adler & Kwon, 2002). At the same time, in a narrow view, the social relations of the actor are referred to social capital (Maurer et al., 2011a). Table 2 further shows that social capital literature has defined and applied the concept at the individual and collective level (Pedrini et al., 2015). At the collective level, social capital is a network-based resource (Leana & Van Buren, 1999) and a portfolio of engagement activities between an organisation and its stakeholders (Swanson 2013). At the individual level, social capital is the resources available to an individual through their personal social network of relationships (Van Der Gaag and Snijders 2003). For example, Burt (1992, p. 9) defined individual-level social capital as the “friends, colleagues, and more general contacts through whom you receive opportunities to use your financial and human capital.” At
the collective level, Putnam (1995, p. 67) defined social capital as macro level elements: “features of social organisation such as networks, norms, and social trust that facilitate coordination and cooperation for mutual benefit.”

<table>
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<tr>
<th>Authors</th>
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<tbody>
<tr>
<td>Bourdieu (1986) and Nahapiet and Ghoshal (1998, p. 243)</td>
<td>“The aggregate of the actual potential resources which are linked to possession of a durable network of more or less institutionalised relationships of mutual acquaintance or recognition”</td>
</tr>
<tr>
<td>Coleman (1988, p. S95)</td>
<td>“Obligations and expectations, information channels, and social norms”</td>
</tr>
<tr>
<td>Coleman (1988, p. 304)</td>
<td>“social organisation constitutes social capital, facilitating the achievement of goals that could not be achieved in its absence or could only be achieved at a higher cost”</td>
</tr>
<tr>
<td>Putnam (1993, p. 167)</td>
<td>“Features of social organisation, such as trust, norms, and networks that can improve the efficiency of society by facilitating coordinated actions”</td>
</tr>
<tr>
<td>Fukuyama (2001, pp. 378-379)</td>
<td>“The existence of a certain set of informal rules or norms shared among members of a group that permits co-operation among them. The sharing of values and norms does not on itself produce social capital, because the norms may be wrong ones […] The norms that produce social capital […] must substantively include virtues like trust telling, the meeting of obligations and reciprocity”</td>
</tr>
<tr>
<td>Knack and Keefer (1997, p. 1251)</td>
<td>“Trust, co-operative norms, and associations within groups”</td>
</tr>
<tr>
<td>Cooke and Wills (1999)</td>
<td>A communal property involving civic engagement, associational membership, high trust, and exchange in social networks or connections</td>
</tr>
<tr>
<td>Putnam (2000, p. 19)</td>
<td>“The connections among individual’s social networks and the norms of reciprocity and trustworthiness that arise from them”</td>
</tr>
<tr>
<td>Ostrom (2000, p. 176)</td>
<td>“The shared knowledge, understandings, norms, rules and expectations about patterns of interactions that groups of individuals bring to a recurrent activity”</td>
</tr>
<tr>
<td>Whiteley (2000, p. 450)</td>
<td>“The willingness of citizens to trust others including members of their own family, fellow citizens, and people in general”</td>
</tr>
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</table>

Source: Researcher

Therefore, taken together, there are two main branches of social capital research: structure of social ties, and tie contents. Structure of social ties is based on social structure and relationships (e.g. Bourdieu, 1986; Coleman, 1988). Tie contents is based on content dimensions such as
trust, networks and norms (Adler & Kwon, 2002; Putnam, 1995). Regardless of the extensive literature on the concept of social capital concept, and its applications and outcomes, it is a recent concept with no agreement on its origins, applications and boundaries, reflecting a pre-paradigmatic condition (Manning, 2010). In fact, the advancement of the social capital concept has been inhibited by multifaceted abstract definitions, differing theoretical perspectives and inconsistent operationalisations (Payne et al., 2011).

However, the seminal work of Nahapiet and Ghoshal (1998) increased the discussion across varying social capital perspectives. Nahapiet and Ghoshal (1998) identify three dimensions of social capital: structural, relational and cognitive social capital. This interpretation is considered to be the most influential and widely used definition in the management literature (Manning, 2010). Empirical investigations have used this conceptualisation to operationalise the social capital concept at many different levels of analysis including the individual, organisational (e.g. Landry, Amara & Lamari, 2002), inter-organisational (e.g. Kai et al., 2009) and societal (regional and national) (e.g. Junghee et al., 2008). A detailed explanation of these three dimensions is provided later in the chapter (see Section 2.4).

Recent entrepreneurship and management research has applied social capital theory in various areas of intellectual inquiry. For instance, recent work has focused on broad areas such as sustainable entrepreneurial ecosystems (Theodoraki, Messeghem & Rice, 2018), family business participation in community social responsibility (Peake, Cooper, Fitzgerald & Muske, 2017) and tourism management (Soulard, Knollenberg, Boley, Perdue & McGehee, 2018). There are some other works focusing on new types of innovation such as dark open innovation (Manning, Stokes, Visser, Rowland & Tarba, 2018); and behavioural strategic orientations such as entrepreneurial orientation and market orientation (Boso, Story & Cadogan, 2013). Another set of business and management research focuses on employee skill development and
performance. For example, social capital theory applications can be found in work related to skills in supply chain human agency (Dubey, Gunasekaran, Childe & Papadopoulos, 2018); team member exchange and performance (Farh, Lanaj & Ilies, 2017); intellectual capital in B2B services (Madhavaram & Hunt, 2017); employee mobility (Somaya, Williamson & Lorinkova, 2008) and digital network ties of entrepreneurs (Smith, Smith & Shaw, 2017).

The social enterprise and non-profit literature has also applied social capital theory widely. For instance, social capital effects on start-up non-profit organisations (Pedrini et al., 2015), sustainability (Jenner & Oprescu, 2016), conceptualisation and initial implementation of innovative social enterprises (Scheiber, 2014), innovation and innovation capability of social enterprises (Jaskyte, 2018) and volunteering (Paik & Navarre-Jackson, 2011) are some of the recent areas of focus. Therefore, social capital theory has wide applications. The current thesis applies social capital theory in an organisational perspective focusing on internal social capital of social enterprises. Organisational level social capital is relatively under-researched (Leana & Van Buren, 1999). Internal social capital is linked to social innovativeness of social enterprises in this thesis, arguing that firm-level innovativeness originates from employee involvement in knowledge creation and underlying social relationships. Hence, internal social capital facilitates knowledge creation, which subsequently transforms into social innovativeness of social enterprises.

2.2.2 Knowledge-based View of Firm

The knowledge-based view of firms has its roots in the resource-based view of firms grounded mainly in strategic management literature. Knowledge is considered as a strategic resource which allows the organisation to achieve and hold competitive advantages when it is effectively managed (Zack, McKeen & Singh, 2009). The knowledge-based view of a firm maintains that creation, integration and the utilisation of knowledge is the primary reason for the firm’s
existence (Grant, 1996; Kogut & Zander, 1992). Accordingly, a firm is considered to be a knowledge bearing entity which manages knowledge through dynamic capabilities (Kogut & Zander, 1992). Organisations inclined towards openness and trust-based values basically develop employee behaviours associated with sharing more ideas and knowledge. Consequently, they can be more innovative, responding more easily and rapidly to changes and new market opportunities (Donate & Guadamillas, 2011). The success of a firm depends not merely on the assets it maintains but on the value of intangible resources (Grant, 1996).

The recent entrepreneurship and management research has applied a knowledge-based view in multiple areas of examination such as entrepreneurial orientation and human resource outsourcing (Irwin, Landay, Aaron, McDowell, Marino & Geho, 2018), radical innovation (Xie, Wang & Zeng, 2018) and family business succession (Wang & Shiben Jiang, 2018). Studies have analysed effects such as contextual factors on knowledge exploration (Gonzalez & de Melo, 2018) and social media on knowledge sharing (Neeley & Leonardi, 2018). However, current literature provides only a limited understanding of knowledge management processes and practices of not-for-profit organisations (Cantu & Mondragon, 2016; Ragsdoll, Espinet & Norris, 2014; Rathi, Given & Forcier, 2016).

This thesis builds on the knowledge-based view given the significance of knowledge creation pertaining to firm-level innovativeness. Innovation is the most knowledge-intensive business process in an organisation (Nonaka, 1994; Nonaka & Takeuchi, 1995). Given that social enterprises are knowledge-intensive organisations (Bloice & Burnett, 2016; Lettieri, Borga & Savoldelli, 2004), a knowledge-based view can be used as an effective framework to understand the complex phenomena behind social innovativeness of social enterprises.
2.2.3 Dynamic Capability View

The dynamic capability view focuses on how firms renew their resource-based competitive advantage dynamically. Dynamic capabilities are the processes by which resources are acquired, integrated, transformed and reconfigured to create value-adding activities in organisations to face the challenges of rapidly changing environments (Teece, Pisano & Shuen, 1997). These are the deeply embedded strategic and organisational processes which integrate, reconfigure and gain/release resources (Eisenhardt & Martin, 2000). They enable firms to operate in both dynamic and stable environments. Further, Zollo and Winter (2002, p. 340) define dynamic capability as “a learned and stable pattern of collective activity” to modify operational processes and improve their effectiveness. Therefore, dynamic capability is considered as the most important construct in the strategic management of a firm. The importance of this view is much related to the application of exploring firm behaviour in turbulent environments coupled with innovation-driven competition. However, there are some critiques against this view: (1) the implicit resource base of dynamic capabilities; and (2) lack of conceptual distinction in clarifying the resources and capabilities contributing to competitive advantage.

Given the challenge for social enterprises to pursue renewal and innovation due to the tensions created by multiple stakeholder demands and conflicting logics of dual mission (Teasdale, 2012) and increasing competition (Choi & Choi, 2014; Jaskyte & Dressler, 2005), innovativeness is a way to address this challenge. Innovation is a dynamic capability driven by innovativeness (Camps & Marques, 2014). Thus, innovativeness may be the most important factor in initiating innovation activities and eventually improving innovation outcomes in the non-profit sector (Choi & Choi, 2014). Although OSC may have an impact on the innovativeness of a firm, what matters is the mechanism through which the relational resources are triggered and utilised to drive innovativeness.
Integrating the three theoretical perspectives underpinning this thesis, it is argued that firm-level innovativeness originates from employee involvement in organisational knowledge creation practices built on multiple knowledge domains (Floyd & Lane, 2000) and underpinning social apparatuses (Nahapiet & Ghoshal, 1998). Hence, by building relation-specific assets (De Clercq et al., 2013a; Tsai & Ghoshal, 1998; Yli-Renko et al., 2001) and engaging in intensive knowledge creation activities (Li et al., 2009; Liu & Lee, 2015), organisations can utilise their relational resources to enhance firm-level innovativeness. Therefore, this study aims to extend this line of work by conceptually relating OSC, opportunity-motivation-ability factors and knowledge creation into social innovativeness of social enterprises.

2.3 ORGANISATIONAL SOCIAL CAPITAL CONCEPT AND EXTANT RESEARCH

Organisational social capital is a resource embedded in social relations of an organisation and creates positive benefits for both the organisation and the people who are part of it (Leana & Van Buren, 1999). According to Inkpen and Tsang (2005, p. 151), OSC is a public good because the “members of an organisation can tap into the resources derived from the organisation’s network of relationships without necessarily having participated in the development of those relationships”. Therefore, OSC at the collective level is based on voluntary organisational affiliation networks that are formed and utilised for public causes (Son & Lin, 2008).

OSC is an important element for organisational competitiveness since it provides access to critical resources (Hitt & Duane, 2002). It also brings many other benefits and advantages to organisations such as facilitating the knowledge creation process. OSC facilitates knowledge creation (Leana & Van Buren, 1999; Tsai & Ghoshal, 1998) by providing access to relevant
knowledge (Fleming & Sorenson, 2001) and a common interest with mutual trust and appreciation of the value of others’ knowledge (Van den Hooff & de Leeuw van Weenen, 2004). Established trust, common frames of reference and shared goals make knowledge sharing effective and efficient and reduce transaction costs through high levels of team spirit (Nonino, 2013). Because of the trusted and united environment in the organisation, for instance, employee retention may be higher. Subsequently, this may lead to continuous maintenance of organisational knowledge and greater coherence of organisational actions (Cohen & Levinthal, 1990).

Given this importance of OSC for organisational performance, scholars have investigated various elements of the concept and applied various levels of analysis. OSC is comprised of two aspects: external social capital and internal social capital. External social capital is defined as the “assets and resources made available to the collective through network ties that span boundaries to other collectives, and through which the collective many benefit” (Payne et al., 2011, p. 497). A significant number of studies have addressed various aspects of social capital in relation to strategic alliances (Chung, Singh & Lee, 2000; Koka & Prescott, 2002). Moreover, external OSC has been linked to organisational performance (Khanna & Rivkin, 2001), firm dissolution (Pennings, Lee & Van Witteloostuijn, 1998) and knowledge management (Yli-Renko et al., 2001). Theoretical and empirical analysis on OSC has been performed at different levels of an organisation such as business unit level (e.g. Tsai & Ghoshal, 1998), top management team (e.g. Sanchez-Famoso, Maseda & Iturralde, 2016), team (e.g. Akhavan & Hosseini, 2016) and inter-organisational level (e.g. Kai et al., 2009).

Internal social capital is defined as the “assets and resources made available through relationships within the social structure of the collective (i.e., group or organisation) that can
be utilised by the collective” (Payne et al., 2011, p. 497). Many internal social capital studies have examined networks and their effects on various aspects of team formation and performance. For instance, network structure’s effect on team performance, performance consequences of structural holes, cross-functional teams, networks and productivity, and social networks and demography are some of the main themes linked to team performance and network relationship. Knowledge management and innovation are also among the key themes of studies examining internal OSC (e.g. Subramaniam & Youndt, 2005; Wong, 2008). These studies have examined the positive and productive interactions and relationships between members of an organisation that turn out to be fundamental in the creation and sharing of knowledge (Andrews, 2011). Another set of studies looked into effects of intra-firm social networks on various performance elements such as value creation (e.g. Tsai & Ghoshal, 1998); entrepreneurial orientation and venture performance relationship (e.g. Stam & Elfring, 2008); initial public offering (e.g. Fischer & Pollock, 2004); organisational survival (Kalnins & Chung, 2006) and firm performance (e.g. Shaw, Duffy, Johnson & Lockhart, 2005).

In conjunction with dynamic capability view, this thesis argues that it is critical that organisations develop internal processes and routines to better utilise those resources (Teece et al., 1997). Therefore, internal social capital should be aligned with organisational behaviour to enhance performance (Tasavori, Zaefarian & Eng, 2018). Internal social capital is proven to influence the performance of individuals and organizations (Leana & Van Buren, 1999) and innovative capabilities (Maurer et al., 2011b). To innovate, it is advantageous, even essential, for knowledge from different parties within an organization to be brought together (Wang, Guidice, Zhou & Wang, 2016). Although the importance of internal social capital to innovation has been widely acknowledged, more remains to be understood about how internal social capital contributes to innovation in organisations (Tasavori et al., 2018; Wang et al., 2016). Therefore, the focus of this thesis is on internal social capital.
Social capital scholars have multiple views on the emergence of social capital and its derivative resources. The framework presented by Nahapiet and Ghoshal (1998) identifies three dimensions of OSC, namely structural, relational and cognitive dimensions, assuming OSC is a collection of resources that emerged from both the structure and the content of relationships. Their conceptualisation has been the widely used interpretation in the OSC literature (see Table 3). In some scholarly work these dimensions have been named differently – for instance, social interaction, trust (e.g. Molina-Morales & Martínez-Fernández, 2010; Tantardini & Garcia-Zamor, 2015) and shared vision (e.g. Molina-Morales & Martínez-Fernández, 2010) and common goals and values (e.g. Tantardini & Garcia-Zamor, 2015). Nahapiet and Ghoshal’s framework is considered and recommended as the most comprehensive and robust OSC conceptual framework (Echebarria & Barrutia, 2013; Pedrini et al., 2015). Therefore, the thesis applies Nahapiet and Ghoshal’s Nahapiet and Ghoshal (1998) definition, which defines OSC as:

\[ \text{the sum of actual and potential resources embedded within, available through and derived from the network of relationships possessed by an individual or social unit.} \]

\[ \text{[Organisational] social capital thus comprises both the network and the assets that may be mobilised through that network. (Nahapiet & Ghoshal, 1998, p. 243)} \]

The section after Table 3 explains the three dimensions of OSC in detail, with definitions and measurement indicators.
### Table 3: Conceptualisation of Organisational Social Capital

<table>
<thead>
<tr>
<th>Source</th>
<th>Social Capital Concept</th>
<th>Focal Definition Adopted</th>
<th>Conceptualisation / Measurements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Wei (2007)</td>
<td>Corporate social capital</td>
<td>Nahapiet and Ghoshal (1998)</td>
<td>Structural dimension: the extent of frequency, affinity and numbers of ties; relational dimension – keeping promises, cooperating frankly, without selfish; cognitive dimension – effective communication for shared language, pursuing the same vision or collective goals</td>
</tr>
<tr>
<td>Jungehee, Kwang and Ilmo (2008)</td>
<td>–</td>
<td>Putnam’s Definition</td>
<td>Trust and shared objectives</td>
</tr>
<tr>
<td>Akcomak and ter Weel (2009)</td>
<td>Social capital</td>
<td>‘Generalized trust’</td>
<td>Trust as a proxy for social capital, which measures the degree of opportunistic behaviour (e.g. Knack and Keefer, 1997; Zak and Knack, 2001)</td>
</tr>
<tr>
<td>de Clercq, Thongpapanl and Dimov (2009)</td>
<td>–</td>
<td>–</td>
<td>Social interaction and trust</td>
</tr>
<tr>
<td>Sanginga, Abenakyo, Kamugisha, Martin and Muzira (2010)</td>
<td>Social capital</td>
<td>–</td>
<td>Bridging and bonding social capital</td>
</tr>
<tr>
<td>Hu and Lan (2011)</td>
<td>Internal social capital</td>
<td>Granovetter (1992) and Scholl’s (2003)</td>
<td>Structural dimension – social networks; relational dimension – conative fit (compatibility of intention to interact and either a willingness to cooperate or actual cooperation) and affective fit (first impression, perceived chemistry and sympathy)</td>
</tr>
<tr>
<td>Min Min and Huang (2011)</td>
<td>Social capital</td>
<td>–</td>
<td>Expert network ties, shared system vision, trust</td>
</tr>
<tr>
<td>Huggins, Johnston and Thompson (2012)</td>
<td>Social capital</td>
<td>Not that clear</td>
<td>Network resources – external interactions outside business environment such as informal lunch, dinner, drinks and other recreational, sporting or leisure activities</td>
</tr>
<tr>
<td>Source</td>
<td>Social Capital Concept</td>
<td>Focal Definition Adopted</td>
<td>Conceptualisation / Measurements</td>
</tr>
<tr>
<td>--------------------------------------------------</td>
<td>------------------------</td>
<td>--------------------------</td>
<td>--------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Camps and Marques (2014)</td>
<td>Social capital</td>
<td>–</td>
<td>Structural (network ties, network configurations), relational (shared vision, shared codes and languages, shared narratives) and cognitive dimensions (trust, values, norms, obligations and identification)</td>
</tr>
<tr>
<td>Cuevas-Rodriguez, Cabello-Medina and Carmona-Lavado (2014)</td>
<td>Internal and external social capital</td>
<td>–</td>
<td>Relational social capital</td>
</tr>
<tr>
<td>Hu and Randel (2014)</td>
<td>Social capital</td>
<td>–</td>
<td>Structural social capital – the frequency of communication, the strength of ties, and the time spent on communication; relational social capital – no inclination for profiting oneself at others’ expense, commitment to promises and cooperation; cognitive social capital – shared language, shared values and shared collective objectives</td>
</tr>
<tr>
<td>Filiieri and Alguezaui (2014)</td>
<td>Structural social capital</td>
<td>Conceptual paper</td>
<td>Number of ties (large vs small network size), nature of ties (strong vs weak), position in the network (central vs peripheral), configuration of the network (cohesive vs structural holes)</td>
</tr>
<tr>
<td>Hvižmáková and Urbančíková (2014)</td>
<td>Social capital</td>
<td>–</td>
<td>Trust (general and institutional trust), networks (formal and informal), civism (social norms and political engagement)</td>
</tr>
<tr>
<td>Jian and Zhou (2015)</td>
<td>Corporate social capital</td>
<td>Chen and Li (2011)</td>
<td>Longitudinal relation capital, horizontal relationship capital and social relationship capital</td>
</tr>
<tr>
<td>Lauzikas and Dailydaite (2015)</td>
<td>Social capital</td>
<td>Not clear – a conceptual paper</td>
<td>Meso level social capital – communities and associational organisations; macro level covers the governance and institutions of state; micro level involves local institutions, networks and local norms, trust and values</td>
</tr>
</tbody>
</table>
### Organisational Social Capital and Social Innovativeness

<table>
<thead>
<tr>
<th>Source</th>
<th>Social Capital Concept</th>
<th>Focal Definition Adopted</th>
<th>Conceptualisation / Measurements</th>
</tr>
</thead>
<tbody>
<tr>
<td>De Clercq and Belaustegui Gotia (2015)</td>
<td>Internal family social capital (bonding)</td>
<td>Not clearly mentioned</td>
<td>Goal congruence and trust</td>
</tr>
<tr>
<td>Sanchez-Famoso, Maseda and Iturbea (2016)</td>
<td>Internal social capital</td>
<td>Based on Nahapiet and Ghoshal (1998); Yli-Renko, Autio and Sapienza (2001)</td>
<td>Structural dimension – the extent to which group members are connected (Inkpen &amp; Tsang, 2005); relational dimension – the quality of the group members’ connections, trust and trustworthiness; cognitive dimension – the extent to which a group’s members share a common perspective or understanding (Inkpen &amp; Tsang, 2005)</td>
</tr>
</tbody>
</table>

**Source:** Collated by the researcher
2.4 DIMENSIONS OF ORGANISATIONAL SOCIAL CAPITAL

2.4.1 Structural Social Capital (SSC)

Structural social capital includes social interaction (Nahapiet & Ghoshal, 1998) and is the overall configuration and patterns of connections between people (Aslam, Shahzad, Syed & Ramish, 2013) or otherwise the properties of the social system and the ties between actors (Wasserman & Faust, 1994). Structural social capital is conceptualised in three different perspectives mainly and their respective measurements are summarised in Figure 4. Network ties (Nahapiet & Ghoshal, 1998) or social interaction ties (Tsai & Ghoshal, 1998; Yli-Renko et al., 2001) are the channels for information flows representing the breadth and strength of relationships. Opportunities for social capital transaction are created by the network ties and thus become the primary unit of social capital (Adler & Kwon, 2002).

**Figure 4: Indicators of SSC and Measurements**

<table>
<thead>
<tr>
<th>Network Ties</th>
<th>Network Configurations</th>
<th>Appropriable Organisation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Channels for information and resource flows (Tsai &amp; Ghoshal 1998).</td>
<td>Structure of the information and resource channels comprised with the properties of connectivity, density and hierarchy (Nahapiet &amp; Ghoshal 1998)</td>
<td>The existence of networks created for one purpose that may be used for another (Nahapiet &amp; Ghoshal 1998)</td>
</tr>
<tr>
<td>Measured by absence or presence of ties (Nahapiet &amp; Ghoshal 1998; Wasserman &amp; Faust 1994), degree of contact &amp; accessibility (Chow &amp; Chan 2008)</td>
<td>Measured by tie strength (Smith et al. 2005; Landry et al. 2002; Echebarria &amp; Barrutia 2013), heterogeneity (Renzulli et al. 2000) and network size (Ahuja 2000)</td>
<td>Measured by development of personal relationships to business contacts (Coleman 1988); transfer of family relationships to business contacts (Fukuyama 2000)</td>
</tr>
</tbody>
</table>

*Source: Researcher*

Network configurations indicate the structural properties of social interaction ties such as the nature of linkages, layers and the tightness of the contacts. Coleman (1988) defines
Organisational Social Capital and Social Innovativeness

appropriable organisation as the resulting continuous availability of social capital from providing source of resources from one organisation to another. In this thesis, structural social capital is primarily discussed and conceptualised in the network configuration perspective.

2.4.2 Relational Social Capital (RSC)

Most often this has been termed as trust in OSC literature and Granovetter (1992) regards it as the personal relationships people have developed with each other through a history of interaction. The positive expectations individuals have about the intent and behaviours of multiple organisational members based on organisational roles, responsibilities, experiences and interdependencies are broadly defined as the relational dimension (Akhavan & Hosseini, 2016; Maurer et al., 2011a; Nahapiet & Ghoshal, 1998).

OSC literature has often conceptualised relational social capital mainly with four aspects of social relations: trust and trustworthiness, norms, identification, and obligations and expectations (Figure 5). Trust and trustworthiness are major components of relational social capital as they are built upon relationships (Tsai & Ghoshal, 1998). It is the manager’s positive expectations about others’ motives in risk and vulnerability endowed circumstances. Trust nurtures a concentration on future conditions leading to a decline in the possibility of concerns on opportunistic behaviour of partners (Wang, Fanghui & Jinxiang, 2007).

Trust becomes a necessary element for social capital since it is the catalyst which moves relationships forward and also an outcome resulting from a productive relationship between members. Yli-Renko et al. (2001) see trust as a relationship quality by defining it as the extent to which the interaction is marked by the development of goodwill, trust and expectations of reciprocity.
When formal procedures are ineffective in innovation, norms become the guidance (Russell & Russell, 1992). The strength of the connection between social capital and an organisation is bound by norms and culture and, in not-for-profit organisations especially, the mission and tradition of the organisation set the frame of reference for its specific character (Schnurbein, 2014). Identification is also a construct of a relational dimension, in which organisational members tend to see themselves as members of a particular group or an organisation. This social identification helps individuals recognise who they are, interpret their connection to other people and understand how they should act in social situations (Kramer, 2005). The standards and norms of a particular organisation will be taken as frames of references in those circumstances by members. In some studies this has been named as reciprocity (e.g. Akhavan & Hosseini, 2016). Collective process and outcomes will be supported by this specific process (Nahapiet & Ghoshal, 1998).

Expectations developed within personal relationships are obligations. This signifies a duty or an obligation to engage in future action and also arises from frequent interaction (Coleman, 1990). In addition, sometimes obligations have been referred to as commitment and also often
explained as direct expectations developed within relationships (e.g. Wasko & Faraj, 2005). Such expectations also establish procedures and define an organisational philosophy blended with a tendency to value and respond to diversity, openness to criticism and acceptance of failures (Nahapiet & Ghoshal, 1998). Trust and trustworthiness is the main indicator used in social capital literature to conceptualise relational dimension. Further, trust is identified as a key influential variable in knowledge creation and innovation studies. Given this significance, trust and trustworthiness is used to conceptualise the relational dimension in this thesis.

### 2.4.3 Cognitive Social Capital (CSC)

This is the capacity of an organisation to share the same vision, mission and goals among its members (Chow & Chan, 2008; Inkpen & Tsang, 2005) or otherwise it is the degree to which organisational members are ready to share and define common/collective goals (Leana & Van Buren, 1999). Resources providing shared representations, interpretations and systems of meaning among parties are included in cognitive social capital (Nahapiet & Ghoshal, 1998). The constructs adopted in this study are defined in Figure 6.

![Figure 6: Indicators of CSC and Measurements](image-url)

Source: Researcher
Shared vision is the common mental model on the future state of the organisation shared by organisational members (Pearce & Ensley, 2004). It is the degree to which network members share a common understanding and approach to the achievement of network tasks and outcomes (Inkpen & Tsang, 2005, p. 153) and agree to work on common tactics or methods as an investment for a long-term relationship. Shared goals hold members together and enable common understandings (Inkpen & Tsang, 2005). The sharing of the same goal can happen through language and codes, narratives or a combination of both (Tantardini & Kroll, 2015). Goal congruence (e.g. De Clercq, Dimov & Thongpapanl, 2013b) is another term used in the literature and it is the extent to which managers across different functional areas share the same goal (Tsai & Ghoshal, 1998). Shared language and codes constitute shared cognition (Nahapiet & Ghoshal, 1998). Common understanding is thus provided by shared culture and goals, especially common language, codes and narrative such as myths, stories and metaphors providing rich sets of meanings (Nahapiet & Ghoshal, 1998; Wasko & Faraj, 2005).

2.5 EXTANT RESEARCH ON FIRM-LEVEL INNOVATIVENESS

2.5.1 Innovation Concept and Innovation Research

Innovation is a field with a long history in research and a phenomenon studied in various disciplines, with substantial importance for the development and growth of businesses. “Innovation is widely considered as the life blood of corporate survival and growth” (Zahra & Covin, 1994, p. 183). Therefore, the importance of innovation is not only limited to commercial businesses but also applicable to a wide variety of organisations and this relevance has made it a key policy and strategic issue (Baregheh, Rowley & Sambrook, 2009).

Innovation is the introduction of a new product, process, method or system (Schumpeter, 1934b). Core renewal processes of any organisation are represented by innovation since
organisations need to continuously change their offerings and delivery approaches to foster survival and growth (Bessant, Lamming, Noke & Phillips, 2005). Innovation is also interpreted as the effective application of novel products and processes benefiting organisational stakeholders (West & Anderson, 1996). “Innovation is a means of changing an organisation, whether as a response to changes in its internal or external environment or as a pre-emptive action taken to influence an environment” (Damanpour, 1991, p. 556). With a different explanation, Kimberly (1986) identifies three innovation dimensions: innovation as a process; innovation as a discrete item including, products, programs or services; and innovation as an attribute of organisations. Table 4 summarises some of the commonly used definitions in innovation literature.

A close examination of these definitions confirms the existence of two main groups (see Table 4). Some scholars define innovation as a process while for others it is an outcome. Outcome-based definitions present the traits of innovation to clarify what constitutes innovation. It seems that innovation is unusually defined as activities (Armour & Teece, 1980, p. 471) and (Terziovski, 2010, p. 894) or events (Van de Ven & Polley, 1992, p. 92) while most authors measure the innovation process as a function of its outcome. Process-based innovation definitions offer a broader view on the approach taken to create the outcome. The literature defining innovation as a process is limited (Martín-de Castro, López-Sáez, Delgado-Verde, Quintane, Mitch Casselman, Sebastian Reiche & Nylund, 2011).

While innovation research uses the introduction of new products or processes, the innovative activities of organisations (Armour & Teece, 1980; Terziovski, 2010) to define innovation, innovation diffusion (Hoffman & Roman, 1984), innovative capability (Subramaniam & Youndt, 2005) and innovation involvement (Obstfeld, 2005) are also some of the popular concepts adopted in innovation literature. Some studies use these additional concepts while just
mentioning the term innovation and without properly defining what it is. Innovation definitions overlap heavily and the diversity and number have given rise to a situation where there is no explicit and authoritative definition (Baregheh et al., 2009).

Table 4: Definitions on Innovation

<table>
<thead>
<tr>
<th>Innovation as an Outcome</th>
<th>Innovation as a Process</th>
</tr>
</thead>
<tbody>
<tr>
<td>Innovation is new knowledge and possess the characteristics of duplicability, new in the context it is introduced to, and demonstrated usefulness (Martín-de Castro et al., 2011)</td>
<td>Innovation in the context of developing economy firms includes bringing in technology and learning processes that may have been already in existence in developed economies for a considerable period of time (Chittoor, Aulakh &amp; Ray, 2015)</td>
</tr>
<tr>
<td>Innovation can be classified as process innovation and product innovation. Process innovation is composed of technology and organisation. Product innovation is composed of goods and services (Edquist’s 2004)</td>
<td>“The invention and implementation of a management practice, process, structure, or technique that is new to the state of the art and is intended to further organisational goals” (Birkinshaw, Hamel &amp; Mol, 2008, p. 825)</td>
</tr>
<tr>
<td>A new product or service, a new production process, or a new structure or administrative system (Hult et al., 2004)</td>
<td>“The innovation process in firms is a process of accumulating and creating new knowledge” (Nonaka &amp; Takeuchi, 1995, p. 510; Zahra &amp; George, 2002)</td>
</tr>
<tr>
<td>Radical change in business processes (Davenport, 1994, p. 137)</td>
<td>“Organisational innovation is often a process of creating new social connections between people and resources they carry, so as to produce novel combinations” (Obstfeld, 2005, p. 100)</td>
</tr>
<tr>
<td>“Ideas, formulas, or programs that the individuals involved perceive as new” (Marcus, 1988, p. 1)</td>
<td>“Innovation is the purposeful orchestration and directed application of organisational skills and knowledge” (Pitt &amp; Clarke, 1999, p. 21)</td>
</tr>
<tr>
<td>“An invention which has reached market introduction in the case of a new product, or first use in a production process, in the case of a process innovation” (Utterback, 1971, p. 77)</td>
<td>“Innovation development is a highly uncertain process in which entrepreneurs, with financial support from investors, undertake a sequence of events over an extended period of time to transform a novel idea into an implemented reality” (Van de Ven &amp; Polley, 1992, p. 92)</td>
</tr>
<tr>
<td>“The first or early use of an idea by one of a set of organisations with similar goals” (Becker &amp; Whisler, 1967, p. 463)</td>
<td>“... the development and implementation of new ideas by people who over time engage in transactions with others within an institutional order” (Van de Ven, 1986, p. 590)</td>
</tr>
<tr>
<td>Profit-building new and novel products, production processes, and marketing schemes” (Levitt, 1960, p. 2)</td>
<td>“The process of bringing any new problem solving ideas into use” (Kanter, 1983, p. 20)</td>
</tr>
<tr>
<td>“Any thought, behaviour or thing that is new because it is qualitatively different from existing forms” (Barnett, 1953, p. 7)</td>
<td></td>
</tr>
</tbody>
</table>

Source: Researcher
The diversity and depth of innovation research was reflected through not only the multiple definitions but also the measurements. Patent counts and derivations such as patent citations and active patents were found to be the most common indicators (Ahuja, Lampert & Tandon, 2008; Rothaermel & Hess, 2007; Shan, Walker & Kogut, 1994). Adoption of innovation (Leiblein & Madsen, 2009) was also a highly used measurement of innovation. Innovation performance of organisations is one the frequently studied elements in innovation research and several different measures have been used to operationalise the concept.

Despite the strategic importance of the innovation concept, there is an absence of a standard definition and measurement of innovation in both for-profit and non-profit sectors (Choi & Choi, 2014). This lack of a common definition undermines the nature of innovation (Zairi, 1994). One of the underlying reasons for this is the application of various levels of analysis by different studies (Danneels & Kleinschmidt, 2001). On the face of these, the usage of these definitions and measurements mount to conceptual complexity and an ambiguity. “The term ‘innovation’ is notoriously ambiguous and lacks either a single definition or measure” (Adams, Bessant & Phelps, 2006, p. 22). Although there is a large amount of research on innovation, most of it conceptualises the term ‘innovation’ in a narrow and reductionist view. For instance, while Tan, Zhang and Wang (2015) use the change of a firm’s knowledge capital, Vlaisavljevic, Cabello-Medina and Pérez-Luño (2015) measure innovation performance with new product performance with respect to products developed in networks. In a more straightforward manner with discrete terms, Kai et al. (2009) use product and technical innovation to measure innovation performance. Reflecting another aspect of measurement diversity and definitional features of innovation, Landry et al. (2002) measure products and process innovation in terms of decision to innovate and radicalness of innovation. Russell and Russell (1992) use the frequency and importance of innovation in processes, systems, structure and market application.
In addition, the different labels, categorisations and causal roles have resulted in significant discrepancies in empirical results and difficulty in their interpretation (Garcia & Calantone, 2002). For instance, innovation and innovativeness have been modelled as independent variable, dependent variable or moderator (Danneels & Kleinschmidt, 2001) depending on distinct theoretical backgrounds. It is obvious that very narrow definitions and measurements are used in an inconsistent manner to refer to the same dimension used in the literature. Defining and measuring innovation in discrete single terms doesn’t reflect the long-term impact and true focus of innovation. What is important is to focus on the general value emanating from creativity and innovation: an orientation towards risk, and the enthusiasm and pride of organisational members to commit to an aggressive innovation strategy (Amabile, 1997). The narrow conceptualisations ignore the overall propensity of an organisation to continuously innovate as an organisational objective (Siguaw et al., 2006) and therefore, specific innovations are not the critical determinants of organisational long-term success, but the overall innovation orientation. The following section focuses on clarifying the firm level innovativeness concept and theoretical and research issues related to the concept.

### 2.5.2 Firm-level Innovativeness Concept and Research

Innovativeness is the “the tendency or desire of a company to participate in support of new ideas, to novelty, creativity and experimentation in the introduction of new products or services and the creative processes of technological leadership and R&D giving as a result, new products, services or technological processes” (Lumpkin & Dess, 1996, p. 142). In a similar definition, Anderson, Potočnik and Zhou (2014) define innovativeness as the firm’s inclination to pursue new processes, products or business models. Innovativeness is also conceptualised as openness to innovation (Zaltman et al., 1973), the capacity to engage in innovative activities (Hult et al., 2004), an openness to generate new ideas (Hurley & Hult, 2000).
Organisational Social Capital and Social Innovativeness

1998) and a strategic intent on moving the organisation forward (Amabile, 1997). In some literature this is termed as ‘innovation orientation’ (Dobni, 2008; Siguaw et al., 2006). Hence, innovativeness is the organisation’s entrepreneurial and cultural orientation (Liao, Chang, Wu & Katrichis, 2011) and is a system and firm-wide orientation towards innovation (Zehir, Altindag & Acar, 2011). Given the multiple interpretations of the innovativeness concept, a citation network was derived to observe the possible knowledge clusters underpinning these different explanations (Figure 7).

This citation network identifies eight main knowledge clusters. A close examination of these clusters suggests that three main clusters (3, 4 and 6) focus on organisational innovativeness and relate to the focus of this thesis. Out of these three intellectual constellations, Cluster 3 is largely relevant, as the main emphasis of this group is built on an enterprise view focused on organisational culture. The key scholarly work on this cluster is Hult et al. (2004), who argue that “innovativeness relates to the firm’s capacity to engage in innovation; that is, the introduction of new processes, products, or ideas in the organisation” (Hult et al., 2004, p. 429).

As to Lynch, Walsh and Harrington (2010, p. 13), “organisational innovativeness is composed of a capacity and ability to innovate, whereby the necessary skills, knowledge, and capabilities are readily available to take advantage of market opportunities ahead of the competition”.

The degree of innovativeness indicates the extent to which a firm is open to novel ideas, seeks for new approaches to do things, is creative in operating methods, encourages new methods to market and possesses proactive attitude (Amabile & Conti, 1997; Calantone, Garcia & Dröge, 2003). Dotzel, Shankar and Berry (2013) conceptualised service innovativeness as the capability or propensity of introducing service innovations. Wiengarten et al. (2013) argued that innovativeness and innovation are two important components of the innovation process,
while innovativeness reflects the attitude of a business to explore new opportunities (Menguc & Auh, 2006).

In some of the literature, the term ‘innovation orientation’ is also used to refer firm-level innovativeness. For Chen, Huang and Hsiao (2010b) innovation orientation is a propensity of an organisation to develop novel combinations based on already available products, technologies or management.

From a knowledge management perspective, innovation orientation is “a multidimensional knowledge structure composed of a learning philosophy, strategic direction, and transfunctional beliefs that, in turn, guide and direct all organisational strategies and actions, including those embedded in the formal and informal systems, behaviours, competencies, and processes of the firm to promote innovative thinking and facilitate successful development, evolution, and execution of innovations” (Siguaw et al., 2006, p. 560). From a strategic management standpoint, it is a collective phenomenon of the intention to be innovative, the capacity to introduce some new product, service or idea and the introduction of processes and systems which can lead to enhanced business performance (Dobni, 2008).

Moving on to the conceptualisation of innovativeness, there are various approaches. Extant literature conceptualises innovativeness in multiple ways: (1) innovativeness inputs (e.g. research and development [R&D] expenditure, patents) and outputs (e.g. number of new products); (2) innovativeness culture (e.g. innovation orientation); and (3) radical and incremental innovations (Rubera & Kirca, 2012). Some of the main conceptualisations are summarised in Table 5.
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Figure 7: Citation Network for Innovation Orientation / Innovativeness Literature

Cluster 1 – Personal innovativeness / consumer innovativeness
Cluster 2 – Consumer innovativeness / cross-cultural differences in consumer innovativeness
Cluster 3 – Organisational innovativeness and performance
Cluster 4 – Organisational innovativeness, market orientation, entrepreneurial orientation and customer orientation
Cluster 5 – Conceptualising innovation orientation
Cluster 6 – Organisational innovativeness, team innovativeness, growth and profitability
Cluster 7 – Product innovativeness/technological innovativeness
Cluster 8 – Product development and innovativeness

Source: VOSviewer based on Scopus database
A close look at Table 5 makes it clear that innovativeness is a behavioural tendency towards innovation that produces capabilities upon which long-term success is contingent (Siguaw et al., 2006). While some scholars use perceptual measures such as radicalness and relative advantage (e.g. Ayuso, Rodríguez, García-Castro & Ariño, 2011), others use operational measures – for instance, “number of innovations adapted” (e.g. Homburg, Hoyer & Fassnacht, 2002; Manu, 1992); personality variables such as general attitude towards change, the ability to deal with uncertainty and taking risks (e.g. Hult et al., 2004; Hurley & Hult, 1998); and actual behaviours in terms of implementation of innovation (e.g. Dobni, 2008; Zhou, Gao, Yang & Zhou, 2005). While behaviour communication (e.g. Chittoor et al., 2015) is also used as a measurement, another set of researchers conceptualise innovation orientation with innovation counts and related derivations. For instance, Homburg et al. (2002) delineate innovation orientation as a function of the number of innovations a company offers, the number of customers these innovations are offered to, and the strength of the innovation. Manu and Sriram (1996) use a combination of new product introduction, R&D expenditures and order of market entry to measure the concept.

However, there is no consensus on the dimensionality of the innovation orientation concept. According to Hurt, Joseph and Cook (1977) and Witteeman (1976), innovativeness is a unidimensional construct, whereas Wang and Ahmed (2004) argues that such unidimensional constructs do not essentially capture the different aspects of the domain of innovativeness. This disagreement may have resulted from innovativeness being a multidimensional construct (Nystrom, Ramamurthy & Wilson, 2002).
Table 5: Conceptualisation of Innovativeness / Innovation Orientation

<table>
<thead>
<tr>
<th>Author</th>
<th>Constructs</th>
</tr>
</thead>
<tbody>
<tr>
<td>Engelen, Kube, Schmidt and Flatten (2014)</td>
<td>Based on Siguaw et al. (2006), learning philosophy, strategic direction and cross-functional acclimatisation</td>
</tr>
<tr>
<td>Talke, Salomo and Kock (2011)</td>
<td>The approach of innovation orientation from a strategic perspective based on proactive market orientation and proactive technology orientation</td>
</tr>
<tr>
<td>Dobni (2010)</td>
<td>Intention, infrastructure, influence and implementation</td>
</tr>
<tr>
<td>Cheung et al. (2010)</td>
<td>Acceptance of new ideas, encouragement of new ideas and allocation of resources to implement new ideas</td>
</tr>
<tr>
<td>Chen and Huang (2009)</td>
<td>Opening towards innovation and capacity to innovate</td>
</tr>
<tr>
<td>Zhou (2009)</td>
<td>Investing in innovation, innovation promotion, encouraging innovative thinking</td>
</tr>
<tr>
<td>Bouncken and Koch (2007)</td>
<td>Company’s inclination towards encouraging individual and organisational creativity, continuous search of new product concepts, product improvement and continuous development, improvement of creativity by developing internal incubators of ideas, rapid deployment and cross-functional innovation, horizontal and vertical participation of all employees in the development of new ideas</td>
</tr>
<tr>
<td>Siguaw et al. (2006)</td>
<td>Learning philosophy, strategic direction and cross-functional acclimatisation</td>
</tr>
<tr>
<td>Berthonet et al. (2002)</td>
<td>Isolation, track, training and interaction</td>
</tr>
<tr>
<td>Manu (1992)</td>
<td>Order market entry, new products and R&amp;D expenses</td>
</tr>
</tbody>
</table>

Source: Researcher

According to Hurley and Hult (1998), beliefs of people about innovation in an organisation affect the innovation culture that the firm is expected to build. Yet, innovation research has largely ignored this aspect. Innovation is the desired outcome of innovativeness, yet it does not define the orientation taken by an organisation towards innovation. Innovation counts–based conceptualisations do not capture the process-based capacity of innovation orientation which drives the firm strategy, learning and functional interaction towards the goal of innovation (Siguaw et al., 2006). Further, innovativeness of a product or adopted product does not measure organisational innovation orientation (Garcia & Calantone, 2002).
Subsequent researchers in the area have attempted to remedy some of these deficiencies by adding specifics of organisational behaviour in such areas as production, marketing and asset management. Related to this issue is the operationalisation of innovation orientation. Previous research on the subject has used single variable constructs based on such factors as timing of market entry (Ansoff & Stewart, 1967), R&D expenditures (Freeman, 1979) and rate of change of products and markets (Miles, Snow, Meyer & Coleman, 1978). Each of these studies contributes to an understanding of the importance of a particular dimension of innovativeness, but there appears to be not as much consideration of how these different dimensions link together.

Therefore, an enterprise view of innovation is essential to be incorporated in innovation research (Moorman & Slotegraaf, 1999). It is an intentional and calculated plan or strategic intent (Worren, Moore & Cardona, 2002) that provides direction toward an organisation-wide commitment to more and faster innovations. Innovativeness will likely improve the long-term performance of firms indirectly through innovation, market and employee advantages, and operational efficiency. Researchers also found that innovativeness contributes to the adoption of innovations (Agarwal & Prasad, 1998; Yi, Fiedler, & Park, 2006) and organisational performance (Calantone et al., 2003; Hult et al., 2004). In defining the innovativeness concept, this thesis follows the process view of innovativeness instead of the product view.

The product view holds the notion that performance gains of innovativeness are the results of specific product introductions in the market (Geroski, Machin & Van Reenen, 1993). Yet, following the process view of innovativeness this thesis maintains that performance gains of innovativeness stem from the specific competitive abilities that go beyond introducing new products. These abilities lie in the cultural traits of innovative firms but are lacking in non-innovative firms (Tellis, Prabhu & Chandy, 2009). As argued by Hurley and Hult (1998),
innovativeness culture refers to the openness to new ideas embedded in the organisational culture, representing the ability to continuously engage in new product introduction. Therefore, as emphasised by Siguaw et al. (2006), this is a holistic perspective on innovation, with the capacity to distinguish between the innovation–orientation system and its potential organisational competencies and subsequent outcomes such as innovation and firm performance. By contrast, output-based innovativeness captures a specific innovation activity of a given point of time. Yet, such temporary activities cannot protect the firm from competitive challenges in the long run (Hurley & Hult, 1998). Therefore, based on Hult et al. (2004), Siguaw et al. (2006) and Lumpkin and Dess (1996), innovativeness is defined as “the openness of organisational culture towards innovative ideas in pursuing the social mission of the social enterprise”. This offers a broader, formalised conceptualisation of innovativeness and a starting point for researchers seeking to understand the more sweeping effects of the organisation, as a whole, on innovation (Choi & Choi, 2014).

Extant literature on firm innovativeness is fragmented, as research on this topic has proceeded in several disciplines in parallel (Rubera & Kirca, 2012). A significant amount of firm-level innovativeness has focused on its effect on firm performance (Rauch, Wiklund, Lumpkin & Frese, 2009). More recent work on this line has considered analysing the determinants of innovativeness (Kyrgidou & Spyropoulou, 2013). These works include themes such as effect of leadership (Dunne et al., 2016); effects of environmental turbulence (Alexiev, Volberda & Van den Bosch, 2016; Tsai & Yang, 2014) and market heterogeneity (Alexiev et al., 2016); effects of social capital dimensions through knowledge acquisition (Parra-Requena et al., 2015); and effect of the firm’s position in the network (Casanueva, Castro & Galán, 2013).
Despite the influential and enduring theoretical insights generated by these scholarly works, the question remains as to the mechanism of how innovativeness emerges and pervades the organisational setting. While the research on innovative behaviours of organisations remains inconclusive and inconsistent (Cho & Pucik, 2005), there is also a limited understanding of the innovation process and the innovativeness of social enterprises compared to other organisational forms (Doherty et al., 2014, p. 423). Therefore, it is important to understand not simply what is necessary to foster innovativeness but also the mechanism of how it develops within the complex social enterprise setting. This study focuses on extending this line of work by conceptually relating OSC into innovativeness of social enterprises followed by an empirical test of proposed explanatory mechanisms.

2.6 KNOWLEDGE CREATION CONCEPT AND EXTANT RESEARCH

The knowledge creation theory of Nonaka (1994) builds on the assumption that knowledge is created thorough the conversion between tacit and explicit knowledge resulted from four modes of knowledge creation in an organisation. These four phases (Von Krogh, Nonaka & Rechsteiner, 2012) or four modes (Nonaka, 1994) of knowledge creation are socialisation – sharing and conversion of tacit knowledge through the shared experiences of individuals; externalisation – articulation of tacit into explicit knowledge; combination – combining different strands of explicit knowledge to create more complex or systematic sets of knowledge; and internalisation – embodying explicit into tacit knowledge (Nonaka et al., 2000). Therefore, organisational knowledge creation is the process of making available and amplifying knowledge created by individuals, as well as crystallising and connecting it with an organisation’s knowledge system (Nonaka et al., 2000). When these two main arguments are connected, it can be seen that generally there are two major processes involved in knowledge creation: knowledge exchange and knowledge combination. Also, these two processes are two
unique constructs of the knowledge creation process (Shu et al., 2012). Knowledge creation is one of the most relevant outputs of knowledge transfer activities and refers to new knowledge in terms of new products, processes, skills or capabilities resulting from the combination of existing knowledge.

According to Nahapiet and Ghoshal (1998), knowledge exchange is a prerequisite for knowledge combination. A requisite for the creation of collective knowledge is the exchange of information among individuals and groups within the organisation, and fostering a rich flow of knowledge exchange within the organisation can be an important source of competitive advantage (Cabrera & Cabrera, 2002). Knowledge exchange is also defined as the process through which a piece of knowledge is acquired in one situation and applied to another (Alegre & Chiva, 2013). Therefore, it is clear that knowledge is generated through social interactions (Cohen & Levinthal, 1990; Kogut & Zander, 1992) and resource integration (Collinson, 2000). Knowledge exchange has been conceptualised with different constructs such as knowledge acquisition and integration (Grant, 1996); initiation, implementation, ramp-up and integration (Szulanski, 1996); knowledge acquisition and exploitation (Yli-Renko et al., 2001); knowledge search (Hansen et al., 2005); and mobilisation (search), assimilation and utilisation of knowledge resources (Maurer et al., 2011a).

Knowledge sharing differs from knowledge transfer and knowledge exchange. Knowledge transfer involves both the sharing of knowledge by the knowledge source and the acquisition and application of knowledge by the recipient. “Knowledge transfer” typically has been used to describe the movement of knowledge between different units, divisions or organisations, rather than individuals (e.g. Szulanski, Cappetta & Jensen, 2004). Although “knowledge exchange” has been used interchangeably with “knowledge sharing” (e.g. Cabrera, Collins & Salgado, 2006), knowledge exchange includes both knowledge sharing and knowledge seeking.
Organisational Social Capital and Social Innovativeness

(Wang & Noe, 2010). Knowledge sharing processes can be conceived as the processes through which employees mutually exchange knowledge and jointly create new knowledge (Van den Hooff & de Leeuw van Weenen, 2004). While knowledge creation and knowledge sharing typically imply an intra-firm focus, knowledge acquisition refers to knowledge that is available outside the firm. Thus knowledge creation is the key knowledge process impacting innovation. However, building on Nonaka (1994), Nahapiet and Ghoshal (1998) and Shu et al. (2012), it can be seen that interactions among organisational members facilitate exchange of information, personal experiences and perceptions and knowledge. With a higher frequency of knowledge exchange will be the possibility of knowledge availability from different sources to combine (Shu et al., 2012). This gathered knowledge will either be connected with previously unconnected knowledge or recombine the existing knowledge differently (Nahapiet & Ghoshal, 1998). Therefore, knowledge exchange positively relates to knowledge combination (Shu et al., 2012).

Extant literature emphasises that firms must seek new knowledge to combine with existing knowledge to develop opportunities that enhance the competitive advantage of a firm (Drucker, 1995). Knowledge combinability refers to the routines and processes used to combine knowledge situated in knowledge structures (Kogut & Zander, 1992). The influences on knowledge combinability are important because they affect how firms can sort through and select the most feasible opportunities to exploit (Ardichvili, Cardozo & Ray, 2003). Trust has also been linked with the implementation of intranet-based knowledge management activities, individual knowledge sharing, and firms’ capability of knowledge exchange and combination (Chiu, Hsu & Wang, 2006; Collins & Smith, 2006).

In the very initial stages of knowledge management as a discipline, scholarly work focused on technological aspects related to knowledge management (Bell DeTienne, Dyer, Hoopes &
Harris, 2004). Recent work focuses on people management and human-related drivers to knowledge management and knowledge management effectiveness. In the recent work of knowledge acquisition, it has been widely accepted that external knowledge acquisition has a direct impact on organisational innovativeness (Powell, Koput & Smith-Doerr, 1996) yet, if managers want to sustain the innovativeness in their companies, they need to take care not only of knowledge acquisition but of knowledge creation as well (Andreeva & Kianto, 2011). Hence, although a knowledge creation–driven organisational culture would be a necessary premise in order to create an innovative, flexible, effective and efficient organisation (Lettieri et al., 2004), there is a paucity of studies examining the organisational mechanism of deploying knowledge strategically into the innovation process (Koch, 2011).

2.7 OPPORTUNITY-MOTIVATION-ABILITY

Opportunity-motivation-ability explain whether an environmental inducement presents opportunities to knowledge exchange; the opportunities are realistically shared among organisational members; and the successful opportunity exploitation achieves organisational goals (McMullen & Shepherd, 2006). Opportunity-motivation-ability can act as a tool providing insight into how corporate resources may best be used at targeted elements in the corporate entrepreneurship process as opposed to being completely generalised over a broad range of antecedents (Turner & Pennington, 2015).

2.7.1 Opportunities to Knowledge Exchange

Opportunities include the context through which knowledge creation behaviours are encouraged (Turner & Pennington, 2015). Accessibility to the objectified and collective forms of social knowledge generated from organisational relationships will provide members with the opportunity to learn from others (Argote & Ingram, 2000). Proximity provides people with
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the opportunity to learn from others and make efficient the knowledge search (Borgatti & Cross, 2003). The transfer of routines, tools and technology across units within organisations allows members of a recipient unit to benefit from knowledge acquired from a previous unit (Winter & Szulanski, 2001). Personal movements and informal connections allow members to share the knowledge accumulated by close internal/external associates (Hansen et al., 2005; Reagans & McEvily, 2003; Song, Almeida & Wu, 2003; Uzzi & Lancaster, 2003).

2.7.2 Motivations to Knowledge Exchange

Motivation to knowledge exchange is defined as an individual or unit’s willingness to act (Rothschild, 1999; Siemsen et al., 2008). Members of a unit are unlikely to transfer knowledge among members if they are not rewarded for utilising internal knowledge (Menon & Pfeffer, 2003). Social rewards can be just as important as monetary rewards. Strong ties promote the transfer of tacit knowledge (Uzzi & Lancaster, 2003) as they are more likely to be governed by the norms of reciprocity. The cooperative norms associated with social cohesion also facilitate knowledge transfer (Reagans & McEvily, 2003). Concerns about damages to reputation by not being cooperative with others will also motivate members to engage in active knowledge sharing.

2.7.3 Ability to Exchange and Combine Knowledge

Ability to knowledge exchange is defined as the talent, skill or proficiency in a particular area related to the action (Rothschild, 1999; Siemsen et al., 2008). Ability concerns itself with whether an opportunity could feasibly be shared or coordinated throughout the organisational network (McMullen & Shepherd, 2006). Even if all the previous conditions exist, the capability to combine information is a must. Training can improve combination capability (Nadler et al. 2003). The similarity between tasks (Darr & Kurtzberg, 2000) and experience
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makes that transfer easier. Members can understand knowledge matching with previous experience because their new learning is absorbed by current knowledge (Cohen & Levinthal, 1990).

Given the importance of this, the extant literature recognises the three factors described above as opportunity-motivation-ability (Adler & Kwon, 2002), corporate entrepreneurship facilitators (Turner & Pennington, 2015) and behavioural changing factors – or MOA factors in operations management literature (Siemsen et al., 2008). This framework is a robust outline for identifying the essential relationships needed to manage the knowledge creation process leading to innovation (Turner & Pennington, 2015). This framework has been theoretically developed and applied in various contexts given its robust capacity to offer insights into knowledge creation and performance enhancements (Blumberg & Pringle, 1982). However, existing accounts of the social capital and innovation relationship have not empirically examined the mechanism formed by opportunity-motivation-ability coupled with knowledge creation on the relationship between OSC and social innovativeness. Inclusion of these three factors adds more essential functionality, which was largely omitted in modelling the said relationship by the extant literature, to explain the process behind social capital execution for innovation development.

2.8 SUMMARY

This chapter critically reviewed the extant literature on OSC, innovativeness, knowledge creation and opportunity-motivation-ability. The concept of innovativeness has been investigated with narrow reductionist conceptualisations. Further, a knowledge creation–driven organisational culture is a source of innovativeness, yet there is a paucity of studies investigating the organisational mechanism of deploying knowledge strategically into the
innovation process. Knowledge is often generated through social interactions and resource integration. OSC facilitates knowledge creation by providing access to relevant knowledge, and a common interest with mutual trust and appreciation of the value of others’ knowledge. The next chapter focuses on clarifying the link between social innovation, social entrepreneurship and social enterprise mainly and providing an overview of social enterprise characteristics and extant research.
CHAPTER 3: SOCIAL INNOVATION, SOCIAL ENTREPRENEURSHIP AND SOCIAL ENTERPRISE CONCEPTS AND RESEARCH

3.1 OBJECTIVE

This thesis focuses on the relationship between OSC and social innovativeness in an organisational perspective located in a social enterprise study context. The concepts of social entrepreneurship, social innovation and social enterprise often conflate with each other in the literature. However, they are essentially linked but distinctive concepts. Social entrepreneurship and social enterprise concepts are related and included in social innovation, which broadly covers multiple disciplines. The previous chapter focused on identifying the theoretical perspectives underpinning the thesis and explaining their relevance.

The purpose of this chapter is to clarify the concepts of social innovation, social entrepreneurship and social enterprise. It also uncovers these conceptual distinctions and their interrelationships. Therefore, firstly, this chapter clarifies social innovation and social innovativeness. Secondly, it explains social entrepreneurship and its relationship to social innovation and social innovativeness. Finally, given the significance of the context of this thesis, the social enterprise concept and research are discussed in detail under the sub-headings: (1) features of social enterprises; and (2) Australian social enterprise sector and research.

3.2 SOCIAL INNOVATION

Social innovation is embraced as a mechanism that responds to big social challenges like income inequality, unemployment, climate change and gender inequality. Though definitional ambiguity is obvious, the extant literature uses several reflective dimensions to define social innovation, such as new solutions (Caulier-Grice, Davies, Patrick & Norman, 2012), primarily...
aimed at solving social problems (Sinclair & Baglioni, 2014) and which is “developed and diffused through organisations whose primary purposes are social” (Mulgan et al., 2007, p. 9).

Social innovation has over the past decade received substantial attention from academics, policy makers, business, non-profit organisations and philanthropic foundations. This response has triggered the introduction of many programs targeted at learning good practices of social innovation and a mix of infrastructure needed to develop these initiatives.

The systematic literature review uncovered nearly 40 definitions that predominantly confirm the application of social innovation in multiple subject areas such as creativity research (Mumford, 2002), urban studies (Moulaert et al., 2013), entrepreneurship (Nicholls & Murdock, 2011; Swedberg, 2009a), welfare economics (Pol & Ville, 2009), social policy and similar public sector approaches (Borzaga & Bodini, 2014; Neumeier, 2012a), sociology (Zapf, 1991) and sustainable development (Baker & Mehmood, 2015). The multidisciplinary nature of social innovation is illustrated in an author citation network (Figure 8).

The social entrepreneurship literature (Figure 8, Cluster 1) identifies social innovation as a central element (Defourny & Nyssens, 2010) and as an intersecting field of social entrepreneurship, championed by social entrepreneurs (Dacin, Dacin & Tracey, 2011). Social entrepreneurship is an entrepreneurial process of combining resources (Mair & Marti, 2006) and social mission with resourcefulness in traditional entrepreneurship (Seelos & Mair, 2005) to exploit opportunities (Mair & Marti, 2006). In an alternative explanation, Leadbeater (1997) views social entrepreneurship as an entrepreneurial behaviour using profits generated by market activities for the betterment of a specific disadvantaged group. Attempting to map the microstructures of institutional legitimation in social entrepreneurship following Harvard Business School’s social innovation model, Nicholls (2010b) views social entrepreneurship as a process of change in the delivery of public goods and social/environmental services.
Figure 8: Author Co-citation Network – Social Innovation

Key:
Cluster 1 – main emphasis is on social entrepreneurship and social innovation
Cluster 2 – emphasis is on practice of social innovation
Cluster 3 – emphasis is on ecological resilience and social innovation
Cluster 4 – emphasis is on grassroots innovation and transition, and social innovation
Cluster 5 – a mix of philosophy, social policy, networks and innovation
Cluster 6 – emphasis is on territorial development and social innovation

Source: VOSviewer output
In a policy perspective, Leadbeater (1997) suggests that social innovation will be the effective response to social problems when the welfare state has failed to address those social challenges. Leadbeater (1997) further states that the economic matters behind the reduction of welfare measures attempting to cut the cost of social welfare attract the significance of social innovation. Hence, Leadbeater (1997) strongly believes that social innovation is the cure for these social ills and can improve the quality of social welfare, hence reducing the cost of social welfare. Clarifying the centrality of social innovation in social entrepreneurship, Zahra, Gedajlovic, Neubaum and Shulman (2009, p. 519) assert that “[s]ocial innovation is the core of social entrepreneurship”, a statement which is supported by a number of other scholars (Dawson & Daniel, 2010; Perrini, Vurro & Costanzo, 2010; Phillips et al., 2015).

The urban governance focus (Cluster 6) recognises social innovation as an alternative approach to urban development through innovative relations in community governance, which in turn emphasises human needs for satisfaction or empowerment (Moulaert, 2000).

Framing social innovation in a community and regional development perspective, Moulaert and Nussbaumer (2005) define it as innovation in social relations that include professional, labour, market and governance relationships. Building on Moulaert and Nussbaumer (2005), Gerometta et al. (2005) define social innovation with three main dimensions: content dimension (satisfaction of human needs), process dimension (changes in governance relations) and empowerment dimension (increasing the socio-political capability and access to resources) (Figure 9). Social innovation is differently interpreted by Nicholls, Simon and Gabriel (2015, p. 4) as the three levels of social innovation; incremental – which addresses identified market failures effectively with products; institutional– reconfiguring existing market structures and patterns; and the disruptive level – changing cognitive frames of reference to change social systems and structures through politics.
Studies addressing creativity hold the view that social innovation generates and implements notions about how people should organise interpersonal activities or social interactions to meet one or more common goals (Mumford, 2002). These goals may involve novel types of social institutions, new governance, new processes and procedures for collaborative work or new social practices. He further states that social innovation is a relatively rare event and requires unique skills and expertise in solution implementation. Presenting a multi-level perspective on transition management, Geels and Schot (2007) identify three levels of transitions – niche innovations, socio-technical regimes and socio-technical landscapes – and these are similar to the social innovation levels identified by urban governance literature. Transitions are processes of structural change in societal systems and transition management is a governance approach aimed at sustainable development (Loorbach, 2010).

Another popular perspective is the welfare economics view of social innovation put forward by Pol and Ville (2009), a view of social innovation that enhances the “macro-quality of life
or extends life expectancy” (Pol & Ville, 2009, p. 884). This macro-quality of life means the availability of options for a group of people to select. Hence, it is apparent that this definition also frames the discussion on the empowerment dimension / third level of social innovation noted previously with an economic ideology.

Considering the above discussion, it can be seen that some scholars define social innovation as a process (e.g. Dawson & Daniel, 2010; Gerometta et al., 2005; Hochgerner, 2012; Howaldt & Schwarz, 2011; Munshi, 2010; Pol & Ville, 2009; Westley & Antadze, 2010; Young, 2011) while for others, social innovation is an outcome (e.g. Grimm et al., 2013; Haugh & Kitson, 2007; Martinelli, 2012; Moulaert et al., 2005; Mulgan et al., 2007; Neumeier, 2012a; Nicholls & Murdock, 2011; Phills et al., 2008b; Swedberg, 2009b; Zapf, 1991). The social relations oriented emphasis of the urban studies knowledge group reflects on a more process oriented social innovation focus whereas the social entrepreneurship and social enterprise research emphasis is about outcome-based social innovations confined to business applications. Social innovation is anticipated as a cross-sector collaboration of information and resource sharing which aims at enhancing the capacity of society to solve social issues and generate significant change (Adams & Hess, 2010).

Therefore, social innovation is likely to include new forms of civic involvement, participation and democratisation contributing to an empowerment of disadvantaged groups or improving the quality of life in a region (Neumeier, 2012b). The highly cited author in Cluster 2 is Mulgan. The definition of social innovation in Mulgan’s seminal work is adopted in this thesis as a clear distinction of social innovation in relation to social enterprise, and is vital in this investigation. This definition distinguishes the social innovation recognised in the social enterprise context from the corporate social innovation that has emerged in private organisations, which represents the second research stream of organisational level social innovation. This stream is
based on the argument that community needs can be taken as opportunities to develop business ideas and to solve long-standing business problems (Kanter, 1999). Yet, the social enterprises research stream is based on organisations primarily inclined towards provisioning of public goods. Moreover, Cluster 2 mainly possesses a general practice oriented interpretation of social innovation whereas other clusters are based on a specific disciplinary area such as ecological resilience, urban studies and transition management. Thus, avoiding subject specific definitions on social innovation, this general practice oriented definition is adapted in this thesis. Hence, social innovation is defined as:

innovative activities and services that are motivated by the goal of meeting a social need and that are predominantly developed and diffused through organisations whose primary purposes are social. (Mulgan et al., 2007)

### 3.3 SOCIAL ENTREPRENEURSHIP

Social entrepreneurship is defined in numerous ways. “Social entrepreneurship combines the passion of a social mission with an image of business-like discipline, innovation and determination […]” (Dees, 1998b, p. 1). Social entrepreneurship is a dynamic process of aiming at creating new social value in the market and community at large by an individual or a team striving to exploit [social innovation] with an entrepreneurial mind-set and a strong desire for achievement (Perrini et al., 2010). For Bacq and Janssen (2011b), social entrepreneurship is a process of pursuing opportunities through entrepreneurial activities which does not necessarily involve the creation of a new venture.

Although this concept continues to attract academic attention, a considerable level of variation in the conceptualisation continues. Reflecting United States (US) scholarship, Germak and Robinson (2014) state that social entrepreneurship is a highly popular practice of applying business solutions to social challenges. In contrast, Santos (2012) states that social
entrepreneurship is the development of appropriate, effective and long-lasting institutional solutions rather than market mechanisms and securing subsidies from governments. There is little consensus on what is included in social entrepreneurship (Choi & Majumdar, 2013), giving rise to a loose (Lyon & Fernandez, 2012a) and theoretically not well-bounded concept (Petrella & Richez-Batelli, 2014).

This study found 40 social entrepreneurship definitions, which may be categorised into three main areas. The first emphasises an involvement of business activities and skills in social entrepreneurship. The second stresses entrepreneurial approaches whereas the third area adopts an institutional emphasis. These three definitional areas are elaborated upon below.

a) Definitions with a business emphasis identify social entrepreneurship as


b) Definitions with an entrepreneurial emphasis consider social entrepreneurship as

i) an entrepreneurial approach addressing social issues (Bacq & Janssen, 2011b; Cunha, Benneworth & Oliveira, 2015; Martin & Osberg, 2007; Newth & Woods, 2014; Yunus, 2008) via resource allocation (Mair & Marti, 2004; Nicholls, 2010a; Swedberg, 2009a) with an earned income (Hibbert, Hogg & Quinn, 2005; Leadbeater, 1997; Tracey & Jarvis, 2007) while exploiting social innovation (Perrini et al., 2010; Schmitz & Scheuerle, 2012)

ii) enhancing social wealth via venture creation (Zahra et al., 2009) to achieve social change (Seelos & Mair, 2005; Tapsell & Woods, 2008) or social transformation (Alvord et al., 2004; Roberts & Woods, 2005) or social value creation (Austin,
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c) Definitions with an institutional emphasis consider social entrepreneurship as an institutional arrangement for addressing social issues (Bornstein, 2004; Cho, 2006; Nicholls, 2006; Santos, 2012; Waddock & Post, 1991).

Overall, there is a clear consensus among scholars that social entrepreneurship is driven by a mission to address social issues. Some scholars define social entrepreneurship as a process, while others identify it as an outcome of venture creation. In many cases, these themes do not vary but use different words to explain the same phenomenon. However, Kerlin (2006) notes that differences in social entrepreneurship result from contrasting forces shaping and reinforcing the social entrepreneurship concept in various regions – an aspect commonly referred to as the North Atlantic divide. In contrast, Bacq and Janssen (2011b) maintain that there is an absence of an explicit transatlantic divide and consider that different conceptions coexist even within the US.

3.4 LINK BETWEEN SOCIAL INNOVATION, SOCIAL ENTREPRENEURSHIP AND SOCIAL ENTERPRISE

Zahra et al. (2009, p. 519) assert that “[s]ocial innovation is the core of social entrepreneurship”, a statement which is supported by a number of other scholars (Dawson & Daniel, 2010; Perrini et al., 2010; Phillips et al., 2015; Phillips, Deiglmeier & Miller, 2008a; Shaw & de Bruin, 2013). Additionally, the Schwab Foundation (located in Switzerland) and the Skoll Foundation (based in the US), both consider that social innovation is central to social entrepreneurship. The motivation for social entrepreneurship and social innovation to create social value stems from a need to address pressing social issues. Although there is a clear
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overlap (Bornstein, 2004), different emphases are evident in these two concepts. Therefore, social innovation is assumed to be a pursuit of a social goal in a collective manner and a dynamic interplay by actors with an intention to create significant change in systems or institutions rather than simply providing socially beneficial services.

Although scholars try to conflate social innovation with social entrepreneurship, and at times with social enterprise, Phills et al. (2008a) assert that social innovation is the most appropriate construct for understanding and producing long-lasting social change. As a field of study, social entrepreneurship examines organising processes and social entrepreneurs as the people who start social ventures (Cunha et al., 2015; Phills et al., 2008a) whereas social enterprise focuses on the operational and organisational aspects of the site of this process (Phills et al., 2008a). None of these social entrepreneurship aspects explain the mechanism of social change. Social innovation is the construct that examines or explains the system changing mechanisms of social change (Cunha et al., 2015; Phills et al., 2008a; Schoning, 2013). The link between social entrepreneurship and social innovation is reflected in the definition provided by Schmitz and Scheuerle (2012), where social entrepreneurship is perceived as the establishment of initiatives to implement social innovation. Confirming this analysis, Sharra and Nyssens (2010) state that social innovation may be included in social enterprise, but is not equivalent to it, and therefore, the notion of social enterprise is not necessarily linked to social innovation (Dees & Anderson, 2006). Providing a different view, Mulgan, Tucker, Ali and Sanders (2006) asserts that social innovation certainly emerges through social enterprises and social entrepreneurship, but it may also occur in many other contexts. This implies that social innovation is a broader concept than that of social entrepreneurship and social enterprise. Therefore, both the concepts of social entrepreneurship and social enterprise are embedded in social innovation which operates at the inter-organisational and system level (Brackertz, 2011). Bringing a critical point to the discussion, Mulgan et al. (2006) state that although social entrepreneurship often involves
innovations, a very limited number of implementable new models are being developed by social entrepreneurs and this process often involves governments and larger businesses.

3.5 SOCIAL ENTERPRISE

Social enterprise is a business with a dual mission of achieving both financial sustainability and social purpose (Doherty et al., 2014). A social enterprise engages in economic and trading activities to fulfil the mission (Lorenz & Kay, 2010), and often relies on volunteers to serve key functions (Austin et al., 2006). A social enterprise’s surplus revenue is reinvested into the enterprise for the social purposes (Dees, 1998a; Lorenz & Kay, 2010) while operating in all parts of the economy with a social value and wealth creation view (Chell, 2007). Social enterprises are a form of firms driven by social aims and operating in markets (Kerlin, 2006). For Peredo and McLean (2006), social enterprise is an earned income strategy–based activity of non-profit organisations. With a broader scope, Defourny (2001) defines social enterprises as novel types of entities with a process and enterprise spirit aiming at refashioning older experiences and representing a sub-division of the third sector¹.

As discussed in Chapter 1, the social enterprise phenomenon has attracted significant attention from researchers, practitioners and policy makers (Doherty et al., 2014). This is due to several reasons, such as changes in philanthropic giving (Dees, 1998b); public service delivery models creating new market opportunities (Chell, 2007); interest in alternative economic systems diverting resources to new forms of businesses; and responses from policy makers and practitioners to rising inequalities and deficiencies in economic justice (Dees & Anderson, 2006).
3.5.1 Key Characteristics of Social Enterprises

Social Enterprise Mission

One of the distinguishing features of social enterprises is that they are social mission or social purpose driven. There are multiple purposes of social enterprises: social and labour integration; providing support services to marginalised groups; increasing human or social capital within communities; and provision of goods, services and advocacy (Burcea, 2014). The assets and wealth of these entities are used to create community benefits and this mission is facilitated by trading in a marketplace at least partially (Thompson & Doherty, 2006). As a result, social enterprises tend to reflect on a dual mission (Doherty et al., 2014) that often leads to integral paradoxical tensions (Teasdale, 2012), which in turn shapes the opportunity recognition and exploitation processes (Doherty et al., 2014) of the social enterprises, thus making them unique. Based on Alter (2007), this duality is graphically exhibited in Figure 10.

Figure 10: Social Enterprise Typology

<table>
<thead>
<tr>
<th>Traditional non-profit</th>
<th>Non-profit with income-generating activities</th>
<th>Social enterprise</th>
<th>Socially responsible businesses</th>
<th>Corporation practicing social responsibility</th>
<th>Traditional for-profit</th>
</tr>
</thead>
<tbody>
<tr>
<td>Mission motive</td>
<td>Profit-making motive</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Stakeholder accountability</td>
<td>Shareholder accountability</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Income reinvested in social programs or operational costs</td>
<td>Profit redistributed to shareholders</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Based on Alter (2007)

According to Figure 10, adding to the complexity, there are multiple hybrid-type social mission–driven profit and non-profit businesses. Hence, social enterprises become the only form of organisations that maximise the value creation objective which satisfies value capture (Agafonow, 2014).
Types, Legal Structure and Governance of Social Enterprises

The multiple interpretations of social enterprises imply that it is a “contested concept whose meaning is politically, culturally, historically and geographically variable” (Teasdale et al., 2013). According to Kerlin (2006, p. 248), in the US “social enterprise is understood to include those organisations that fall along a continuum from profit-oriented businesses engaged in socially beneficial activities (corporate philanthropies or corporate social responsibility) to dual-purpose businesses that mediate profit goals with social objectives (hybrids) to non-profit organisations engaged in mission-supporting commercial activity (social purpose organisations)”. The EMES research network of Europe is one of the main school of thoughts in social enterprise research and defined the ideal type of social enterprise with the following main features: a continuous activity producing goods and/or selling services; a high degree of autonomy; a significant level of economic risk; a minimum amount of paid work; an explicit aim to benefit the community; an initiative launched by a group of citizens; a decision-making power not based on capital ownership; a participatory nature, which involves the persons affected by the activity; and limited profit distribution (Defourny, 2001, pp. 16-18). In the meantime, one of the highly established social enterprise sectors is in the UK, operating in the “social economy”, whereas in US non-profit social enterprises operate in the market economy (Kerlin, 2006). The UK Department of Trade and Industry defines social enterprises as “businesses with primarily social objectives whose surpluses are principally reinvested for that purpose in the business or the community, rather than being driven by the need to maximize profits for shareholders and owners” (DTI, 2002). Social Enterprise UK (2012) mentions that “[s]ocial enterprises should: [h]ave a clear social and/or environmental mission set out in their governing documents, [g]enerate the majority of their income through trade, [r]einvest the majority of their profits, [b]e autonomous of state, [b]e majority controlled in the interests of the social mission, and [b]e accountable and transparent”.

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Although not legally defined in many countries, social enterprise expression is highlighted at national levels with different terms such as “social economic enterprises” in Austria, “socially-aimed enterprises” in Belgium, “cooperatives with social aims” in Spain, and “social co-operatives” in Italy and Portugal (Borzaga & Defourny, 2003). Work integrated social enterprises (WISE) are a specific form of social enterprise in the UK, are driven with the core purpose of workforce development and/or job creation for disadvantaged populations (Spear and Bidet, 2005). They may also combine a mission to address social exclusion (Teasdale, 2010, 2012) by providing a product or service needed by society (Ferguson, 2012). These are a main example of a hybrid organisational form (Pache & Santos, 2013b) bridging institutional fields by spanning the boundaries of the private, public and non-profit sectors (Tracey et al. 2011) and facing conflicting institutional logics (Pache & Santos, 2013b). There are national differences in incorporating and legal structures of social enterprises, depending on socio-political and economic grounds specific to countries and regions in the world. In France and Belgium, social enterprises are set up mainly as associations. They are similar to a quasi-enterprise and allowed at least to produce and sell goods and services on the market as a means of achieving their social goal (Borzaga & Defourny, 2003).

In relation to the governance aspect of social enterprises, Thompson and Doherty (2006) identify three main characteristics: profits and surpluses are not distributed to shareholders; “members” or employees have some role in decision-making and/or governance; and the enterprise is seen as accountable to both its members and a wider community. There is either a double- or triple-bottom line.

Regarding the Asian literature on social enterprises, uniqueness can be seen. This context recognises social enterprises as entities involved in “the development of a business or livelihood which enhance the lives of those involved” (Bradley, Chakravarti & Rowan, 2013,
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p. 88). These social enterprises / commercial companies have a strong commitment to help the poor (Sodhi & Tang, 2011). Following Defourny (2001), Peredo and McLean (2006), and Kerlin (2006), this literature tends to frame social enterprises as an entrepreneurial market approach (e.g. Mackintosh, Chaudhuri & Mujinja, 2011). Especially, based on Social enterprise London definition, Heeks and Arun (2010) identify “Kudumbashree”\(^2\) initiative as a social enterprise with three key characteristics: orientation towards enterprising; pursuing both social and business aims (e.g. encouraging savings, alleviating poverty and addressing female unemployment); and socially cooperatively owned by women from poor communities (SEL, 2001). Asian literature recognises the hybridity of social enterprises and acknowledges that semi-commercial operations offer sustainability by developing viable supply chains and customer responsive business models rather than centralised distribution mechanisms and ongoing funding support (e.g. Shrimali, Slaski, Thurber & Zerriffi, 2011). The tendency of Asian literature to frame social enterprises as organisations with both business and social missions is clearly visible in their research strategy. For instance, Goyal, Sergi and Kapoor (2014, pp. 30-31) defined the social enterprise sample based on three attributes: setup as a private limited company in India; targeting the needs of Bottom of the Pyramid (BOP)\(^3\) segment and pursuing a social mission. Additionally, studying about solar products for poor communities as a business, Urpelainen and Yoon (2015) recognise “Boond Engineering and Development”\(^4\) as a for-profit social enterprise. These examples clearly emphasise that the social enterprise sector has extended to the for-profit sector, although there is a relative delay in popularising the social enterprise concept in Asia compared to other regions in the world.

However, it is interesting to note that “the operational definition of social enterprise in the context of developing countries, more especially in Bangladesh, comprises criteria such as: being run by non-governmental organisations following an integrated/hybrid approach; being reassembled with its organisational mission, vision, and value; addressing society’s and its
clients’ (employees’) needs; achieving financial returns while fulfilling social, environmental, and/or other developmental goals, mainly poverty alleviation; and working in conditions where formal institutions, governments, or markets have failed to ensure social justice” (Cho & Sultana, 2015, p. 296). It was also found that in some occasions, Asian literature refers non-governmental organisations to social enterprises. This was clearly visible in Alur & Schoormas’s (2011) explanation about the role of social enterprises where they mention that “without significant government investment, social enterprises (commonly called non-governmental organisations or NGOs) operate in BOP markets to fill deficient government service provision”.

To conclude, the above discussion highlights that pursuing a social mission has been a common characteristic among social enterprises across the world. However, legal definitions and structures of social enterprise tend to vary within regions and across the world. Hence, broader differences can be expected in terms of use, understanding and policy approaches to social enterprises between the countries.

3.5.2 Social Innovativeness in Social Enterprises

The emergence, viability and transfer of social innovation are determined by a strategic orientation towards social innovation, which is social innovativeness (Glänzel et al., 2013). Although the social dimension of innovativeness makes social innovation responses efficient, effective and sustainable, limited attention has been paid to the concept in innovation research (Alegre & Berbegal-Mirabent, 2016). Moreover, it is hard to find theoretical work on conceptualising social innovativeness in the literature except for the mere mentioning by Glänzel et al. (2013) in one of the TEPSIE (2015) research projects. Since the field is still nascent and emerging (Krlev et al., 2014), a large number of definitions have been proliferating, creating conceptual differences and complexities. There is a lack of consensus
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among scholars on what social innovation is, indicating the heavy fragmentation of the field. Although these definitions address different things, they are heavily cognate within a conceptual field with a loosely defined scope (Howaldt & Schwarz, 2010). Social innovation theory lags behind practice (Nicholls et al., 2015) and this may impede research endeavours to conceptualise, establish its socioeconomic underpinnings (Grimm et al., 2013) and acquire legitimisation. “While we often focus on extending our knowledge by testing relationships with a focal construct in a variety of settings and contexts, our ability to build on previous work requires that our conceptualisations and definitions be consistent and that our work refine our theoretical definitions rather than redefine them”, according to George and Marino (2011a, p. 993).

Therefore, following George and Marino (2011a), this thesis applies “concept travelling” to conceptualise social innovativeness based on the mainstream innovativeness/innovation orientation literature. Clarifying and recommending the approach of concept travelling, George and Marino (2011a) went on to say that a concept can be applied to a new setting by either concept travelling or concept stretching. Concept travelling increases the extension and decreases the intension of a concept while concept stretching increases the concept extension and either maintains or increases the concept intension. Following Osigweh (1989) and Satori (1970), George and Marino recommend concept travelling, as it ensures conceptual precision while increasing the generalisability of the concept.

Following the above recommendations, this thesis identifies a definition that can be built based on the innovation orientation concept discussed previously. Accordingly, as emphasised by Siguaw et al. (2006), an innovation orientation view is a holistic perspective on innovation with the capacity of distinguishing between the innovation–orientation system, its potential organisational competencies, and related outcomes such as innovation and firm performance,
which lead to broad strategic consequences beyond simple innovation counts. According to Glänzel et al. (2013, p. 55) in the context of social innovation, “this orientation will be manifested at the mission level of the organisation as well as in the distinct goals the organisation sets. In consequence, it will become visible at the level of organisational procedures and practices. Multiple-stakeholder cooperation across sector boundaries will be one such trait”. This organisational manifestation of social innovation provides the direction towards an organisation-wide commitment to more and faster innovations (Siguaw et al., 2006). Moreover, Morris, Webb and Franklin (2011) emphasise that innovativeness in the non-profit context is mainly comprised of an emphasis on innovation directed at core mission achievement (e.g. increasing efficiencies, serving more individuals, or enhancing services); generating new sources of revenue (e.g. from selling products or launching ventures that are supplementary to or independent of the social mission); and revenue generation and mission accomplishment.

It is apparent that the dimensionality of social innovativeness in a social enterprise context mirrors its dimensionality in commercial firms while suggesting modifications in terms of motives, processes and outcomes surrounding entrepreneurial behaviour in social enterprises. This is because the conceptualisation of innovativeness is based on how an organisation arranges its core activities and behaviours towards its strategic direction, rather than in terms of what end these activities are directed (Morris et al., 2011). Moreover, conducting a comparative study on entrepreneurial orientation in non-profit nursing homes, Davis, Marino, Aaron and Tolbert (2009) suggest that over time non-profit nursing homes will be less distinguishable from for-profit homes in terms of strategies employed and organisational structure, as firms of both types use similar tactics to seek legitimacy with key stakeholders. Yet, they further mention that the specific nature or type of entrepreneurial strategic activities they engage in may vary depending on the emphasis placed on the particular stakeholder group
each type of organisation is trying to serve or the environment in which each organisation exists. Based on rational choice theory, Pearce, John, Fritz and Davis (2010) state that innovativeness reflects an organisation’s efforts to pursue new combinations that improve operations or provide a new basis for meeting consumer needs, and also the willingness of an organisation to support new ideas, novelty and experimentation, and to depart from existing technologies and practices. The above theoretical clarifications highlight that social innovation, social enterprise and social entrepreneurship scholarly work also build on mainstream innovation and entrepreneurship literature (e.g. Coombes, Morris, Allen & Webb, 2011; Morris et al., 2011; Pearce et al., 2010; Perri, 1993). Also, when a social innovation orientation is manifested in the strategy of an organisation, social innovativeness will be more developed (Glänzel et al., 2013). Therefore, in this thesis social innovativeness is defined as the openness of organisational culture towards innovative ideas in pursuing the social mission of the social enterprise.

3.5.3 Australian Social Enterprise Sector

The Australian social enterprise sector is not a legally established sector like that found in the UK, but mixed with the not-for-profit sector. As a result, a legal definition clarifying the specificities of social enterprises cannot be seen in this context. However, a majority of researchers, practitioners and government policy makers heavily use the definition provided by Social Traders (2016b) and accordingly, a social enterprise is defined as:

*The enterprise has a defined primary social (this includes environmental or other public benefit) purpose and is able to provide evidence of its achievement; the enterprise derives a substantial portion of its income from trade; the enterprise reinvests 50 per cent or more any annual profits made towards achieving the social purpose.* (Social Traders, 2016b)
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Social enterprises can be either a for-profit or not-for-profit organisation or a hybrid form in the Australian context, but there are no special corporate structures as is the case in the US (benefit corporations) and the UK (community interest companies). Yet, certifications awarded by international B-Lab⁵ such as ‘Certified B Corporation’ are available for Australian for-profit businesses including social enterprises (Justice Connect, 2014). In Australia, there is no mandatory requirement to incorporate a social enterprise and hence the organisation can select either of four main alternatives: unincorporation, incorporation, joins with another organisation or auspicing. With respect to auspicing, this:

normally involves an auspicing agreement between your group and the auspicing body. An auspice agreement is basically an agreement to work with another organisation, and a way for an organisation to access funding without being incorporated. Under an auspicing agreement, one organisation (the principal organisation) agrees to apply for funding for another person or group (the auspicee), and if the funding is received, the principal organisation receives, holds, and disperses the funding to the auspice for their project. (Justice Connect, 2014, p. 12)

It is essential to note that only not-for-profit organisations can be registered, not hybrid organisations and private social enterprises, and the regulations are stipulated and monitored by the Australian Charities and Not-for-profits Commission (ACNC). There are five legal structures available for an incorporated hybrid social enterprise: private company limited, incorporated association (Inc), company limited by guarantee (Ltd), cooperative, and Indigenous corporation. Not-for profit social enterprises can also be incorporated under the above legal structures except for private company limited. Figure 11 shows a social enterprise run by a private company (A) and a not-for-profit social enterprise (B).
Providing a snapshot of the social enterprise sector of Australia, Barraket, Mason and Blain (2016b) state that 73% are small businesses, 23% are medium sized and 4% are large organisations. Further, 38% of social enterprises have been in operation for 10 years while 34% have been in operation for between two and five years. Thirty-three per cent of these enterprises are incorporated associations, 32% are companies limited by guarantee and 18% are proprietary limited (Pty Ltd) companies. According to Victoria State Government (2017), there are around 20,000 social enterprises operating across Australia and a quarter of these are located in Victoria. Figure 12 exhibits the concentration of social enterprises in Australian states.
Further, the Social Enterprise Strategy by Victoria State Government (2017) identifies that 35% of social enterprises target people with disabilities, 33% target young people and 28% focus on disadvantaged women. These social enterprises are mainly motivated by employment generation, profit redistribution and community needs.

3.5.4 Social Enterprise Research in Australia

Social enterprise is recognised as a growing force in the Australian economy (McQuilten, 2017). Following this trend, yet given the absence of a legally defined social enterprise sector in Australia, terms such as ‘non-profit organisation’ (NPO), ‘social purpose organisation’ and ‘social business’ are interchangeably used to refer to social enterprises. Therefore, considering the use of such terms, a search was conducted in the Scopus database to gain an overview of publication growth in Australian social enterprise and non-profit research. The search generated 304 journal articles and reviews and the distribution is portrayed in Figure 13. The sector-related research has a long history and follows an upward growth pattern from 1983 to
2018. Although there is no sector-specific definition in Australia, a social enterprise is considered a hybrid organisational form that combines characteristics of for-profit businesses and community sector organisations (Eversole, Barraket & Luke, 2014).

Social enterprise is also recognised as market-based activity which can enhance both interdependence and independence of people (Tedmanson & Guerin, 2011). Studying Tasmanian social enterprises, Eversole (2013) revealed that numerous Tasmanian organisations identified as social enterprises, yet these organisations shared no common organisational structure, development mission or industry. Instead, they shared a common way to approach local development issues, with a boundary crossing mechanism that leverages resources and support across sectors and overcomes silos.

The strong interest towards social enterprise concept and practice in Australia may be due to social and economic impacts created by these entities. For instance, Australian social enterprise researchers observe a greater potential of social enterprises for local job creation and stimulating new entrepreneurship across the service, manufacturing and retail industries.

Source: Excel output based on Scopus data
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(McQuilten, 2017). Social enterprises mobilise multiple resources and assets to achieve a range of local development outcomes, including social capital (Eversole et al., 2014), and are a promising employment option (Smith, McVilly, McGillivray & Chan, 2018). Social enterprises build social capital, which supports social well-being. Social enterprise activities can assuage the disempowering activities of a welfare economy through shifting the focus onto productive activities generated on people’s own terms (Tedmanson & Guerin, 2011).

Initial social enterprise research in the Australian context has focused on rural and community development actions (e.g. Crofts & Begg, 2005; Eversole et al., 2014; O'Toole & Burdess, 2004). However, this emphasis is continuing by linking to various managerial theories of organisations. For instance, in a recent study, Barth, Barraket, Luke and McLaughlin (2015) investigate utilisation of institutional logics as a theoretical framework for understanding the role of social enterprises in regional development. They argue that dominant institutional logics can promote or constrain the interplay between the social and the economic aspects of development, in the context of social enterprises (Barth et al., 2015). Other areas of interest include contribution of social enterprises to social and emotional well-being (Gooda, 2011), social cohesion (Kong, 2011) and social impact measurement evaluation (Barraket & Yousefpour, 2013).

Current Australian social enterprise research seems to focus more on managerial applications in organisational settings in a similar way that Doherty et al. (2014) identified in their review of the social enterprise literature. Thus, social enterprise researchers have recently focused on managerial applications in legitimising social enterprise work. For instance, Islam (2017) identifies disclosure of social value creation as a legitimisation strategy. He also finds that Australian social enterprises tend to have a disconnection between disclosure and action. Moreover, Barraket et al. (2016a) propose business planning activities as a function of
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legitimacy formation among Australian social enterprises since such processes serve unique communicative and relational functions among social enterprises given the demands of external stakeholders. A large number of discussions on social enterprises pertaining to mental health issues have been carried out by Australian researchers (Raeburn, Hungerford, Sayers, Escott, Lopez & Cleary, 2015). Marketing practices in social enterprise have also been a key recent topic in this context. For instance, Miles et al. (2014) have studied marketing practices of social enterprises and proposed that social enterprises may benefit by leveraging marketing capabilities to better serve their beneficiaries and stakeholders.

One of the unique focuses and themes of Australian social enterprise research is about Indigenous social enterprises. Recent research has looked into the performance and need for targeted government policy intervention (e.g. Spencer, Brueckner, Wise & Marika, 2016) to encourage the formation of entrepreneurial and innovative social enterprise solutions for poverty and marginalisation (Spencer et al., 2016). This is because Indigenous social enterprise research recognises social enterprises as “third space” enterprises, and an assimilation pressure–free alternative pathway for Indigenous economic participation (Brueckner, Spencer, Wise & Marika, 2016). Moreover, this special focus research emphasises the role of social enterprises as a way of capacity development, emerging as a business-led development approach (Spencer, Brueckner, Wise & Marika, 2017).

Reflecting on new trends, Australian social enterprise research is focusing on new contexts such as arts and fashion (McQuilten, 2017), which is considered as a way of contributing to sustainable community development. Further, social franchising (Crawford-Spencer & Cantatore, 2016) has been a new area of social enterprise research in the Australian context. Social franchising has been utilised by social enterprises in a variety of ways, yet franchising
as a marketing channel structure in the social enterprise context is a relatively new area of research and a new trend in Australia.

However, there is a very limited focus on social capital, innovativeness and knowledge creation in Australian social enterprise research. Social capital focusing studies have mainly examined the social capital created by the social enterprise – community social capital development. Social capital of social enterprises and the opportunities it presents for collaboration and sustainability (Jenner & Oprescu, 2016) is a very recent topic in this area and implications emphasise that social enterprise leaders must develop new capabilities and strategies to access the additional benefits of social capital. Although there is a trend of investigating managerial aspects of social enterprises in Australian research, there seems to be less research focus on innovativeness and innovation.

### 3.6 SUMMARY

This chapter has focused on explaining the concepts of social innovation, social entrepreneurship and social enterprise and identified that these concepts are undeniably linked but distinctive. Social entrepreneurship and social enterprise concepts are embedded in the concept of social innovation. Social enterprise is considered as the main vehicle of carrying social enterprises and hence the most representative driver of social innovation. The main differentiator of a social enterprise is its social mission. Depending on the countries and regions, definitions and governance structures are different. There is substantial development in the Australian social enterprise sector, although it is not a legally defined sector. Inclusion of multiple structures and Indigenous social enterprise are unique to the Australian social enterprise sector, and the sector’s research focus is on an upward trend, although it is emerging compared to other country contexts. However, new areas of investigation such as social
franchising and new areas of application such as arts and fashion are indicative that the Australian social enterprise sector is a promising area of scholarly investigation. The next chapter focuses on raising research questions, developing models and establishing hypotheses to be tested in the thesis.
CHAPTER 4: RESEARCH QUESTIONS, MODELS AND HYPOTHESES

4.1 OBJECTIVE

The objective of this chapter is to inform the development of the main conceptual model of the thesis and hypotheses on the relationship between OSC and social innovativeness based on the insights gained from chapters 2 and 3. The integrated model underpins the argument that opportunity-motivation-ability and knowledge creation sequentially form the mediatory process of the relationship between OSC and social innovativeness. Therefore, firstly, the development of the integrated model is illustrated by three simple and testable frameworks of social capital dimensions: structural, relational and cognitive. Hypotheses will accordingly be developed and justified under each of the three simple models. Secondly, the integrated model combining the three simple models is presented and explained.

4.2 OVERARCHING RESEARCH QUESTION OF THE THESIS

Emerging tensions created by multiple stakeholder demands and conflicting logics of dual mission (Teasdale, 2012) and increasing competition (Choi & Choi, 2014; Jaskyte & Dressler, 2005) create the challenge of renewal and innovation for social enterprises. Innovation is a key dynamic capability which addresses the challenges of rapidly changing environments (Camps & Marques, 2014). These dynamic capabilities are rooted in organisational processes and behavioural orientations of an organisation constantly “integrating, reconfiguring, renewing and recreating resources and capabilities” (Wang & Ahmed, 2004, p. 31). Therefore, specific innovations are not the critical determinants of organisational long-term success but instead, the overall innovation tendency/innovativeness. What is important is to focus on the general value emanating from creativity and innovation: an orientation towards risk, and the
enthusiasm and pride of organisational members to commit to an aggressive innovation strategy (Amabile, 1997). Hence, innovativeness (Hult et al., 2004) may be the most important factor in initiating innovation activities and ultimately improving innovation outcomes in the non-profit sector (Choi & Choi, 2014).

However, most innovation studies conceptualise innovation in a narrow and reductionist view. Defining and measuring innovation in discrete single terms doesn’t reflect the long-term impact and true focus of innovation. Further, the narrow conceptualisations in innovation studies often ignore the overall propensity of an organisation to continuously innovate as an organisational objective (Siguaw et al., 2006). Innovativeness encourages entry into new areas, renews presence in existing domains and allows the ability to consider novel possibilities (Cho & Pucik, 2005). Understanding innovativeness of organisations is critical to managers (Quintane et al., 2011). Yet, the understanding of innovative behaviours of organisations remains inconclusive and inconsistent (Cho & Pucik, 2005). Moreover, there is a “limited contribution to understanding the determinants and process of innovation and the relative innovativeness of social enterprises when compared with other organisational forms” (Doherty et al., 2014, p. 423). Therefore, it is important to understand not simply what is necessary to foster innovativeness but also the mechanism of how it develops within the complex social enterprise setting.

A knowledge-based view of firms (Argote & Ingram, 2000; Grant, 1996) recognises knowledge as a strategic asset that enables firms to sustain distinctive competencies and discover innovation opportunities (Chen, 2004; Grant, 1996). Effective management of knowledge is a source of organisational innovativeness (Chen, Huang & Hsiao, 2010a). Knowledge is often generated through social interactions (Cohen & Levinthal, 1990; Kogut & Zander, 1992) and resource integration (Collinson, 2000). The existing literature reports on the
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importance of social capital for innovation (Dakhli & De Clercq, 2004; McFadyen & Cannella Jr, 2004b; Sanchez–Famoso et al., 2015; Smith et al., 2005) noting that most of the activities leading to innovation depend on social capital (Sanchez-Famoso et al., 2014). In this manner, OSC critically determines dynamic capability–driven organisational processes (Camps & Marques, 2014). Therefore, OSC is considered the bedrock of innovation (Subramaniam & Youndt, 2005).

Innovation literature has extensively related Nahapiet and Ghoshal (1998)’s OSC dimensions to innovation with mixed findings (e.g. Dakhli & De Clercq, 2004; McFadyen & Cannella Jr, 2004a; Sanchez-Famoso et al., 2015; Smith et al., 2005). Given these mixed findings, the review by Filieri and Alguezau (2014, p. 748) found that OSC has been viewed as a “black box of producing innovation” rather than an investigation of the “mediatory processes and capabilities” which transform knowledge into innovation.

Organisational social capital has no direct impact on innovation (Filieri & Alguezau, 2014; Shu et al., 2012; Yli-Renko et al., 2001), whereas value creation is realised only through knowledge resource exchange and combination processes (Maurer et al., 2011a; Nahapiet & Ghoshal, 1998) or knowledge creation (Shu et al., 2012). Building on Schumpeter (1934a), Moran and Ghoshal (1996) argue that new resources including knowledge are created by two major process: combination –creation of knowledge either through incremental or radical changes to the existing knowledge; and exchange – transfer of explicit knowledge held among the different parties to others in the organisation (Nahapiet & Ghoshal, 1998). Social capital facilitates knowledge creation by providing access to relevant knowledge, providing a common interest with mutual trust and appreciation of the value of others’ knowledge (Van den Hooff & de Leeuw van Weenen, 2004). Therefore, firstly, this thesis argues that innovativeness originates in the employee’s involvement in organisational knowledge creation practices.
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building on multiple knowledge domains (Floyd & Lane, 2000). Hence, knowledge creation can be considered as a key explanatory mechanism mediating between internal social capital and innovativeness.

Secondly, this thesis argues that the mere existence of OSC does not trigger knowledge resources embedded in social relationships by itself, but needs opportunities, motivation and ability – that is, opportunity-motivation-ability factors (Argote, McEvily & Reagans, 2003) – which are also considered to be the prerequisites of knowledge creation (Argote & Ingram, 2000; Nahapiet & Ghoshal, 1998; Shu et al., 2012). Based on Moran and Ghoshal (1996), the extant literature argues that successful knowledge creation will take place only if several conditions are met by any given situation. These are the existence of potential opportunities for exchange, motivation to exchange⁹ (Argote & Ingram, 2000; Moran & Ghoshal, 1996; Nahapiet & Ghoshal, 1998) and combination capability (Argote & Ingram, 2000; Nahapiet & Ghoshal, 1998). Opportunity, motivation and ability are considered as knowledge management mechanism (Argote et al., 2003); corporate entrepreneurship facilitators (Turner & Pennington, 2015); and behavioural changing factors in operations management context (Siemsen et al., 2008). These three factors are widely known to be MOA factors and form a robust framework for identifying the essential relationships needed to manage knowledge creation, leading to innovation (Turner & Pennington, 2015). The inclusion of opportunity-motivation-ability and knowledge creation adds an essential functionality which was largely omitted in modeling the said relationship by the extant literature to explain the process behind social capital execution for innovation development. Therefore, when the first and second arguments are taken together, the overarching research question underpinning the thesis is:

In what ways do OSC, opportunity-motivation-ability factors and knowledge creation explain social innovativeness of Australian social enterprises?
This central research question is expanded into two sub-research questions and the following section discusses the derivation of them in detail. In addition, hypotheses informed by the research questions are also presented and justified during the discussion, adding more clarity and rigour to the theoretical elucidation of the chapter.

4.2.1 Sub-research Question 1

Social enterprise discussions surrounded by welfare economics advocate that social enterprises are a way to meet social demands through social innovations led by enterprising people (Thompson, 2002). Therefore, social enterprises are tasked with providing innovative strategies that will creatively destroy whole sectors (Ormiston & Seymour, 2011). However, the potential of social innovation is likely to be realised through emulation and direct diffusion through an organisational base, which provides the resilience to stick with an innovation through periods of setback and defeat (Mulgan et al., 2007). The structural characteristics of social enterprises have made them more likely to be vehicles of pure social innovation than other types of organisations (Borzaga & Bodini, 2014). They provide a favourable ground (De Souza João & Galina, 2015) with better institutional arrangements to implement, replicate and scale up (Borzaga & Bodini, 2014). Therefore, the most representative driver of social innovation is social enterprises (Habisch & Adaui, 2013; TEPSIE, 2015).

The emergence, viability and transfer of social innovation are determined by an organisational manifestation of the strategic orientation towards social innovation (Glänzel et al., 2013), which is social innovativeness. Yet, far too little attention has been paid to the social innovativeness concept by existing accounts of social innovation. In general, social enterprises are more innovative than traditional businesses (Maas & Grieco, 2017). Furthermore, some scholars recognise innovativeness as an important feature of social enterprises (e.g. Alvord et al., 2004; Chell et al., 2010; Choi & Majumdar, 2015; Peredo & McLean, 2006). Yet, some
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scholars argue that the social innovation produced by social enterprises has largely been presumed rather than empirically demonstrated (e.g. Barraket & Furneaux, 2012b). Moreover, TEPSIE (2015) states that there is often an implicit assumption that social enterprises are by nature new, entrepreneurial and innovative. These assumption-based arguments are a clear indication of the dearth of literature addressing innovativeness of social enterprises. Hence, it is asked:

**Sub-research Question 1: To what extent are social enterprises socially innovative?**

4.2.2 **Sub-research Question 2**

The emerging tensions created by multiple stakeholder demands, conflicting logics of dual mission (Teasdale, 2012) and increasing competition (Choi & Choi, 2014; Jaskyte & Dressler, 2005) have led to the challenge of renewal and innovation for social enterprises. Innovativeness (Hult et al., 2004) may be the most important factor in initiating innovation activities and ultimately improving innovation outcomes in the non-profit sector (Choi & Choi, 2014). Given the strategic importance of innovativeness as a prerequisite for the survival and success of an organisation (Rhee et al., 2010), several recent studies have set out to analyse the key determinants of firm innovativeness (e.g. Dunne et al., 2016; Eggers et al., 2014; Kach et al., 2016; Kyrgidou & Spyropoulou, 2013; Parra-Requena et al., 2015) and its effect on firm performance (e.g. Dibrell et al., 2014; Kyrgidou & Spyropoulou, 2013). Further, an extensive body of this work has focused on technological firms, small businesses and other commercial sectors (Rubera & Kirca, 2012).

Despite the influential and enduring theoretical insights generated by these scholarly works, the question remains as to the mechanism of how innovativeness emerges and pervades the organisational setting. There is a limited understanding of the mechanisms through which innovativeness can be enhanced and facilitate improved performance outcomes (Kyrgidou &
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Spyropoulou, 2013). While the research on innovative behaviours of organisations remains inconclusive and inconsistent (Cho & Pucik, 2005), specifically, there is also a limited understanding of the innovation process and the innovativeness of social enterprises compared to other organisational forms (Doherty et al., 2014, p. 423). Therefore, it is important to understand not simply what is necessary to foster innovativeness in social enterprises but also the mechanism of how it develops within the complex social enterprise setting. This thesis focuses on extending this line of work by conceptually relating OSC to social innovativeness of social enterprises with the proposed explanatory mechanisms of opportunity-motivation-ability and knowledge creation.

Knowledge creation–driven organisational culture would be a necessary premise in order to create an innovative, flexible, effective and efficient (Lettieri et al., 2004) social enterprise. This ensures sustainability and rapid adaptation to dynamic environments (Cantu & Mondragon, 2016) given that social enterprises are knowledge intensive organisations (Bloice & Burnett, 2016; Lettieri et al., 2004). However, there is a paucity of studies examining the organisational mechanism of deploying knowledge strategically into the innovation process in the not-for-profit sector (Cantu & Mondragon, 2016; Koch, 2011).

The existing literature reports on the importance of social capital for innovation (Dakhli & De Clercq, 2004; McFadyen & Cannella Jr, 2004b; Sanchez–Famoso et al., 2015; Smith et al., 2005) noting that most of the activities leading to innovation depend on social capital (Sanchez–Famoso et al., 2014). However, the understanding of the link between social capital and innovativeness is incomplete as the “mediatory processes and capabilities” which transform knowledge into innovation have been overlooked (Filieri & Alguezaua, 2014, p. 748). This limits the understanding of mechanisms through which social innovativeness can be enhanced and facilitate improved innovation outcomes. Moran and Ghoshal (1996) argued that all new
resources, including knowledge, are created through two generic processes: exchange and combination. Since the organisational innovation process deals with recombining existing knowledge, social capital provides it with a mechanism to access the rare resources enhancing innovation capability (Fleming & Sorenson, 2001). And especially, when knowledge is in its tacit form, creating difficulties of sharing, trust and trustworthiness among organisational members, social capital makes knowledge exchange easier (Yu, 2013). Knowledge exchange increases the possibility of new combinations of existing and new knowledge resulting in process improvements or novel products (Kogut & Zander, 1992; Spencer, 2003; Tsai & Ghoshal, 1998). The heterogeneity of a firm’s knowledge facilitates the development of new resource combinations, stimulating creativity, experimentation and the development of new ideas (Rodan & Galunic, 2004). This heterogeneous and valuable knowledge is more accessible for firms that belong to dense networks with trust linkages and cognitive proximity. The availability of dense, trusted and cognitively proximate relationships generates a generally favorable context for innovative action, but it is not a sufficient condition to lead firms to innovativeness. Hence, this thesis argues that the mere existence of OSC does not trigger knowledge resources embedded in social relationships by itself, but needs opportunity, motivation and ability – these three factors being the prerequisites of knowledge creation (Argote & Ingram, 2000; Nahapiet & Ghoshal, 1998; Shu et al., 2012). However, the extant literature largely ignored this aspect in modelling the relationship between OSC and innovation. Therefore, this thesis asks:

**Sub-research Question 2: How do opportunity-motivation-ability and knowledge creation mediate the relationship between OSC and social innovativeness of Australian social enterprises?**

This thesis believes that opportunity-motivation-ability form a robust framework for identifying the essential relationships needed to manage knowledge creation leading to
innovation (Turner & Pennington, 2015). The inclusion of opportunity-motivation-ability and knowledge creation added an essential functionality which was largely omitted in modeling the said relationship through the extant literature.

4.3 HYPOTHESES DEVELOPMENT OF THE THESIS

The following section focuses on establishing hypotheses informed by sub-research question 2 above. Based on the arguments made above, a conceptual framework was built; its development is informed by three separate models based on OSC dimensions.

4.3.1 Structural Social Capital and Social Innovativeness Model

Structural social capital is assessed from three different perspectives: network ties – absence or presence of ties (e.g. Wasserman & Faust, 1994); network configurations – structure of the ties (e.g. density, connectivity and hierarchy) (e.g. Smith et al., 2005); and appropriable organisation – the existence of networks created for one purpose which can be used for another purpose (e.g. Fukuyama, 2001). This thesis frames structural social capital from a network configuration perspective, which is considered to be more precise (Adler & Kwon, 2002), and tie strength is used to assess the dimension. The central notion of network ties is that they are the primary unit of social capital, providing access to knowledge resource exchange opportunities. As emphasised by Granovetter (1973), tie strength is determined by frequency of contacts, reciprocity, obligations and friendship; hence, tie strength is the degree of closeness and the solidity of relationship history among organisational members.

The hypothesised model of structural social capital and social innovativeness is depicted in Figure 14. Tie strength is related to opportunities for exchange. Knowledge creation mediates the relationship between opportunities for knowledge exchange and social innovativeness.
In social network approaches to social capital theory it is assumed that an individual has limited time and energy to devote to social relationships, which encourages individuals to make strategic decisions associated with relationships and resource sharing (Seibert, Kraimer & Liden, 2001). The social capital and knowledge management literature tend to directly relate social capital with knowledge exchange. Organisational members with strong network ties actively engage in knowledge creation activities (Akhavan & Hosseini, 2016; Chow & Chan, 2008). Yet, the action/behaviour of knowledge exchange or creation is not executed by strong ties but instead develops a needed environmental context. Therefore, this thesis argues that strong ties create the enabling context, or a favourable juncture for knowledge sharing, by developing mutual confidence and readiness among members creating intensive interactions. Consequently, this will reduce interaction uncertainty, and the amount of time and effort needed to access knowledge sources with greater intensity, frequency, flexibility and breadth (Amayah, 2013; Camps & Marques, 2014; Larson, 1992; Nahapiet & Ghoshal, 1998), as well as increase exchange efficiency and improve quality of information (Camps & Marques, 2014; Reagans & McEvily, 2003). These encouraging contexts are known as opportunities to knowledge exchange. As stated by Maurer et al. (2011b), the higher the number of ties

Source: Researcher
available, the more opportunities there are for knowledge creation, easiness and extent of transfer. Hence, this thesis relates tie strength with opportunities to knowledge exchange. This means that organisational members who have stronger ties, compared to other members, will have greater access to other social groups of the organisation. This is because the instrumental behaviour of strong ties develops the necessary context (opportunities for knowledge exchange) to activate knowledge resource exchange. Strong ties engender mutual trust and willingness to collaborate (Coleman, 1988; Smith et al., 2005). When an organisational member is convinced that intimate personal relationships will result in favourable actions and ensure the reliability and richness of knowledge, the proclivity of exchanging ideas and resources among close relationships will be higher (Luo, 1997). This in turn enables members to learn the new technologies, ideas and opportunities needed to enhance innovativeness (Moran, 2005). Thus, Hypothesis 1 states that within the organisational context, tie strength is related to opportunities to exchange.

**Hypothesis 1: The stronger the internal ties, the more there are opportunities to knowledge exchange.**

As discussed previously, opportunities include the context through which knowledge creation behaviours are encouraged (Turner & Pennington, 2015). Management support, autonomy, entrepreneurial action inducing organisational design and culture are some of the structural organisational arrangements which develop a conducive climate for opportunities to knowledge (Hornsby, Kuratko & Zahra, 2002). Therefore, activities such as the transfer of routines, tools and technology across units within organisations allow the members of a recipient unit to benefit from knowledge acquired from a previous unit (Winter & Szulanski, 2001). In addition, personal movements and informal connections encouraged by the organisational culture and worker autonomy allow members to share the knowledge
Organisational Social Capital and Social Innovativeness

accumulated by close internal/external associates (Hansen et al., 2005; Reagans & McEvily, 2003; Song et al., 2003; Uzzi & Lancaster, 2003). Thus, opportunities to exchange play a major role in knowledge sharing as tacit knowledge transmission results from a complex, time-consuming osmosis process (Radaelli, Lettieri, Mura & Spiller, 2014). These opportunities provide organisational members with accessibility to realised and shared forms of knowledge (Nahapiet & Ghoshal, 1998). Therefore, this thesis relates opportunities for knowledge exchange with knowledge creation as shown in Hypothesis 2.

Hypothesis 2: The more there are opportunities to exchange, the higher is the level of knowledge creation.

Knowledge creation is an essential drive (Nonaka & Takeuchi, 1995) and pivotal for supporting and promoting favourable innovation outcomes in organisations (Scarbrough, 2003). The knowledge residing in individual members and an effective sharing mechanism will create synergistic learning and thereby make the organisation more innovative (Chen et al., 2010b). Knowledge creation provides organisational members with opportunities to recombine existing knowledge and thereby create new knowledge (Argote et al., 2003). Sharing explicit knowledge leads to recombining existing ideas and is an essential process in being innovative (Kogut & Zander, 1992) since it increases the availability of new knowledge stock (Nonaka & Takeuchi, 1995). This new knowledge helps members to learn new ways of performing and identifying new solutions for problems (Sabherwal & Becerra-Fernandez, 2003) through synergistic benefits and mutual learning. Firms that encourage knowledge sharing tend to generate novel ideas and are open to new business opportunities which in turn facilitate innovation (Darroch & McNaughton, 2002). Therefore, innovativeness may depend upon the organisation’s ability to obtain and share valuable knowledge (Kogut & Zander, 1992). Accordingly, the third hypothesis is proposed:
Hypothesis 3: The higher the level of knowledge creation, the higher is the level of innovativeness of the organisation.

Organisational members who already have strong connections with others can then devote time that could have consumed establishing new ties to other tasks (Hu & Randel, 2014). These members have a high likelihood of having informal face-to-face interactions that minimise the potential for misunderstanding and allow tacit knowledge to be effectively observed and understood (Davenport, Harris & Kohli, 2001). As discussed above, social interaction ties provide access to individuals’ knowledge integration and exchange (Chiu et al., 2006; Nahapiet & Ghoshal, 1998). This is because social interaction enables individuals to enhance the depth, breadth and efficiency of the knowledge they share with other members (Amayah, 2013). Reagans and McEvily (2003) found tie strength and social cohesion are positively associated, making knowledge transfer easier, and proposed that relationships with knowledge recipients may motivate providers to share knowledge.

When controlled for trustworthiness, knowledge recipients with weak ties are found to be higher beneficiaries than those with strong ties (Levin & Cross, 2004). Based on social exchange theory (Emerson, 1981), it is suggested that individuals base their action decisions on reward expectations such as respect, reputation and tangible incentives. Therefore, perceived benefits are positively related to knowledge sharing while perceived costs are negatively related to knowledge sharing. Knowledge sharing is strongly related to organisational members’ beliefs that their shared knowledge is more useful to others than the personal benefits they gain (Chiu et al., 2006; Wasko & Faraj, 2005).

4.3.2 Relational Social Capital and Social Innovation Orientation Model

As explained in Section 2.4.2 (Figure 5), relational social capital is conceptualised with different aspects such as trust and trustworthiness, norms, identification and obligations, and
Organisational Social Capital and Social Innovativeness

expectations. Among these elements, trust often is considered to be the most important (Levin & Cross, 2004). As such, this thesis adapts trust and trustworthiness to represent and conceptualise the relational dimension of OSC hereafter in the discussion. Trust promotes the exchange of resources that enrich a firm’s ability to compete and solve problems (Parra-Requena et al., 2015). Different levels of perceived trust and reliability can result in different levels of exchange and combination of resources between firms, improving their innovativeness (Molina-Morales & Martinez-Fernandez, 2010; Tsai & Ghoshal, 1998). Although, overinvestment in trusting relationships can lead to insufficient monitoring, inhibiting a firm’s access to novel flows of ideas and maintaining routines already known to obstruct innovativeness (Molina-Morales & Martinez-Fernandez, 2010). The hypothesised model on relational social capital and social innovativeness is presented in Figure 15. The relationship between trust and trustworthiness and knowledge creation is parallel, mediated by opportunities for exchange and motivation to exchange. Knowledge creation is directly related to social innovativeness.

Trust is a manager’s positive expectations about others’ motives in risk and vulnerability endowed circumstances. Abrams, Cross, Lesser and Levin (2003, p. 65) clarify two aspects of trust: benevolence trust and competence trust. Benevolence trust is where the organisational member assumes that other colleagues care for him and his well-being and goals. Competence trust is where the organisational member believes in his colleagues’ relevance expertise and expects to depend on colleagues’ knowledge.
Accordingly, benevolence trust allows organisational members to obtain advice from others without fear of condemnation while competence trust ensures the worth of listening and absorbing the knowledge of other trusted colleagues. Both types of trust increase opportunities for knowledge exchange. Higher levels of trust encourage people to discuss the problems they encounter, through which they either acquire new knowledge or enhance their existing knowledge (Akhavan & Hosseini, 2016). In case of tacit knowledge sharing, extensive personal contact and trust are required (Brockmann & Anthony, 2002). Common goals and norms create trust amongst the members of a network and act as a binding force that creates trust (Akhavan & Hosseini, 2016; Tsai & Ghoshal, 1998), leading to increased access to share knowledge (Chiu et al., 2006). Accordingly, trust becomes a necessary element of social capital in moving relationships forward and also an outcome resulting from productive relationships between members. Hence, it is clear that trust nurtures a concentration on future conditions leading to a decline in the possibility of concerns addressing opportunistic behaviour of partners (Wang et al., 2007). Further, trust decreases perceived uncertainty, facilitates risk-
taking behaviour (Parra-Requena et al., 2015) and reduces monitoring costs (Parra-Requena et al., 2015). Trustworthiness is the basis for increased approachability and communication, which increases knowledge sharing (Willem & Scarbrough, 2006). Therefore, this thesis argues that trust offers organisational members increased opportunities and approachability, which gradually result in increased knowledge exchange and combination (Willem & Scarbrough, 2006). As such, Hypothesis 4 is proposed:

**Hypothesis 4:** The higher the perceived trust among the organisational members, the more there are opportunities to knowledge exchange.

According to Davenport, De Long and Beers (1998, p. 45), knowledge is “intimately and inextricably bound to people’s egos and occupations” and is not easily shared with others. Therefore, in the absence of strong internal or external motivation, people do not tend to exchange their knowledge with others (Stenmark, 2000). Given this situation, trust is a relationship quality in which the interaction is marked by the development of goodwill, trust and expectations of reciprocity (Yli-Renko et al., 2001). When there is a strong norm of reciprocity among members, knowledge contributors may feel obliged to share their knowledge (Wasko & Faraj, 2005) and hence create an internal motivation. This is because knowledge receivers are indebted to transfer equivalent knowledge to the knowledge provider. Such reciprocity based on a knowledge exchange relationship is pointed out as a major determinant to encouraging employees to share their knowledge (Akhavan & Hosseini, 2016). Moreover, if the invested efforts in knowledge sharing can be reciprocated, members are motivated to contribute more (Chang & Chuang, 2011). Hence, reciprocal benefits can provide effective motivation to promote knowledge sharing (Kankanahalli, Tan & Wei, 2005; Kittikunchotiwut, 2015). Many authors believe that relationships built on trust increase the willingness to provide valuable knowledge (Bakker, Leenders, Gabbay, Kratzer & Van Engelen, 2006), listen and
absorb each other’s knowledge (Tsai & Ghoshal, 1998). Trust can decrease perceived uncertainty, facilitate risk-taking behaviours and foster a constructive environment, which then enhances the willingness of employees to share tacit knowledge among members (Lin, 2007). Therefore, this thesis relates trust with motivation to knowledge exchange and presents Hypothesis 5.

**Hypothesis 5: The higher the perceived trust among the organisational members, the higher is the motivation to knowledge exchange.**

Motivation is considered to be the most important factor among opportunity-motivation-ability in relation to knowledge exchange and combination (Radaelli et al., 2014). As clarified earlier, motivation reflects on the willingness to exchange knowledge (Siemsen et al., 2008). Knowledge sharing is more likely to occur when individuals are motivated to do so (Chang & Chuang, 2011). This is because organisational members rationally and intentionally decide to engage in knowledge exchange when they positively assess the benefits of such action (Lam & Lambermont-Ford, 2010). Motivation can be extrinsic or intrinsic. Within extrinsic motivation, strong norms of reciprocity among members can make knowledge contributors feel obliged to share their knowledge (Wasko & Faraj, 2005). Intrinsically, potential reciprocal benefits can provide an effective motivation to promote knowledge sharing (Kankanhalli et al., 2005). The perception of socially united identification and togetherness within an organisation (Kramer & Goldman, 1995) enhances collective work and willingness to share knowledge (Kittikunchotiwut, 2015; Kramer & Goldman, 1995), which in turn increases possibilities for knowledge creation (Kramer & Goldman, 1995) with enhanced depth and breadth of shared knowledge. Further, Parra-Requena et al. (2015) have found that there is a strong positive relationship between trust and knowledge acquisition. Furthermore, knowledge sharing is more likely to occur when individuals are motivated to do so (Chang & Chuang, 2011). Even if
people have opportunities and a positive perception, if there is no motivation, they will not share resources. This proposition is stated in Hypothesis 6.

**Hypothesis 6: The higher is the motivation to exchange knowledge, the higher is the level of knowledge creation.**

Higher trust means higher internal knowledge sharing (Tsai & Ghoshal, 1998; Yli-Renko et al., 2001), enabling even the sharing of highly sensitive and confidential information (Yli-Renko et al., 2001). For instance, experiences such as prior personal failures (Luca & Atuahene-Gima, 2007) will be shared, as trust lowers the fear of potential misuse of such knowledge opportunistically by another colleague (McEvily, Perrone & Zaheer, 2003), in turn increasing the access (Nahapiet & Ghoshal, 1998) and opportunities for exchange (Akhavan & Hosseini, 2016; De Clercq et al., 2013b). Trust is not a sufficient condition for a firm to generate innovativeness but the confidence gained through trusted networks plays a key role in the willingness of network actors to share knowledge (Inkpen & Tsang, 2005). Therefore, opportunities to exchange and motivation to exchange are essential mediators to the relationship between relational social capital and social innovativeness.

### 4.3.3 Cognitive Social Capital and Social Innovation Orientation Model

Figure 16 explains the relationship between cognitive social capital and social innovativeness. As elucidated in Section 2.4.3, cognitive social capital has often been conceptualised with shared vision, and shared language and codes (Figure 5). As found by Zheng (2010), there is a paucity of studies investigating cognitive social capital and innovation. Yet, shared vision is an oft-used concept which is significantly related to innovation. Therefore, this thesis conceptualises a cognitive social capital dimension with shared vision and the rest of the discussion will mainly focus on this element.
Shared vision is the common mental model on the future state of the organisation shared by organisational members (Pearce & Ensley, 2004). It is the degree to which network members share a common understanding and approach to the achievement of network tasks and outcomes (Inkpen & Tsang, 2005, p. 153) and agree to work on common tactics or methods as an investment for a long-term relationship. Shared vision clarifies the common goals of the organisation, avoiding potential misunderstandings in communication. This clear communication of common goals and norms builds trust among organisational members, avoiding perception differences which might emanate from misunderstandings. Hence, higher similarity in future targets and common values will enhance relationship status and decrease possible conflicts among members. This will act as a binding force that creates trust (Akhavan & Hosseini, 2016; Tsai & Ghoshal, 1998), leading to increased access to share knowledge (Chiu et al., 2006) and create more opportunities to exchange ideas and resources (Tsai & Ghoshal, 1998). Moreover, this common understanding makes it easier to comprehend the benefits of knowledge exchange by creating more opportunities and access to knowledge sharing (Hu & Randel, 2014; Tsai & Ghoshal, 1998). When managers share the same ideas
about the current and future directions of their organisation, they are more motivated to engage in intensive knowledge sharing, expecting that it will benefit the well-being of the firm and the attainment of its goals (Leana & Van Buren, 1999). Therefore, this thesis argues that a common frame of reference compels organisational members to make available the time necessary for interactions, and support knowledge creation–driven policies and procedures. This supportive environment forms opportunities for knowledge exchange. Accordingly, Hypothesis 7 tests this proposition.

**Hypothesis 7:** The more the organisational members share a common vision, the more there are opportunities to knowledge exchange.

Although organisational members have an intention or willingness to share knowledge, the type of knowledge that is exchanged will be important for them to consider. A shared vision will provide them with a focused frame of reference and an opportunity to learn, which would eventually enhance their ability to exchange and combine knowledge (Chou, Chang, Lin & Chou, 2014). This may result in customised and synergistic knowledge resource exchange and merger within the organisation. This will further enhance the ability to value, assimilate and apply new knowledge towards the organisation’s goal achievement. Common language facilitates access to relations and the information influences perception (Chua, 2002) and creates common frames of references, enhancing combination capability. Accordingly, Hypothesis 8 is proposed:

**Hypothesis 8:** The more the organisational members share a common vision, the higher is the ability of organisational members to exchange and combine knowledge.

Ability is defined as the talent, skills or proficiency in a particular area related to action and whether it could feasibly be shared or coordinated throughout the organisational network. The ability to exchange and combine knowledge is essential given the difficult nature of transmitting knowledge to others (Szulanski, 1996). Members should have the ability to
recognise knowledge and to assimilate and use knowledge given the significant role in organisational learning and innovation (Cohen & Levinthal, 1990). Even though organisational members have the opportunities and motivation to knowledge exchange, absence of the ability to act on those opportunities will hinder knowledge creation (Reinholt, Pedersen & Foss, 2011). This is because the ability to knowledge exchange and combine offers the needed competencies to understand knowledge needs and to customise such needs, which in turn increase knowledge creation. Further, these abilities provide members with necessary confidence in exchanging and combining knowledge. Therefore, this literature informs the development of Hypothesis 9:

**Hypothesis 9:** The higher the ability to exchange and combine knowledge, the higher is the level of knowledge creation.

Cognitive social capital helps organisational members communicate and cooperate more effectively as well as to better express and understand shared knowledge, especially the tacit knowledge embedded in a particular context (Hu & Randel, 2014). Aligned goals enhance loyalty to the organisation, with increased willingness invest to time and effort in sharing expertise and insights (Nahapiet & Ghoshal, 1998). It was identified above that shared understandings enhance the ability to exchange and combine by avoiding potential misunderstandings and improving the understanding of what to exchange to achieve organisational goals. Yet, having ability and willingness is not sufficient to drive the knowledge exchange process. Motivated and able organisational employees must have opportunities to exchange (Radaelli et al., 2014). Access to multiple knowledge sources will enhance the quantity, quality and depth of knowledge created by organisational members (Argote & Ingram, 2000; Reagans & McEvily, 2003) and this in turn results in higher innovation capacity.
4.4 INTEGRATED CONCEPTUAL MODEL OF THE THESIS

Based on the above discussion, the overall synthesis of the relationship between OSC and social innovativeness clarified by this thesis can be depicted as Figure 17. Accordingly, OSC dimensions – structural, relational and cognitive social capital – are related to opportunity-motivation-ability: that is, opportunities to knowledge exchange, motivation to knowledge exchange, and ability to exchange and combine. The effects of opportunity-motivation-ability on innovativeness is mediated by knowledge creation. Further, social capital provides channels to knowledge transmission and thereby to creating knowledge, while opportunities to exchange, motivation to exchange and ability to exchange play the mechanistic role in activating OSC. Strong ties facilitate knowledge exchange and combination by providing access to exchange and building the needed context for action to take place (Koka & Prescott, 2002; Radaelli et al., 2014).

The cohesion generated by a dense network increases the scope and speed of transfer while also preventing opportunistic behaviours (Moran, 2005). A relational dimension based on organisational trust enhances the willingness of organisational members to share knowledge, while shared cognition provides them with a common understanding of a common goal and a common bond (Chiu et al., 2006).

Therefore, the resources embedded in structural, relational and cognitive aspects of social relations are activated by opportunities, motivation and ability to exchange and they, in turn, increase knowledge creation. This process drives the capacity of an organisation to innovate.
Therefore, by introducing opportunity-motivation-ability to model the relationship between OSC and social innovativeness, more functionality reflecting organisational processes can be obtained to explain the pragmatic complexities of the said relationship. Deep understanding of the effects of OSC dimensions provides important theoretical and research implications for
knowledge-intensive social enterprises. A study promoting a detailed understanding of social innovativeness would shed light on how innovativeness could be enhanced by building up structural, relational and cognitive relationships.

4.5 SUMMARY

This thesis argues that the specific innovation outcomes of a firm at a given point in time don’t protect the firm from competitive attacks in the long run and such conceptualisations do not capture the true focus of innovation and its long-term impact (Hult et al., 2004). Hence, the innovativeness of an organisation needs to be interpreted and analysed in terms of the process view, where it is assumed that performance gains are embedded in organisational culture. Innovation as a dynamic capability is generally rooted in behavioural orientations and organisational processes of an organisation. OSC is a key determinant of these orientations and processes. However, extant literature often relates OSC with innovation without considering the mediating processes and mechanisms of this relationship. Therefore, this thesis argues that opportunities, motivation and abilities to exchange and combine knowledge, along with knowledge creation, form the mediating mechanism of the OSC and social innovativeness relationship. This argument is based on the nine hypotheses explained in this chapter under three simple testable models, with a final integrated model. The next chapter focuses on clarifying the methodological approach taken by this thesis.
CHAPTER 5: RESEARCH METHODOLOGY

5.1 OBJECTIVE

The central research question of the thesis calls for a theory testing approach and hence, the previous chapter justified the establishment of nine hypotheses. The purpose of this chapter is to detail the methodological approach taken by the thesis to test the specified theory. First, the rationale of the underpinning philosophical and theoretical stance of this approach is clarified. An overview of the research design is presented next. Sample, data collection and data analysis methods are subsequently explained in detail.

5.2 PHILOSOPHICAL STANCE OF THE STUDY

The philosophical bearing which guides the methodological approach of a study can be explained based on ontological and epistemological backgrounds, together known as either worldviews (Creswell & Clark, 2011) or paradigms (Kuhn, 1970) (see Table 6). A paradigm is a set of beliefs and assumptions by a community of specialists. There are three main paradigms – post-positivism, constructivism and pragmatism (Creswell & Clark, 2011) – or approaches; that is, qualitative, quantitative and mixed method research (Johnson & Onwuegbuzie, 2004), as presented in Table 6.

The philosophical stance of this study embraces pragmatism and believes that the research question guides the approach to be taken in the study rather the centrality of methods (Tashakkori & Teddlie, 1998). Accordingly, the research design and the methods applied in the study are guided by the research questions of this thesis. Hence, the central research question of the thesis is, “In what ways, if any, do OSC, opportunity-motivation-ability and knowledge creation explain the social innovativeness of Australian social enterprises?” This
The overarching research question is expanded into two sub-research questions: (1) *To what extent and how are Australian social enterprises socially innovative?* and (2) *In what ways do opportunity-motivation-ability and knowledge creation mediate the social innovativeness of Australian social enterprises?*

<table>
<thead>
<tr>
<th>Paradigm</th>
<th>Ontology</th>
<th>Epistemology</th>
<th>Methodology</th>
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<tbody>
<tr>
<td>Post-positivism</td>
<td>Singular reality – objects have an existence independent of the knower (Cohen et al. 2013, p. 27)</td>
<td>The phenomena being investigated, and the researcher are two independent entities and the researcher objectively collects data creating a distance and an impartiality (Creswell &amp; Clark 2011)</td>
<td>Deductive approach where the researcher tests a priori theory (Creswell &amp; Clark 2011)</td>
</tr>
<tr>
<td>Constructivism</td>
<td>Multiple reality – reality is subjective and differs from person to person (Guba &amp; Lincoln 1994, p. 10)</td>
<td>Knowledge and meaningful reality are constructed in and out of the interaction between humans and their world and are developed and transmitted in a social context (Crotty 1998, p. 42). Therefore, the social world can only be understood from the standpoint of individuals who are participating in it (Cohen et al. 2013, p. 15)</td>
<td>Inductive approach where the researcher starts with participants’ views and builds up to patterns, theories and generalisations (Creswell &amp; Clark 2011)</td>
</tr>
<tr>
<td>Pragmatism</td>
<td>Singular and multiple realities (Creswell &amp; Clark 2011)</td>
<td>Practicality is adapted, and researchers collect data by what works to address research questions (Creswell &amp; Clark 2011)</td>
<td>Combination of induction (discovery of patterns), deduction (testing of theories and hypothesis) and abduction (uncovering and relying on the best set of explanations for understanding one’s results) (de Waal in Johnson &amp; Onwuegbuzie 2004)</td>
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Source: Researcher

The first sub-research question calls for both quantitative and qualitative approach while the second question is predominantly quantitative in nature. This calls for a mixed methods approach. When the research questions are with interconnected qualitative and quantitative components or aspects (e.g., questions including “what and how” or “what and why”) the
study takes a mixed method approach (Tashakkori & Creswell, 2007, p. 207). As such, the ontological focal point of the thesis is the existence of both single and multiple realities (Creswell & Clark, 2011). Social entrepreneurship and social innovation are contextual and path dependent (Klein, 2013) while innovativeness is culture bound and contextual (Dobni, 2008). It is acknowledged that the social world in which social innovation processes are embedded exists external to the researcher and hence, can be measured through scientific observations (Gray, 2013). The social enterprise culture and the planning process act largely independent of the observer and are therefore accessible for scientific analysis as a natural occurrence (Kumar & Ormiston, 2012).

Referring to the epistemological standpoint of the thesis, it is believed that the methods of collecting data need to be selected by determining “what works” for the devised research questions (Creswell & Clark, 2011, p. 42). Therefore, the first sub-research question was addressed firstly by a quantitative approach and secondly triangulated by a qualitative document analysis. Hypotheses testing through structural equation modelling was performed to address the second sub-research question. Hence, this thesis employs a mixed method approach where quantitative methods play a prominent role while qualitative methods provide illustrative examples to explain innovativeness in social enterprises. This makes the examination of the reality of the social innovativeness phenomena objective, simple and fixed (Sarantakos, 2005). The objective examination through a distanced and impartial approach (Creswell & Clark, 2011) is important as the thesis is essentially examining a priori theory. Further, this ensures a rigorous approach to map the complexity of the social innovativeness of social enterprises, and convey multiple perspectives of these social enterprises in their cultural orientation towards innovation (Creswell & Clark, 2011).
5.3 RESEARCH DESIGN

The mixed method approach of this thesis comprises qualitative methods and quantitative techniques. The qualitative approach is built on a document analysis to employ qualitative content analysis. The predominant quantitative approach was based on a cross-sectional survey design (Malhotra & Grover, 1998) with a deductive approach (Judd et al., 1991). Among the two types of survey research designs, explanatory survey design is arguably the most important (Malhotra & Grover, 1998), and devoted to finding causal relationships among variables. Survey research is widely regarded as inherently quantitative, employing objective measurements and statistical analysis of numerical data to generalise findings (Babbie in Malhotra & Grover, 1998). Both approaches were integrated as a way of triangulating (Jick, 1979) to validate the findings for the research questions.

The theory testing approach necessitated by the central research question was executed in the six-stage approach proposed by de Vaus (1995, pp. 18-20). An overview of its application in this thesis is elucidated here, with a detailed account of each phase of the design.

**Phase 1 – Specifying the theory to be tested:** A rigorous and an extensive systematic literature review (Pittaway et al., 2014) was conducted on the concepts of social capital, innovation, innovativeness, social innovation, knowledge creation and social enterprise and their theoretical linkages, following the method prescribed for conducting a systematic literature review. Accordingly, a literature search was performed with Boolean operations (e.g. social innovation* AND social capital*) executed in the Scopus database. The search was limited to journal articles, reviews, conference papers, book chapters and books published in English. The references were exported to an EndNote file and organised into groups depending on the search term. Duplicated references were checked and removed. Abstracts were read for relevance and irrelevant references were removed from the database. Literature was read in
detail, searching for definitions, constructs, measurements, methods of testing and findings of the related concepts. These were tabulated in Excel spreadsheets separately. New references were added through reverse and pyramid searches (Doherty et al., 2014) and routine updates in the Scopus database.

**Phase 2 – Deriving a set of conceptual propositions:** The systematic literature review conducted in Phase 1 enabled and informed the: (1) development of the conceptual framework explaining the link between the concepts of OSC, knowledge creation and social innovativeness; (2) identification of constructs for these concepts; and (3) identification of conceptual and methodological flaws in the literature. For instance, the concept of OSC had been conceptualised as unidimensional, sometimes without a proper definition. Newton (1997) argues that failure to identify the dimensions of this multidimensional concept of social capital will muddle the empirical question. This is because the empirical operation of these dimensions can only be traced by such a process and absence will limit our understanding of the concept.

**Phase 3 – Restating of conceptual propositions as testable propositions:** The constructs determined in Phase 2 were specified with their measurements/indicators to establish the testable hypotheses. As a result, nine testable hypotheses were established. The systematic review conducted in Phase 1 further guided this operationalisation process (de Vaus, 1995; Neuman, 1994) in a way that informs the data to be collected in the next phase. These operational definitions specified how to measure a variable in a concrete and specific manner, assuring study replicability (Judd et al., 1991). Conceptual, operational and empirical levels (Neuman, 1994) were considered in operationalising the variables. This process ensures the comprehensibility and empirical defensibility required for testing theory related to a particular phenomenon, which needs to be consistent with existing theory by providing compelling explanations and interpretations about the world around us (Judd et al., 1991, pp. 23-24).
The dearth of literature on the OSC and social innovativeness relationship encouraged the search for alternative approaches of operationalising these concepts. Following the concept travelling approach (George & Marino, 2011a), constructs, relationships and indicators were derived from mainstream innovation literature (Morris et al., 2011). As identified in chapters 2 and 3, social entrepreneurship and innovation share common features with technological or commercial entrepreneurship and innovation. As such, measures of social entrepreneurship and innovation can start from commercial entrepreneurship and innovation. Therefore, a theory of social innovation can’t afford to ignore current theoretical approaches to commercial entrepreneurship and innovation. This is because the phenomena are linked and so too must be the theories (Judd et al., 1991, p. 24). Section 5.4.5 discusses the operationalisation of the constructs in detail.

**Phase 4 – Collecting relevant data:** Based on the measurements recognised during Phase 4, a questionnaire was designed following de Vaus (1995) with existing scales carrying multi-item measures. The questionnaire underwent a pre-test and a pilot test (de Vaus, 1995; Malhotra & Grover, 1998) before the main data collection, ensuring the validity and reliability of the study (see Section 5.4.2).

**Phase 5 – Analysing data:** The tests conducted at the data preparation and factor examination stages prior to main data collection were performed (see Section 5.4.3). The main data analysis was performed by employing path analysis of structural equation modelling. Nested model comparisons were conducted to assess the fitness of the testing models and ensure testing rigour. A series of linear regression tests were conducted to warrant the robustness in hypotheses testing. Qualitative content analysis was conducted to illustrate the social innovativeness of social enterprises to validate the findings for the first sub-research question (see Section 5.4.4).
Phase 6 – Assessing the theory: The findings of Phase 5 were compared with the relevant theories by re-visiting the literature and conclusions were made accordingly. Suggestions and recommendations for academics, practitioners and policy makers on future research were stipulated.

5.4 METHODS

5.4.1 Study Site, Population and Sample

The population comprises social enterprises across Australia. In the absence of a legally defined sector, the generally adopted definition provided by Social Traders Australia\textsuperscript{10} was used in this study. Accordingly, a social enterprise is defined as an enterprise that (1) has a defined primary social purpose (this includes environmental or other public benefit); (2) is able to provide evidence of its achievement; (3) derives a substantial portion of its income from trade; and (4) reinvests 50\% or more of any annual profits towards achieving its social purpose (Social Traders, 2016b).

The Australian social enterprise sector is rapidly growing and estimated to contribute to gross domestic production by 2–3\% (Victoria State Government, 2017). The diversity of social enterprises in this emerging sector makes the study context a valuable setting for the examination of the OSC and social innovativeness relationship. The Social Enterprise Finder registry\textsuperscript{11} developed by Social Traders Australia listed Australian social enterprises reflecting 10 areas of social enterprise specialty in terms of social purpose: addressing an environmental issue; advancing cultural awareness; assisting people with a disability; generating economic development; generating profit for other charities; meeting the needs of members; providing needed goods or services; providing targeted employment opportunities; providing targeted training opportunities; and being a vehicle for community participation (Social Traders,
2016b). A majority of Australian social enterprises are small and medium scale, with fewer than 200 employees (Victoria State Government, 2017). In the absence of a specific social enterprise registry in Australia, the social enterprises registered in the Social Enterprise Finder directory of Social Traders (2016b) was treated as the sampling frame for this thesis study. After adjusting for repeated listings (e.g. state-wide branches\textsuperscript{12}), profiles with missing information and inactive social enterprises, a list of 576 social enterprises covering all states across Australia was generated from this directory, which made the population of the study.

5.4.2 Data Collection

Research Ethics

Conducting ethically sound research is a primary principle of scientific inquiry. The procedures of this thesis study have been approved by RMIT’s Business College Human Ethics Advisory Network (BCHEAN) under approval number 20133 (see Appendix A). Therefore, this thesis abides by the “The National Statement on Ethical Conduct in Human Research” (2007) – Updated May 2015, of Australia. This statement outlines the national standards for use by any individual, institution or organisation conducting human research.

Data collection for this thesis comprises an anonymous online survey plus a follow-up postal mail. To ensure anonymity, the initial email request was sent to the CEO / president / general manager of the social enterprise and subsequently, he/she forwarded the request to the respective managerial level employee of the organisation. Given the anonymity of the study, participant consent was not needed to be obtained separately. However, participants were provided with adequate information pertaining to the study. The prescribed participant information sheet (see Appendix B) was sent to respondents (i.e. social enterprise managerial level employees) along with the survey, to provide them with the necessary information before they took part in the survey. The participant information sheet covered aspects such as (1) the
team conducting the study; (2) the purpose of the study; (3) reason for approaching the person; (4) type of information collected; (5) what the person is supposed to do; (6) possible risks/disadvantages; (7) benefits of participation; (8) confidentiality of the information provided; (9) rights of participants; and (10) complaining procedures. The participant information sheet was attached as a PDF file to an email, which contained the link to the survey. During the postal mail survey, a printed copy of the information sheet was enclosed in the survey pack.

The online survey was password protected and the returned postal surveys were stored in a confidential manner following RMIT research guidelines for storing data. Computerised data sheets are accessible only to the members of the research team and password protected. Data entries have been given a case number for the social enterprise and composite averages were reported in the thesis and publications. Only publicly available information has been disclosed with names during the qualitative content analysis (see Chapter 7). These measures assure the confidentiality of the information provided by participants.

Moreover, fair participation of the respondents was assured by opening the survey to any social enterprise managerial level employee regardless of gender, age, level of education or nationality. Data which could reveal the identity of the respondent was not collected.

**Survey Instrument Development**

An online survey was conducted through the Qualtrics survey tool to collect quantitative data for the study. The survey instrument, a structured questionnaire (see Appendix C), was developed, pre-tested, and pilot tested following de Vaus (1995) before embarking on the main data collection. The following section explains the pre-test and pilot test of the study.
I) Pre-test

To ensure the validity of the measures of constructs and as a whole of the data collection instrument, the pre-test was performed with the participation of social enterprise managers and supervisory team of the thesis. A draft questionnaire was developed based on existing scales, which was expected to be updated and reworded in such a way that suited the social enterprise context to increase reliability (de Vaus, 1995) and contribute a cumulative tradition of research (de Vaus, 1995; Malhotra & Grover, 1998). This process ensures measurement and construct validity (Lyon, Lumpkin & Dess, 2000) and reliability (Judd et al., 1991; Malhotra & Grover, 1998) of measurement items. All the items except for background measures were anchored to a 7-point Likert scale: 1 for “strongly disagree” and 7 for “strongly agree”.

A focused group with an ideal mini group of four to six members is recommended by Krueger and Casey (2014) as it is large enough to develop discussion and also small enough to maintain control over the agenda. Hence, the three academic supervisors were selected, considering their experience and subject-specific knowledge gained in research and teaching in entrepreneurship and innovation management disciplines. Three social enterprise managers were selected following their acceptance of an email invitation to assist in assessing the questionnaire. Email invitations were sent to eight social enterprise managers covering the classification of social enterprise purpose by Social Traders (2016b). Two managers were not willing to participate in the pre-test while six managers expressed their consent to assist in the evaluation. Out of those six, three managers could not offer a time for a face-to-face discussion and hence, the pre-test was limited to the remaining three social enterprise managers (Case 3, 4 and 7). The Case 3 manager was the general manager of the respective organisation, with 25 years of experience in creative directing, brand development, events and physical sites locally and internationally. The Case 4 manager was an operations manager with nearly 10 years of experience in community development and art projects. The Case 7 manager was the centre manager and
also one of the founding members of the respective organisation and had nearly 15 years of experience in the community development sector.

Personal visits were made to the respective social enterprises to have face-to-face discussions with the managers. A printed copy of the draft questionnaire was given to the manager and they were asked to comment on (1) any issues in filling out the survey; (2) inconsistencies in terminology; and (3) the relevancy and usability of the questionnaire items. Further, they were given the latitude to make their own suggestions for the questionnaire items. Every discussion was limited to 90 minutes. To meet the objective of the pre-test successfully, an adapted checklist (see Appendix D) from Church and Waclawski (2007, pp. 85-86) was used by the researcher, which prompted a feedback request if the manager missed commenting on an evaluation criterion.

The outcomes of the pre-test were summarised under six categories: (1) exclusions of questionnaire items requested (AM1); (2) new inclusions suggested (AM2); (3) terminological differences and problems (AM3); (4) word/phrase confusions (AM4); (5) formatting issues of the questionnaire (AM5); and (6) other matters (AM6). The methods taken to address the needed modifications are summarised in Table 7. These were discussed with the three academic supervisors, and the questionnaire was updated with measures identified and designed in the Qualtrics survey tool for running pre-views. The questionnaire was then emailed to academic supervisors for trials and their feedback. They commented on the completeness of the criteria (questionnaire items), clarity, suitability of scoring, grammatical errors, timing and the variation among questionnaire items. An updated survey was sent back to them for another trial. After a thorough verification of all the items, pilot survey was launched.
II) Pilot Study

To ensure internal validity, internal consistency and reliability of measurement items (de Vaus, 1995; Judd et al., 1991), a pilot study was conducted by sending the pre-tested questionnaire to 100 social enterprise managers through the Qualtrics online survey tool. In most cases, CEOs were either busy or on annual leave and telephone operators provided an organisational email addresses to contact managerial level employees. An email with the Qualtrics survey link was sent to the identified contacts initially.

After two weeks, a reminder notification was sent (de Vaus, 1995). Nine organisations were withdrawn from the survey at the first instance of contacting. Emails were sent to the other 91 social enterprises with the link to Qualtrics survey but four emails bounced due to an unknown reason. Eighty-seven emails reached the CEO / president / chairman / chief manager of the social enterprises. Therefore, 87 reminder emails were sent after two weeks’ time.

The pilot study achieved 18 fully completed responses and 12 partially completed responses giving rise to a response rate of 19%. A preliminary analysis was performed based on these 18 fully completed responses. Based on a cost-benefit approach, Johanson and Brooks (2009, p. 399) proposed that this number is suitable for a pilot survey of a scale development. A response number between 10 and 30 is considered appropriate for an internet survey (Hill, 1998). However, the nature of the sample has the largest impact on accuracy, rather than size (Johanson & Brooks, 2009, p. 2). This field-based validation enhances the content validity of items and clarity by reducing wording problems. These pilot test data were collected to purify the measurement scale. Internal consistency of the items were tested through the assessment of Cronbach’s Alpha (Nunnally in Malhotra & Grover, 1998). Individual items of the composite scales with low correlations (i.e. $r < 0.4$) were dropped from the scale. Table 8 summarises the reliability levels of the measurement scales used.
Organisational Social Capital and Social Innovativeness

### Table 7: Outcomes of the Pre-test

<table>
<thead>
<tr>
<th>Amendment Category</th>
<th>Questionnaire Item &amp; Requested Amendment</th>
<th>Measures Taken to Address the Issues (if any)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Exclusions requested by social enterprise managers (AM1)</td>
<td>3.1.8 Knowledge resource exchange (KRE) conditions</td>
<td>No changes were made as the scale is from Collins and Smith (2006) with a reliability level of 0.91. They are obviously different and thus, did not make any changes</td>
</tr>
<tr>
<td>New inclusions requested (AM2)</td>
<td>1.2 To include “word of mouth marketing” as an option</td>
<td>No changes were made as this is out of focus of the thesis</td>
</tr>
<tr>
<td></td>
<td>3.1 To include a question on external knowledge exchange with other social enterprise</td>
<td>No changes were made as what is suggested is out of focus of the thesis</td>
</tr>
<tr>
<td></td>
<td>4.1 To include a question about social impact measurements</td>
<td>No changes were made as this is out of focus of the thesis</td>
</tr>
<tr>
<td></td>
<td>4.5 To include a question to measure collaboration</td>
<td>No changes were made as the suggestion is out of focus of the thesis</td>
</tr>
<tr>
<td></td>
<td>To add two columns to separate new to the market and new to the organisation innovations</td>
<td>Done – Separated the responses with two columns</td>
</tr>
<tr>
<td></td>
<td>6.6 To include “and/or service sector”</td>
<td>Done – The overall structure of the question was changed to make it simple to understand</td>
</tr>
<tr>
<td></td>
<td>7.1 To include an option for “government funding”</td>
<td>Done – Included an option</td>
</tr>
<tr>
<td></td>
<td>7.2 Adding an option for “100%”</td>
<td>Done – Included an option</td>
</tr>
<tr>
<td>Terminological differences (AM3)</td>
<td>1.1.3 Confusion with the term “functions”</td>
<td>Replaced with “departments”</td>
</tr>
<tr>
<td></td>
<td>2.1 Confusion with the word “member” – internal/external beneficiaries</td>
<td>Replaced with “colleagues/employees”</td>
</tr>
<tr>
<td>Word/Phrase confusions (AM4)</td>
<td>Meaning of “social situations”</td>
<td>No changes were made as it is the key word in the statement</td>
</tr>
<tr>
<td></td>
<td>Measuring ”external &amp; internal”</td>
<td>No changes were made as it is not related</td>
</tr>
<tr>
<td></td>
<td>No specificity of the situation</td>
<td>Rephrased with “difficult situation”</td>
</tr>
<tr>
<td></td>
<td>Over-representation of the context</td>
<td>Rephrased with “a majority of …”</td>
</tr>
<tr>
<td></td>
<td>2.5 Inappropriateness of “we are proud”</td>
<td>Rephrased with “sense of pride”</td>
</tr>
<tr>
<td></td>
<td>2.7 Mixed questions with “I” and “we”</td>
<td>Changed question order formatting by organising all “I” questions in one section and “we” questions in another section to avoid confusion</td>
</tr>
<tr>
<td></td>
<td>3.1.4 Similarity with 3.1.8</td>
<td>No changes were made as 3.1.4 measures capability and 3.1.8 measures opportunities. This difference is obvious in the question</td>
</tr>
</tbody>
</table>
### Organisational Social Capital and Social Innovativeness

<table>
<thead>
<tr>
<th>Amendment Category</th>
<th>Questionnaire Item &amp; Requested Amendment</th>
<th>Measures Taken to Address the Issues (if any)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>3.1.5 Confusion led by negativity</td>
<td>Rephrased as a positive sentence as the “reverse coded” statement caused respondents confusion</td>
</tr>
<tr>
<td></td>
<td>3.2.5/3.2.6 Confusion with “re-combine”</td>
<td>Replaced with combine</td>
</tr>
<tr>
<td></td>
<td>4.1.2/4.1.3 Misunderstood as similar items</td>
<td>No changes were made as the difference is obvious and a validated scale from Hurley and Hult (1998)</td>
</tr>
<tr>
<td></td>
<td>4.5 Difficult question</td>
<td>Replaced with simplified statements from Stam and Elfring (2008)</td>
</tr>
<tr>
<td></td>
<td>4.6. Difficult word “proclivity”</td>
<td>Replaced with “tendency”</td>
</tr>
<tr>
<td></td>
<td>6.4 Difficult word “auspice”</td>
<td>Rephrased with an explanation</td>
</tr>
<tr>
<td></td>
<td>6.3 To use “volunteer” and “non-volunteer”</td>
<td>Done</td>
</tr>
<tr>
<td><strong>Formatting issues (AM5)</strong></td>
<td>3.1.1 Lengthy question</td>
<td>Shortened the sentences by taking out the common phrase without harming the meaning</td>
</tr>
<tr>
<td></td>
<td>4.2 Absence of instructions</td>
<td>Instructions were added</td>
</tr>
<tr>
<td></td>
<td>6.5–6.7 Missing options</td>
<td>Revise the structure of all the related questions to make them simple and also accommodate the variations</td>
</tr>
<tr>
<td><strong>Other issues (AM6)</strong></td>
<td>Lack of specificity to the organisation when a subsidiary of a large organisation is surveyed</td>
<td>A specific statement was added to display to those who are from a subsidiary to specify the focusing organisation</td>
</tr>
<tr>
<td></td>
<td>3.2 Differences in naming managerial positions</td>
<td>A clarification was obtained from each social enterprise when the initial phone call was made to the organisation before sending the email</td>
</tr>
</tbody>
</table>

**Source:** Researcher
Reliability analysis confirmed the higher reliability level of the scales given that Cronbach’s Alpha is above the general threshold of 0.7 (Hair, William, Barry & Rolph, 2010). For the shared vision dimension, the reliability level is just below 0.7 and this has been considered acceptable in the literature (Moss, Prosser, Costello, Simpson, Patel, Rowe, Turner & Hatton, 1998) as it is close to 0.7 threshold.

Table 8: Reliability Analysis – Pilot Study Questionnaire

<table>
<thead>
<tr>
<th>Variables</th>
<th>Dimensions</th>
<th>Number of Items</th>
<th>Cronbach’s Alpha</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Total</td>
<td>Deleted</td>
</tr>
<tr>
<td>Social innovativeness</td>
<td>–</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>Knowledge creation</td>
<td>–</td>
<td>9</td>
<td>–</td>
</tr>
<tr>
<td>Motivation to knowledge exchange</td>
<td>–</td>
<td>3</td>
<td>–</td>
</tr>
<tr>
<td>Abilities to knowledge exchange and combine</td>
<td>–</td>
<td>2</td>
<td>–</td>
</tr>
<tr>
<td>Opportunities to knowledge exchange</td>
<td>–</td>
<td>2</td>
<td>–</td>
</tr>
<tr>
<td>Organisational social capital</td>
<td>Tie strength</td>
<td>4</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Trust</td>
<td>5</td>
<td>–</td>
</tr>
<tr>
<td></td>
<td>Shared vision</td>
<td>2</td>
<td>–</td>
</tr>
</tbody>
</table>

Source: SPSS output – Pilot Test 2017

Main Survey

I) Survey Instrument Modification and Distribution

Although the pilot study’s response rate is consistent with previous research conducted in the field, to prevent difficulties in statistical analysis, measures were taken to enhance the survey responses. Accordingly, the content and the approach to the survey were modified mainly following the Tailored Design Method of Dillman (2000). These measures are of two types depending on the stage of the application: survey development and survey distribution. A few measures were taken to improve the survey development: (1) changing the presentation of the web questionnaire from screen by screen to scrolling display (Couper, Traugott & Lamias,
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2001; Dillman, 2000; Fan & Yan, 2010); (2) making the questionnaire wording simple without harming the original scales (Dillman, 2000); (3) changing the order of the questions to arouse the respondents’ interest; and (4) reducing the biased answers without altering the original scope of the questionnaire items.

Responses were obtained from managerial level employees of the social enterprises (de Vaus, 1995). Specifically, they are managerial level employees acting as human resources managers, marketing managers or operational managers. The use of a single respondent is considered as an appropriate and a necessary means to operationalise key constructs of a study and ensure reliability and validity (Lyon et al., 2000). An email with the Qualtrics survey link was thus sent to 476 social enterprise managers.

To make the survey distribution efficient and effective, invitations were personalised where possible. The availability of some managers’ email addresses enabled the researcher to send emails directly to them. Nearly 15% of emails were personalised and the rest were sent to the social enterprises’ general email addresses. A mixed method was employed in delivering the survey, following Dillman (2000), in an effort to obtain a higher response rate. The initial distribution of the survey started with sending the Qualtrics survey link in an email followed by a reminder email after two weeks. Another two weeks after the second survey email reminder, a postal questionnaire was sent to the targeted social enterprise with a survey pack. A cover letter, reply paid envelop, questionnaire and participant information sheet were included in the survey pack.

The online survey was anonymous and there was a possibility of developing multiple identities due to lower self-regulation (Joinson, 1998). The possibility of respondents enrolling multiple times could compromise the data integrity leading to severe measurement error. A few measures were taken to address data integrity by (1) adjusting the default settings in Qualtrics.
survey tool to limit access to the sent survey questionnaire only once; (2) checking IP addresses to identify repeat attempts once the online surveys were returned; and (3) being cautious about the length of the questionnaire, as lengthy questionnaires can cause inattentiveness and abandonment; (4) designing the survey questionnaire to break the monotony by formatting the questions’ appearance; (5) avoiding questionnaire items which need extensive recalling; (6) making the survey questionnaire user-friendly to suit social enterprise context and language; (7) eliminating invalid responses; (8) providing well-defined instructions to complete the questionnaire; and (9) addressing the survey invitations to managerial employees only through CEOs / presidents or general managers of the respective social enterprise.

II) Response Pattern
A total of 94 usable surveys were returned from the main survey; 37 were postal surveys while 57 were online responses. There were 32 mails returned from the postal survey due to incorrect addressing, even though address verification had been done effectively. Seven emails were received from social enterprises stating the inability of participating in the survey. Due to the low response rate, pilot study data was included in the main survey data. As a result, 112 usable survey responses were available for analysis. The pilot study data did not contaminate the main survey data due to a few reasons: (1) absence of difference between the pilot study questionnaire and the main survey questionnaire except for deleting two items from the pilot due to low reliability (see Table 8); (2) absence of targeting the pilot study respondents in the main survey; and (3) absence of difference in unit of analysis and respondent category between pilot study and main survey. Responses to the pilot study and the main survey collectively made the response rate 19%, which is highly consistent with other studies conducted in the Australian social enterprise sector (Table 9).
III) Non-response Bias Analysis

The non-response bias was assessed (Armstrong & Overton, 1977) in terms of organisational age. This is because firm age has found to be associated with innovativeness (Gebreeyesus, 2009; Rubera & Kirca, 2012) and non-significant (Bell, 2005; Rhee et al., 2010). Further, social innovation and social entrepreneurship are contextual and path dependent (Klein, 2013) and innovation orientation/innovativeness is contextual and culture bound (Dobni, 2008). Firm age is often included in social capital research as it may be a proxy for resource accumulation (Wu, 2008).

<table>
<thead>
<tr>
<th>Study</th>
<th>Response Rate</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Barraket, Mason &amp; Blain (2016)</td>
<td>100/466</td>
<td>= 21%</td>
</tr>
<tr>
<td>Innovation Index Australia NFP sector (2015)</td>
<td>744/3000 approx:</td>
<td>= 25%</td>
</tr>
<tr>
<td>Barraket &amp; Furneaux (2012)</td>
<td>539/4000</td>
<td>= 13%</td>
</tr>
<tr>
<td>Barraket, Collyer, O’Connor &amp; Anderson (2010)</td>
<td>365/4000</td>
<td>= 9%</td>
</tr>
<tr>
<td>Average response rate</td>
<td></td>
<td>= 7%</td>
</tr>
<tr>
<td>Main study (2017)</td>
<td>112/576</td>
<td>= 19%</td>
</tr>
</tbody>
</table>

Source: Researcher

Given the anonymity of the survey, firms returned surveys due to incorrect addresses and those firms which withdrew from participation were considered as non-responding firms. Out of these non-respondent firms, firm age could be traced from their websites only in 27 cases. An independent sample t-test was employed to analyse whether there was a difference in firm age between responding firms and non-responding firms and the results are summarised in tables 10 and 11.
Table 10: Mean Firm Age of Non-respondent and Respondent Firms

<table>
<thead>
<tr>
<th>Firm Type</th>
<th>N</th>
<th>Mean</th>
<th>Std Deviation</th>
<th>Std Error Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Non-respondent firm</td>
<td>27</td>
<td>27.67</td>
<td>34.79</td>
<td>6.69</td>
</tr>
<tr>
<td>Respondent firm</td>
<td>112</td>
<td>34.58</td>
<td>35.87</td>
<td>3.39</td>
</tr>
</tbody>
</table>

Source: SPSS output – Field Survey 2017

Table 11: Independent Sample t-test

<table>
<thead>
<tr>
<th>Levene’s Test for Equality of Variances</th>
<th>t-test for Equality of Means</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>F</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td>Equal variances assumed</td>
<td>0.14</td>
</tr>
<tr>
<td>Equal variances not assumed</td>
<td></td>
</tr>
</tbody>
</table>

Source: SPSS output – Field Survey 2017

Assuming variance is equally distributed, the insignificant \( p > 0.05 \) independent sample t-test confirmed the absence of response bias.

5.4.3 Data Analysis: Statistical Methods

Statistical data analysis was performed in three main integrated steps: (1) data preparation; (2) item and factor examination; and (3) descriptive statistics and hypotheses testing (Figure 18). The following section explains each phase in detail.

Phase I: Data Preparation

I) Missing Value Analysis

Returned surveys were scrutinised for spotting missing data. These missing values were examined to determine whether missing data displayed a specific pattern. Little’s missing completely at random (MCAR) test was employed for this purpose (Hair et al., 2010). The
results of the test are summarised in Table 12. The statistically non-significant Little’s MCAR test confirmed that the data were missing completely at random.

Figure 18: Phases of Data Analysis

Source: Researcher

The highest proportion of missing per response was 3.6% and all others were below 2.7%. Little’s MCAR test has been widely applied in entrepreneurship and innovation studies (e.g. Khan, Breitenecker, Gustafsson & Schwarz, 2015; Rangus & Slavec, 2017; Thurik, Khedhaouria, Torrès & Verheul, 2016) for missing value analysis. Given that missing data are not MCAR, a multiple imputation method was employed to address the missing values in the data (Graham & Hofer, 2000). This is considered to be one of the most promising approaches to address missing values in a dataset (Roth, Switzer III & Switzer, 1999).

II) Common Method Bias Assessment

Due to the inherent nature of the study context and study variables, the research was mainly based on self-reported data, which could result in the inflation of correlations between variables
measured (Spector, 2006). This issue stemmed from the nature of measurement method adopted in the study (Podsakoff, MacKenzie, Lee & Podsakoff, 2003).

Table 12: Missing Value Analysis – Little’s MCAR Test

<table>
<thead>
<tr>
<th>Questionnaire Item</th>
<th>% of Missing</th>
<th>EMS</th>
<th>Questionnaire Item</th>
<th>% of Missing</th>
<th>EMS</th>
<th>Questionnaire Item</th>
<th>% of Missing</th>
<th>EMS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Economic value</td>
<td>0</td>
<td>28.8</td>
<td>Opportunities 2</td>
<td>0.0</td>
<td>5.74</td>
<td>Relational social capital 4</td>
<td>0.9</td>
<td>5.79</td>
</tr>
<tr>
<td>Social value</td>
<td>0</td>
<td>56.3</td>
<td>Abilities 1</td>
<td>0.0</td>
<td>5.33</td>
<td>Relational social capital 5</td>
<td>0.0</td>
<td>6.09</td>
</tr>
<tr>
<td>Environmental value</td>
<td>0</td>
<td>13.98</td>
<td>Opportunities 3</td>
<td>0.0</td>
<td>5.61</td>
<td>Num. of permanent employees</td>
<td>0.9</td>
<td>106.95</td>
</tr>
<tr>
<td>Innovativeness 1</td>
<td>0</td>
<td>6.25</td>
<td>Abilities 2</td>
<td>0.0</td>
<td>5.65</td>
<td>Num. of volunteers</td>
<td>0.0</td>
<td>56.2</td>
</tr>
<tr>
<td>Innovativeness 2</td>
<td>0</td>
<td>5.79</td>
<td>Motivation 3</td>
<td>0.0</td>
<td>5.78</td>
<td>Work experience</td>
<td>1.8</td>
<td>7.47</td>
</tr>
<tr>
<td>Innovativeness 3</td>
<td>1.8</td>
<td>5.97</td>
<td>Knowledge creation 1</td>
<td>0.0</td>
<td>4.72</td>
<td>Relative innovativeness 1</td>
<td>0.0</td>
<td>4.76</td>
</tr>
<tr>
<td>Innovativeness 4</td>
<td>0.9</td>
<td>6.07</td>
<td>Knowledge creation 2</td>
<td>0.0</td>
<td>5.28</td>
<td>Relative innovativeness 2</td>
<td>0.0</td>
<td>4.68</td>
</tr>
<tr>
<td>Structural social capital 1</td>
<td>0.9</td>
<td>4.61</td>
<td>Knowledge creation 3</td>
<td>0.0</td>
<td>5.61</td>
<td>Relative innovativeness 3</td>
<td>0.0</td>
<td>4.26</td>
</tr>
<tr>
<td>Structural social capital 2</td>
<td>0</td>
<td>4.81</td>
<td>Knowledge creation 4</td>
<td>0.9</td>
<td>5.55</td>
<td>Innovation introduction</td>
<td>0.0</td>
<td>4.57</td>
</tr>
<tr>
<td>Structural social capital 3</td>
<td>0.9</td>
<td>5.21</td>
<td>Knowledge creation 5</td>
<td>0.9</td>
<td>5.78</td>
<td>Organisational purpose</td>
<td>1.8</td>
<td></td>
</tr>
<tr>
<td>Cognitive social capital 4</td>
<td>0</td>
<td>6.02</td>
<td>Knowledge creation 6</td>
<td>0.0</td>
<td>5.76</td>
<td>Organisation type</td>
<td>3.6</td>
<td></td>
</tr>
<tr>
<td>Cognitive social capital 1</td>
<td>0</td>
<td>5.67</td>
<td>Knowledge creation 7</td>
<td>0.0</td>
<td>5.32</td>
<td>Organisational structure</td>
<td>1.8</td>
<td></td>
</tr>
<tr>
<td>Cognitive social capital 2</td>
<td>0</td>
<td>5.71</td>
<td>Knowledge creation 8</td>
<td>0.9</td>
<td>5.72</td>
<td>Functional structure</td>
<td>2.7</td>
<td></td>
</tr>
<tr>
<td>Cognitive social capital 3</td>
<td>0</td>
<td>5.4</td>
<td>Knowledge creation 9</td>
<td>0.9</td>
<td>5.7</td>
<td>Legal status</td>
<td>1.8</td>
<td></td>
</tr>
<tr>
<td>Motivation 1</td>
<td>0</td>
<td>5.89</td>
<td>Relational social capital 1</td>
<td>0.0</td>
<td>5.86</td>
<td>Gender</td>
<td>3.6</td>
<td></td>
</tr>
<tr>
<td>Motivation 2</td>
<td>0</td>
<td>5.94</td>
<td>Relational social capital 2</td>
<td>0.9</td>
<td>5.4</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Opportunities 1</td>
<td>0</td>
<td>5.32</td>
<td>Relational social capital 3</td>
<td>1.8</td>
<td>5.52</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Little’s MCAR Test: Chi-square = 486.495, df = 502, Sig. = .682

Source: SPSS output – Field Survey 2017

Therefore, following Podsakoff et al. (2003)’s recommendation, Harman’s single factor test was used to examine the potential common method variance. Table 12 summarises the factor
eigenvalues and the first factor itself explains 39%, suggesting that there is no possibility of common method bias in this dataset.

**Phase II: Items and Factors Examination**

I) Exploratory factor analysis

In order to check the construct validity (Nunnally, 1978) and discriminant validity, exploratory factor analysis (EFA) was used. According to Hayton, Allen and Scarpello (2004), having too few items and too many items can cause errors in estimations. Principle component analysis with varimax factor rotation technique (Tabachnick & Fidell, 2006) was employed to purify the factor loadings. The Kaiser-Meyer-Olkin measure of sampling adequacy test and Bartlett’s test of sphericity were performed to confirm the suitability of data for the factor analysis. The statistical outputs of EFA for each variable are discussed under construct operationalisation in Section 5.4.5.

II) Confirmatory factor analysis

Schumacker and Beyerlein (2000) regard confirmatory factor analysis (CFA) as a one of the best approaches to test a hypothesised factor structure. Since this study tests nine hypotheses and multiple mediation analysis was involved in, CFA was performed following the maximum likelihood estimation method as a way of assessing construct validity (Chiu et al., 2006). All the constructs with respective factor items were included in the main CFA to test for unidimensionality of the constructs. In addition to the main CFA, separate CFAs were performed for each construct as an additional approach to ensure the robustness in the process. Normed fit index (NFI), comparative fit index (CFI) and root mean square error of approximation (RMSEA) were examined and it was found that each theoretical construct model was sufficiently well fitted (Chiu et al., 2006).
Table 13: Harman’s Single Factor Test

<table>
<thead>
<tr>
<th>Component</th>
<th>Total Variance Explained</th>
<th>Initial Eigenvalues</th>
<th>Extraction Sums of Squared Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>11.40</td>
<td>39.32</td>
<td>39.32</td>
</tr>
<tr>
<td>2</td>
<td>2.40</td>
<td>8.29</td>
<td>47.60</td>
</tr>
<tr>
<td>3</td>
<td>1.78</td>
<td>6.13</td>
<td>53.73</td>
</tr>
<tr>
<td>4</td>
<td>1.75</td>
<td>6.03</td>
<td>59.76</td>
</tr>
<tr>
<td>5</td>
<td>1.70</td>
<td>5.87</td>
<td>65.62</td>
</tr>
<tr>
<td>6</td>
<td>1.51</td>
<td>5.21</td>
<td>70.83</td>
</tr>
<tr>
<td>7</td>
<td>1.01</td>
<td>3.49</td>
<td>74.32</td>
</tr>
<tr>
<td>8</td>
<td>0.96</td>
<td>3.31</td>
<td>77.62</td>
</tr>
<tr>
<td>9</td>
<td>0.81</td>
<td>2.79</td>
<td>80.41</td>
</tr>
<tr>
<td>10</td>
<td>0.62</td>
<td>2.15</td>
<td>82.56</td>
</tr>
<tr>
<td>11</td>
<td>0.55</td>
<td>1.90</td>
<td>84.47</td>
</tr>
<tr>
<td>12</td>
<td>0.54</td>
<td>1.88</td>
<td>86.34</td>
</tr>
<tr>
<td>13</td>
<td>0.52</td>
<td>1.80</td>
<td>88.14</td>
</tr>
<tr>
<td>14</td>
<td>0.45</td>
<td>1.56</td>
<td>89.70</td>
</tr>
<tr>
<td>15</td>
<td>0.35</td>
<td>1.21</td>
<td>90.91</td>
</tr>
<tr>
<td>16</td>
<td>0.34</td>
<td>1.18</td>
<td>92.09</td>
</tr>
<tr>
<td>17</td>
<td>0.32</td>
<td>1.11</td>
<td>93.20</td>
</tr>
<tr>
<td>18</td>
<td>0.27</td>
<td>0.96</td>
<td>94.16</td>
</tr>
<tr>
<td>19</td>
<td>0.27</td>
<td>0.92</td>
<td>95.08</td>
</tr>
<tr>
<td>20</td>
<td>0.22</td>
<td>0.76</td>
<td>95.84</td>
</tr>
<tr>
<td>21</td>
<td>0.21</td>
<td>0.73</td>
<td>96.57</td>
</tr>
<tr>
<td>22</td>
<td>0.19</td>
<td>0.64</td>
<td>97.21</td>
</tr>
<tr>
<td>23</td>
<td>0.17</td>
<td>0.58</td>
<td>97.79</td>
</tr>
<tr>
<td>24</td>
<td>0.14</td>
<td>0.49</td>
<td>98.28</td>
</tr>
<tr>
<td>25</td>
<td>0.13</td>
<td>0.44</td>
<td>98.72</td>
</tr>
<tr>
<td>26</td>
<td>0.11</td>
<td>0.37</td>
<td>99.09</td>
</tr>
<tr>
<td>27</td>
<td>0.10</td>
<td>0.33</td>
<td>99.41</td>
</tr>
<tr>
<td>28</td>
<td>0.09</td>
<td>0.32</td>
<td>99.74</td>
</tr>
<tr>
<td>29</td>
<td>0.08</td>
<td>0.27</td>
<td>100</td>
</tr>
</tbody>
</table>

Extraction method: Principal component analysis

Source: SPSS output – Field Survey 2017

These fit indices were compared against the threshold values presented in Table 15 (section 5.4.3). The results of the main CFA are discussed separately under construct operationalisation in Section 5.4.5. The additional CFAs performed for each construct are also presented under respective construct operationalisation section as additional notes.
**Phase III: Data Analysis Techniques**

Table 14 summarises the data analysis methods used in this study against the study objectives.

<table>
<thead>
<tr>
<th>Research Objectives</th>
<th>Data Analysis Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>To determine the degree of social innovativeness of Australian social enterprises</td>
<td>Descriptive statistics, graphical representations and qualitative content analysis</td>
</tr>
<tr>
<td>To examine the mediatory effect of opportunity-motivation-ability and knowledge creation on OSC and social innovativeness relationship</td>
<td>Regression analysis, and path analysis with nested model comparison</td>
</tr>
</tbody>
</table>

Source: Researcher

Accordingly, two main inferential techniques were applied in this thesis: linear regression analysis and path analysis of structural equation modelling (SEM). Taking a cautious approach, each hypothesis was tested initially by using linear regression to ensure robustness when dealing with a small sample size. Since the advanced analysis method of SEM is also sensitive to multivariate normality, Ordinary Least Square (OLS) assumptions related to linear regression were tested and prior to the analysis and a full description of the approach and the results are presented in Appendix E. The conceptual framework of the thesis coupled with the research question calls for testing hypotheses with multiple mediation effects (Hayes, 2009). Considering the complexity of the relationships proposed to estimate and the flexibility needed in such an estimation, SEM was applied to test the hypotheses through path analysis (Preacher & Hayes, 2008). Parameter estimation was performed by applying the maximum likelihood method.

In testing the theoretical framework, several nested models were fitted to the data, following Yli-Renko et al. (2001) and Seibert et al. (2001). Comparisons with reasonable alternative models have been recommended in the literature as a means of showing that a hypothesised model is the best representation of the data and are considered to be an important part of
assessing model fit (e.g. Anderson & Gerbing, 1988). Therefore, the “incremental approach to SEM” outlined by Cheng (2001, p. 652) was followed in testing this series of nested models. This nested model comparison was performed not only for the integrated model of the thesis but also for the sub-structural models built for each OSC dimension. In each nested model comparison, the first alternative model specified (control variables only) just the direct paths from the control variables to social innovativeness. This control variables only model was used as a baseline for assessing the incremental contribution of the additional paths in the theoretical model. The relationships tested in the control variables only model were based on the theoretical grounds clarified in Section 5.4.5. The fully mediated hypothesised models specified both the control variable paths and the set of paths hypothesised in the thesis for each sub-model and the integrated model. The fully mediated hypothesised model was compared with partially mediated models following Seibert et al. (2001). These partially mediated models assessed both the direct and indirect effects between the constructs. All models included the control variable paths.

Given the sample size of 112, as a cautious approach to data analysis, a series of individual linear regressions tests, and three individual path models based on the three OSC dimensions were performed in addition to the main integrated model testing. This process aims to ensure the robustness of the analysis. Given the multiple mediation involved in the models, indirect effects were identified and hypotheses were tested by running 1000 bias-corrected bootstrap samples at 95% significance level. This bootstrapping procedure is considered to be a non-parametric approach of using no assumption about the shape of the distribution of the variables or the sampling distribution of the statistic (Efron & Tibshirani, 1994), avoiding the power problem and other forms of non-normality in the sampling distribution (Shrout & Bolger, 2002). Since it is not based on large-sample theory, it can be applied to small samples with confidence (Preacher & Hayes, 2004).
Model fitness was assessed based on the following fit indices, with threshold values given in the literature. As it is suggested to have a variety of indices reported (Crowley & Fan, 1997), fit indices, minimum one from the three main categories of absolute fit indices, incremental fit indices and parsimony fit indices were included in the evaluation (Table 15).

### Table 15: Cut-off Criteria for Fit Indices

<table>
<thead>
<tr>
<th>Indices</th>
<th>Threshold Values</th>
<th>Remarks</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Absolute Fit Indices</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Chi-square test (CMIN)</td>
<td>Insignificant at 0.05 (Barrett, 2007)</td>
<td>Sensitive to sample size</td>
</tr>
<tr>
<td>Root mean square error of approximation (RMSEA)</td>
<td>Closer to 0.06 (Hu &amp; Bentler, 1999) &lt; 0.08 (MacCallum, Browne &amp; Sugawara, 1996)</td>
<td></td>
</tr>
<tr>
<td>Goodness of fit index (GFI)</td>
<td>&gt; 0.95 (Miles &amp; Shevlin, 2007)</td>
<td>When sample size is small</td>
</tr>
<tr>
<td>Standardised root mean square residual (SRMR)</td>
<td>&lt; 0.05 (Byrne, 2013)</td>
<td></td>
</tr>
<tr>
<td>Adjusted goodness of fit (AGFI)</td>
<td>&gt; 0.80 (Herzog, 2009)</td>
<td></td>
</tr>
<tr>
<td><strong>Incremental Fit Indices</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Normed fit index (NFI)</td>
<td>&gt; 0.95 (Hu &amp; Bentler, 1999)</td>
<td></td>
</tr>
<tr>
<td>Comparative fit index (CFI)</td>
<td>&gt; 0.95 (Hu &amp; Bentler, 1999)</td>
<td>Works well for small samples (Tabachnick &amp; Fidell, 2006)</td>
</tr>
<tr>
<td><strong>Parsimony Fit Indices</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Parsimony goodness of fit index (PGFI)</td>
<td>Within 0.05 (Mulaik, James, Van Alstine, Bennett, Lind &amp; Stilwell, 1989)</td>
<td>No thresholds given specifically</td>
</tr>
<tr>
<td>Parsimony normed fit index (PNFI)</td>
<td>Within 0.05 (Mulaik et al., 1989)</td>
<td>No thresholds given specifically</td>
</tr>
</tbody>
</table>

Source: Collated by researcher

Given that this thesis takes a mixed method approach, the following section clarifies the approach to qualitative data analysis. To support the first sub-research question, this thesis uses illustrative examples of social innovativeness in Australian social enterprises. Based on a
document analysis, a qualitative content analysis was conducted and the justification and approach to this method are explained below.

### 5.4.4 Data Analysis: Qualitative Methods

The first sub-research question assesses the extent of social innovativeness of social enterprises and this calls for a more qualitative approach to data analysis. Therefore, in addition to the quantitative assessment on the level of social innovativeness, data triangulation (Jick, 1979) was adapted by utilising document analysis of annual reports, website content and newspaper articles related to three Australian social enterprises (Bowen, 2009) based on qualitative content analysis (Hsieh & Shannon, 2005). Document analysis is a methodical approach reviewing and evaluating either printed or electronic material (Bowen, 2009) and often considered in mixed methods studies as a way of triangulation, where different methodologies are collectively applied to study the same phenomena (Denzin, 1970). Such an approach warrants an aggregation of evidence that generates credibility of the findings of this thesis (Eisner, 1991). Data were examined and interpreted so as to produce meanings, obtain understandings and develop empirical knowledge on social innovativeness of social enterprises (Corbin & Strauss, 2008). As such, three social enterprises that each won the Social Enterprise Innovation Award at the Annual Social Enterprise Awards 2016 of Social Traders Australia were selected for this purpose.

Qualitative content analysis is a flexible method for analysing text data (Cavanagh, 1997). This analytical approach focuses on the characteristics of language as communication with attention to the content and contextual meanings of newspapers, annual reports and web content of the social enterprises that formed the population sample (McTavish & Pirro, 1990); hence, this approach goes beyond the mere counts of words. With the aim of providing knowledge and understanding of the social innovativeness of social enterprises (Downe-
Wamboldt, 1992), textual contents were categorised in terms of theoretical characteristics (Bowen, 2009) of an innovative organisational culture (Hurley & Hult, 1998). The ‘priori theoretical approach’ was adopted rather an inductive approach where theme categories come from data, in identifying evidence for innovativeness in social enterprises. these priori themes come from already agreed on professional definitions found in literature reviews (Ryan & Bernard, 2003, p. 88). Therefore, the contents were intensely examined and classified to an efficient number of categories representing the theoretical characteristics (Weber, 1990). These theoretical themes were based on the features identified by Hurley and Hult (1998, p. 46): market focus; learning and development; status differential; participative decision-making; support and collaboration; power sharing; communication and tolerance for conflict; and risk taking. Text analysis began with proofreading the documents (i.e. newspaper articles, interviews and annual reports available online). Evidence of innovativeness were searched by looking for analogies and metaphors used by the interviewees and the reporters of the documents since people often represent their thoughts, behaviours, and experiences with analogies and metaphors (Lakoff and Johnson in Ryan & Bernard, 2003). Further, transitions in the interviews and paragraphs of annual reports were carefully examined as naturally occurring shifts in content may be markers of themes. In addition, constant comparisons were made among the textual contents and theoretical dimensions to identify what correctly describes the data in the documents (Glaser, 1965). Moreover, while the intense examinations of textual data were coded, evidence for characteristics of an innovative business model (Osterwalder & Pigneur, 2010) was gathered and used to develop a building block of business model for each social enterprise analysed. These building blocks were based on the theoretical features introduced by Osterwalder and Pigneur (2010, p. 19): customer segments, customer relationships, value proposition, channels, revenue streams, cost structure, key resources, key partnerships and key activities (see Chapter 7).
Since the content analysis-based data are used to develop illustrative examples of social innovativeness of social enterprises, rigor was ensured by adhering to the approaches suggested by Gibbert, Ruigrok and Wicki (2008) on validity and reliability. Assuring internal validity, constant verifications and comparisons were made between the previously mentioned theoretical constructs and the empirical evidence in documents analysed. Construct validity is the extent to which a study investigates what it claims to investigate, that is, to the extent to which a procedure leads to an accurate observation of reality (Denzin and Lincoln, 1994). This is ensured by clarifying the way behind the rationale of the study and the approach carried out in arriving at the conclusions (Yin, 1994, p. 102). This has been clarified above in conjunction with section 5.3. In relation to the generalisation of research findings, analytical generalisation is assured in this analysis (Yin, 1994). Therefore, generalisations are made from empirical observations to theory (Yin, 1999). The reliability of the analysis is assured by a disclosure of the studied organisations (chapter 7), instead of keeping it anonymous (Gibbert et al., 2008, p. 1467).

The following section focuses on clarifying the operationalisation procedure of the constructs. The results of the EFA and CFA for all the main variables in the hypothesised model are presented and discussed. It is to be noted that EFA was run only when the items were drawn from multiple sources to measure a construct.

5.4.5 Constructs Operationalisation

All the constructs were operationalised with previously validated multiple item scales. All the scale items were anchored to 7-point Likert scale and CFA and Cronbach’s Alpha test were employed to test the unidimensionality and inter-item reliability of the measures. The results of the main CFA confirmed the unidimensionality of the constructs with a satisfactory level of a fit: $\chi^2(215)=351.64, p<0.001, \chi^2/DF = 1.58< 3; \text{GFI }=0.80; \text{RMR }=0.09; \text{NFI }=0.83; \text{IFI}=0.93;$
CFI=0.93; TLI =0.92; RMSEA =0.07; SRMR=0.06 (Hair et al., 2010). The following section clarifies the nature of the measurement items, sources and unidimensionality of the constructs based on CFA.

**Operationalisation of Social Innovativeness**

Following the concept travelling approach, social innovativeness was defined as the organisation-wide commitment and tendency towards innovation. Hence, this measures the degree of social innovativeness of social enterprises. The previously validated multiple item scale presented by Hurley and Hult (1998) was used. This scale has widely been used in management and entrepreneurship research to measure innovativeness (e.g. Cepeda-Carrion, Cegarra-Navarro & Jimenez-Jimenez, 2012; Hult, Snow & Kandemir, 2003; Kyrgidou & Spyropoulou, 2013; Tajeddini & Trueman, 2008). The degree of innovativeness was measured by items anchored to a 7-point Likert scale: “strongly disagree” = 1 through “strongly agree” = 7. Since all the items are from one scale, CFA was directly employed without applying EFA. The factor loadings based on the main CFA are shown in Table 16 and all the factor items are well above the general rule of thumb of 0.6.

<table>
<thead>
<tr>
<th>Factor Items</th>
<th>Factor Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td>In our organisation, management actively seeks innovative ideas</td>
<td>0.823</td>
</tr>
<tr>
<td>In our organisation, innovation, based on research results, is readily accepted</td>
<td>0.829</td>
</tr>
<tr>
<td>In our organisation, innovation is readily accepted by management</td>
<td>0.672</td>
</tr>
<tr>
<td>In our organisation, innovation is encouraged</td>
<td>0.921</td>
</tr>
</tbody>
</table>

Source: SPSS output – Field Survey 2017

**Additional Notes to CFA:** The individual CFA analysis for the social innovativeness construct also confirmed the unidimensionality of the construct [$\chi^2(2) = 1.618, \alpha = 0.445$]. The fit indices
Organisational Social Capital and Social Innovativeness

reported a strong fitness of the items used to measure the innovativeness construct: GFI = 0.992, CFI = 1.00, NFI = 0.994 and RMSEA = 0.00 [LO 90% = 0.00, HO 90% = 0.18].

**Operationalisation of Organisational Social Capital**

The three-dimensional conceptualisation by Nahapiet and Ghoshal (1998) was used and previously validated multiple item scales from several different sources were initially used to measure variables. Tie strength (structural social capital) was measured by using items from Yli-Renko et al. (2001) and Tsai and Ghoshal (1998). Trust and trustworthiness (relational social capital) was measured by adapting items from Leana and Pil (2006). Shared vision (cognitive social capital) was measured by using items from Chiu et al. (2006). Respondents indicated the degree of agreement to the given statements by rating on a 7-point scale where “strongly disagree” = 1 and “strongly agree” = 7. The reverse coded items included in the above scales were restated as positive statements since respondents were confused during the pre-test. Given the multiple sources in adapting the measurement items, whether the indicators’ estimated pattern coefficients loaded significantly on expected factors was examined by performing EFA (Table 17).

Principle component analysis with varimax factor rotation (Tabachnick & Fidell, 2006) was used to purify the factor loadings, which produced three factors for the OSC variable. The Kaiser-Meyer-Olkin measure of sampling adequacy test was well above 0.8 while Bartlett’s test of sphericity was statistically significant ($p < 0.001$), confirming the suitability of data for factor analysis. It was found that factors from the same scale loaded significantly on alternative constructs (Table 15). The factors loaded with low values were removed from the scales. Thus, the last two factors with high factor loadings represent relational social capital, and the next three factors represent structural social capital. Cognitive social capital factors had got into the first factor where there is a mix of factor loadings. Three items representing cognitive social
capital were combined to one and considered for measurement in the study, dropping the rest. Therefore, only three main indicators were selected for the measurements: tie strength (structural social capital), trust and trustworthiness (relational social capital) and shared vision (cognitive social capital).

**Table 17: Exploratory Factor Analysis – Organisational Social Capital**

<table>
<thead>
<tr>
<th>Component</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>RSC_Trust_004</td>
<td>0.801</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RSC_Trust_005</td>
<td>0.786</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>RSC_Trust_001</td>
<td>0.748</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CSC_Shared_Vision_002</td>
<td>0.723</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSC_Tie_strength_004</td>
<td>0.627</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>CSC_Shared_Vision_001</td>
<td>0.621</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Innovativeness_001</td>
<td></td>
<td>0.863</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Innovativeness_004</td>
<td></td>
<td>0.832</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Innovativeness_003</td>
<td></td>
<td>0.823</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Innovativeness_002</td>
<td></td>
<td>0.802</td>
<td></td>
<td></td>
</tr>
<tr>
<td>SSC_Tie_strength_002</td>
<td></td>
<td></td>
<td>0.904</td>
<td></td>
</tr>
<tr>
<td>SSC_Tie_strength_001</td>
<td></td>
<td></td>
<td>0.901</td>
<td></td>
</tr>
<tr>
<td>SSC_Tie_strength_003</td>
<td></td>
<td></td>
<td>0.645</td>
<td></td>
</tr>
<tr>
<td>RSC_Trust_003</td>
<td></td>
<td></td>
<td></td>
<td>0.947</td>
</tr>
<tr>
<td>RSC_Trust_002</td>
<td></td>
<td></td>
<td></td>
<td>0.931</td>
</tr>
</tbody>
</table>

*Extraction method: Principal component analysis*

*Rotation method: Varimax with Kaiser normalisation*

a. Rotation converged in 6 iterations.

*Source: SPSS output – Field Survey 2017*
Following this, CFA was used to assess the unidimensionality of these items and the factor loadings based on the main CFA are shown in Table 18. All the factor loadings are well above the 0.6 general threshold level.

**Table 18: Confirmatory Factor Analysis – Organisational Social Capital**

<table>
<thead>
<tr>
<th>Measurement Items</th>
<th>Factor Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Structural social capital (tie strength)</strong></td>
<td></td>
</tr>
<tr>
<td>In our organisation, we spend significant time together in social situations</td>
<td>0.86</td>
</tr>
<tr>
<td>In our organisation, we maintain close social relationships with one another</td>
<td>0.98</td>
</tr>
<tr>
<td>In our organisation, we know colleagues of the other functional departments on a personal level</td>
<td>0.67</td>
</tr>
<tr>
<td><strong>Relational social capital (trust and trustworthiness)</strong></td>
<td></td>
</tr>
<tr>
<td>Employees in our organisation have confidence in one another</td>
<td>0.92</td>
</tr>
<tr>
<td>Employees in our organisation show a great deal of integrity</td>
<td>0.71</td>
</tr>
<tr>
<td><strong>Cognitive social capital (shared vision)</strong></td>
<td></td>
</tr>
<tr>
<td>In our organisation, all of us share the same ambitions and vision for the organisation</td>
<td>0.65</td>
</tr>
<tr>
<td>In our organisation, all of us enthusiastically pursue collective goals and mission</td>
<td>0.95</td>
</tr>
</tbody>
</table>

Source: SPSS output – Field Survey 2017

**Additional Notes to CFA:** The individual CFA for OSC further confirms the good fit of the measurement items in measuring the concept \( \chi^2 (17) = 22.42, \alpha = 0.17 \). The other fit indices also confirm the statistical fitness of the items with GFI = 0.96, CFI = 0.99, NFI = 0.95 and RMSEA = 0.05 (LO 90% = 0.00 and HO 90% = 0.11).

**Operationalisation of Knowledge Creation**

Knowledge creation was measured with 7-point Likert scale with multiple items adapted from Shu et al. (2012). Responses were provided ranging from “strongly disagree = 1” to “strongly disagree = 7” indicating the degree of knowledge creation. Since these items were adapted from one source, CFA was directly applied without EFA.
The factor loadings of the main CFA pertinent to knowledge creation measuring items are shown in Table 19 and all the items meet the general threshold level.

**Table 19: Confirmatory Factor Analysis – Knowledge Creation**

<table>
<thead>
<tr>
<th>Measurement Items</th>
<th>Factor Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Employees of our organisation are:</strong></td>
<td></td>
</tr>
<tr>
<td>given abundant training to assist personal interactions and communications</td>
<td>0.66</td>
</tr>
<tr>
<td>provided with on-the-job training to help them exchange and refine their ideas</td>
<td>0.68</td>
</tr>
<tr>
<td>encouraged to combine or recombine ideas to solve problems or create opportunities</td>
<td>0.70</td>
</tr>
<tr>
<td>encouraged to absorb, assimilate, and recombine information from different sources (internal and external)</td>
<td>0.75</td>
</tr>
<tr>
<td>encouraged to share and learn from their experiences and failures</td>
<td>0.84</td>
</tr>
<tr>
<td>encouraged to combine external and internal knowledge to generate new ideas</td>
<td>0.86</td>
</tr>
<tr>
<td><strong>In our organisation:</strong></td>
<td></td>
</tr>
<tr>
<td>middle-level managers are empowered and frequently trained to communicate with their supervisors and subordinates</td>
<td>0.62</td>
</tr>
<tr>
<td>senior managers emphasise information exchange and sharing</td>
<td>0.66</td>
</tr>
<tr>
<td>we are frequently recombining existing knowledge to meet new demands</td>
<td>0.60</td>
</tr>
</tbody>
</table>

Source: SPSS output – Field Survey 2017

**Additional Notes to CFA:** The individual CFA for knowledge creation also confirms that the items measuring knowledge creation are with a good fit \( \chi^2 (16) = 20.48, \alpha = 0.20 \). The other indices confirm the statistical fitness of the items with GFI = 0.96, CFI = 0.99, NFI = 0.97 and RMSEA = 0.05 (LO 90% = 0.00 and HO 90% = 0.11).

**Operationalisation of Opportunity-Motivation-Ability**

Opportunities to exchange, motivation to exchange and ability to exchange and combine were measured with 7-point Likert scale items adapted from Collins and Smith (2006). Respondents rated the degree of opportunity availability, motivation and ability to exchange and combine knowledge from “strongly disagree = 1” to “strongly disagree = 7”. The results of the main
CFA are summarised in Table 20 and factor loadings are well above the general acceptance level.

**Table 20: Confirmatory Factor Analysis – Opportunity-Motivation-Ability**

<table>
<thead>
<tr>
<th>Measurement Items</th>
<th>Factor Loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Ability to exchange and combine knowledge</strong></td>
<td></td>
</tr>
<tr>
<td>Employees of our organisation are proficient at combining and exchanging ideas to solve problems or create opportunities</td>
<td>0.79</td>
</tr>
<tr>
<td>Employees of our organisation do a good job of sharing their individual ideas to come up with new ideas, products, or services</td>
<td>0.85</td>
</tr>
<tr>
<td><strong>Motivation to exchange knowledge</strong></td>
<td></td>
</tr>
<tr>
<td>Employees of our organisation see benefits from exchanging and combining ideas with one another</td>
<td>0.77</td>
</tr>
<tr>
<td>Employees of our organisation believe that by exchanging and combining ideas they can move new projects forward more quickly than by working alone</td>
<td>0.70</td>
</tr>
<tr>
<td>Employees of our organisation are willing to exchange and combine ideas with their co-workers</td>
<td>0.71</td>
</tr>
<tr>
<td><strong>Opportunities to exchange knowledge</strong></td>
<td></td>
</tr>
<tr>
<td>Employees of our organisation at the end of each day, feel that they have learned from each other by exchanging and combining ideas</td>
<td>0.82</td>
</tr>
<tr>
<td>Employees of our organisation often exchange and combine ideas to find solutions to problems</td>
<td>0.84</td>
</tr>
</tbody>
</table>

Source: SPSS output – Field Survey 2017

**Additional Notes to the CFA:** The individual CFA for opportunity-motivation-ability factors also confirmed the consistency and unidimensional nature of constructs with satisfactory level fit: $\chi^2 (17) = 22.42, \alpha = 0.17$. The other fit indices also confirm the statistical fitness of the items with GFI = 0.92, CFI = 0.95, NFI = 0.94 and RMSEA = 0.07 (LO 90% = 0.00 and HO 90% = 0.10).

**Control Variables**

Firm age is a meaningful boundary condition in innovation and entrepreneurship research (Anderson & Eshima, 2013; Rosenbusch, Brinckmann & Bausch, 2011). Older firms tend to have the broader market understanding to design entrepreneurial actions (Cohen & Levinthal,
1990) while there may be less significant outcomes given the declining market relevance of the knowledge (Anderson & Eshima, 2013). There is a considerable difference in capabilities among small and larger firms (Ojiako, Chipulu, Karatas-Ozkan, Siao & Maguire, 2015). Larger firms require a more structured approach to executing organisational activities (Ahuja & Morris Lampert, 2001), often limiting prompt change due to structural complexities (Baker and Cullen, 1993).

Given the above significance, firm age and firm size were used as control variables of the models. Firm age was measured in terms of number of years in active operation. Firm size was measured in terms of number of permanent staff members in the organisation. Whenever the firm size is classified, the classification is provided by the Australian Bureau of Statistics, where firm size is defined as 1–4 employees = micro business; 5–19 employees = small business; 20–200 = medium business and above 200 = large business.

5.4.6 Reliability and Validity

Reliability of the study was assured in two ways; reliability of the empirical data and reliability of the constructs. Reliability of the empirical data was ensured by conducting a pre-test and a pilot test before embarking on data collection. Further, responses were collected from managerial level employees in social enterprises as they are the most suitable group, with a strong understanding of the firm’s operations and culture. Cronbach’s Alpha test was employed to assess the reliability of individual scale items following the pilot study (see Table 8). The results were discussed in detail under section 5.4.2.

After the main survey, all the scale items were further examined for reliability, convergent validity and discriminant validity by assessing the composite reliability and Cronbach’s alpha, average variance extracted, Fornell-Larcker Criterion (Hair et al., 2010) in a CFA, respectively. The results are summarised in Table 21.
Reliability of the individual items and the constructs were assessed by Cronbach’s alpha and the composite reliability. Cronbach’s alpha confirmed that all the individual scale items were well above the general cut-off point of 0.7 in their inter-item reliability (Nunnally, 1978). As a stronger measure of internal consistency of the scale items, composite reliability demonstrated a higher reliability with items well above the 0.7 threshold.

To warrant the validity of the study, several measures were taken. Firstly, the extensive systematic literature review, building on previous research and the pre-test, ensured the face validity of the study. Secondly, all the key constructs were measured with previously validated multiple item scales to ensure the content validity and the discriminant validity of the constructs. Convergent validity and discriminant validity together ensure the construct validity. Accordingly, AVE for all the variables were above 0.5 (Hair et al., 2010) confirming the convergent validity. Fornell-Larcker Criterion- square root of AVE greater than inter-construct correlations, confirms the discriminant validity of the items (Table 21). To further warrant the discriminant validity under the construct validity, common method bias assessment was conducted. Accordingly, Harman’s single factor analysis confirmed that the first factor explains 39% of the variance assuming the absence of common method variance. Moreover,
as discussed in section 5.4.5, general fit indices were indicating a satisfactory level of fit: 
\( \chi^2(215)=351.64, p<0.001, \chi^2/DF = 1.58<3; \) GFI =0.80; RMR =0.09; NFI =0.83; IFI=0.93; CFI=0.93; TLI =0.92; RMSEA =0.07; SRMR=0.06 (Hair et al., 2010).

5.5 SUMMARY

Based on the objectivistic ontology and positivistic epistemology, this thesis addresses the central research question – *In what ways do OSC, opportunity-motivation-ability and knowledge creation explain social innovativeness?* – by designing a cross-sectional explanatory survey design with a deductive approach. Social Enterprise Finder registry listed social enterprises in Australia were treated as the population of the study. Data collection was executed in three phases: pre-test, pilot test and main survey. The main survey was conducted through the Qualtrics online survey tool and postal mailings based on the Tailored Design Method. A total of 112 useable responses were received from 476 invitations and postal mails sent to social enterprise managers making the response rate 19.5%. Data analysis was executed by performing preliminary tests, confirmatory factor analysis, exploratory factor analysis, reliability test, non-response bias analysis, common method variance analysis and missing value analysis. Data analyses was done mainly by employing simple and multiple linear regression tests, and SEM. The next chapter presents the quantitative data analysis executed through the above approaches explained and discussed in this chapter.
CHAPTER 6: QUANTITATIVE DATA ANALYSIS

6.1 OBJECTIVE

The central objective of this thesis was to examine the ways OSC, opportunity-motivation-ability and knowledge creation explain social innovativeness in Australian social enterprises. This thesis took a mixed method approach to address the overarching research question. The previous chapter explained the specific methods employed in terms of quantitative and qualitative procedures. The purpose of this chapter is to present the quantitative analysis of the survey data. Firstly, a descriptive overview of the respondents and social enterprises in the studied sample is presented. Secondly, the level of social innovativeness of Australian social enterprises is assessed. Thirdly, the results of the path analysis of structural equation modelling are presented along with the linear regression as robustness measures in hypothesis testing. The structural model testing results will follow the three simple models developed in Chapter 4 in terms of three OSC dimensions – structural, relational and cognitive social capital – followed by the results of the integrated model.

6.2 PROFILE OF THE SURVEY RESPONDENTS

The survey respondents were managerial level employees working as human resources managers, marketing managers or operational managers. The following is a summary of the responding managers’ demographic information.

6.2.1 Respondents’ Age, Gender, Educational Qualifications and Work Experience

In total, 112 social enterprise managers responded to the survey leading to a response rate of 19%. This response rate is consistent with studies conducted in the Australian social enterprise
sector such as Barraket et al. (2016b); Barraket and Furneaux (2012a) and Barraket, Collyer, O’Connor and Anderson (2010). Fifty-nine per cent of the social enterprise managerial employees are male and 41% are female (see Table 22).

<table>
<thead>
<tr>
<th>Variable</th>
<th>Category</th>
<th>Frequency</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td>Male</td>
<td>66</td>
<td>59</td>
</tr>
<tr>
<td></td>
<td>Female</td>
<td>46</td>
<td>41</td>
</tr>
<tr>
<td>Age</td>
<td>18–30 years</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>31–50 years</td>
<td>49</td>
<td>44</td>
</tr>
<tr>
<td></td>
<td>51–70</td>
<td>51</td>
<td>46</td>
</tr>
<tr>
<td></td>
<td>Above 70</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>Educational Qualification</td>
<td>Above bachelor’s degree</td>
<td>34</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>Bachelor’s degree</td>
<td>33</td>
<td>29</td>
</tr>
<tr>
<td></td>
<td>Advanced Diploma</td>
<td>25</td>
<td>22</td>
</tr>
<tr>
<td></td>
<td>Certificate III &amp; IV</td>
<td>7</td>
<td>6</td>
</tr>
<tr>
<td></td>
<td>Certificate I &amp; II</td>
<td>9</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>Senior secondary certificate of education</td>
<td>1</td>
<td>1</td>
</tr>
<tr>
<td></td>
<td>Missing data</td>
<td>3</td>
<td>3</td>
</tr>
</tbody>
</table>

Source: Field Survey 2017

Ninety per cent of the social enterprise managers are in the age group of 31–70 years. Nearly 60% of the social enterprise managerial employees are qualified at least with a bachelor’s degree.

6.2.2 Service Tenure and Responsibility Area of Work of the Manager

Nearly 76% of the social enterprise managers have been working in their respective social enterprise for over three years (Figure 19). At the same time, a similar percentage of managers possess service tenure of less than three years. Remarkably, there are five managers with 25 years of service experience in the same social enterprise.
6.3 BACKGROUND OF THE SURVEYED SOCIAL ENTERPRISES

The following section summarises the background of surveyed social enterprises and compares this with the findings of one of the main surveys of the sector: Finding Australia’s Social Enterprise Sector – FASES 2016 (Barraket et al., 2016b) and 2010 (Barraket et al., 2010) mainly. Additionally, findings from other countries such as the United Kingdom (UK) are also used in this comparison wherever suitable depending on the availability of such findings, to distinguish the uniqueness of Australian social enterprises.

6.3.1 Mission and Purpose of Social Enterprises

The mission of the social enterprise was captured in three areas of emphasis: social value, economic value and environmental value. Figure 20 shows that relative level of emphasis is very much concentrated on social value, while economic and environmental values are a lesser concern. The average level of emphasis on social value stands at 55.60, then 29.26 for economic value and 14.21 for environmental value. There were 10 social enterprises with 100% focus on their social mission, and 10 social enterprises with more than 50% focus on economic value. In addition, one social enterprise was found to be focusing 90% on economic value while another had an 80% focus on environmental value.
Organisational Social Capital and Social Innovativeness

Figure 20: Level of Emphasis on Organisational Mission

Social mission can further be examined with the specific purpose of the enterprise (Table 23). This analysis identifies that social enterprises tend to serve a diversity of social missions.

Table 23: Comparison of Social Mission of Social Enterprises

<table>
<thead>
<tr>
<th>Social Mission</th>
<th>Current Study 2016 N = 112 Frequency (Percentage)</th>
<th>FASES 2016 N = 359</th>
<th>FASES 2010 N = 474</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fulfil a community mission</td>
<td>65 (58%)</td>
<td>61%</td>
<td>65%</td>
</tr>
<tr>
<td>Provide benefits to our members</td>
<td>12 (10%)</td>
<td>22%</td>
<td>17%</td>
</tr>
<tr>
<td>Support the mission of our non-profit auspice</td>
<td>28 (25%)</td>
<td>12%</td>
<td>16%</td>
</tr>
<tr>
<td>Generate financial benefits for individuals</td>
<td>3 (3%)</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Other</td>
<td>4 (4%)</td>
<td>–</td>
<td>–</td>
</tr>
</tbody>
</table>

Source: Field Survey 2017; FASES 2016 (Barraket et al., 2016) and FASES 2010 (Barraket et al., 2010)
Most of social enterprises (58%) reported that their purpose is to fulfil a public or community benefit and this finding is consistent with FASES 2016 and 2010. Further, it can be seen in Table 23 that the second major specific purpose is supporting the mission of non-profit auspice (25%). This result is different from FASES 2016 and 2010 where the second highest aim is providing benefits to the members of social enterprises. However, these auspice agreement–based social enterprises are the funding mechanism of large non-profit organisations and it is a unique aspect of the Australian social enterprise sector. It is also quite interesting to note that there are three social enterprises with a specific purpose of generating financial benefits for individuals and this rather deviates from the general purpose of a social enterprise. This may have a link to social enterprises which had a high level of economic value emphasis in their mission.

6.3.2 Legal Structure, Firm Age and Firm Size

Although there is no mandatory requirement to incorporate a social enterprise in Australia, 93 of the sample social enterprises were incorporated entities. While there were nine unincorporated social enterprises, 10 surveyed social enterprises did not report their legal status. As identified in Chapter 3, there is no mandatory requirement to incorporate social enterprises in Australia. Table 24 summarises the percentage of social enterprises under each category of legal structure.

Most of the social enterprises are incorporated entities and it is a consistent feature over the three surveys. However, the proportions of the categories seem to be largely different. This may be due to the differences in categorisation criteria. FASES 2016 and 2010 had separately included the categories of “incorporated” and “unincorporated” associations whereas the current study considered only whether the social enterprises were incorporated or unincorporated.
There were 13 enterprises which identified as profit-oriented organisations while 97 were recognised as non-profit organisations. There were 71 single entities while 41 enterprises were part of a large organisation with multiple entities. Further, 13 of those part of a large organisation are subsidiaries and another 24 are auspice agreement–based entities. FASES 2010 found that 10% of the social enterprises were based on auspice agreements. By contrast, this study recognises that 24 (21%) of the studied enterprises are auspice entities. These 24 auspice agreements–based social enterprises have a unique social mission: to support the social mission of the non-profit organisation (Table 23) under which those enterprises have been established.

The average firm age was 34 years with a standard deviation of 36. The youngest social enterprise is one year of age while the oldest is 184 years. It seems that the distribution is vulnerable to extreme values and a clearer understanding can be obtained with the box plot (Figure 21). Accordingly, it can be observed that there are a large number of outliers and extreme values. The one-hundredth social enterprise in the data set started 184 years ago. The current study finds that 71% of social enterprises have been in operation for more than 10 years while FASES 2016 and 2010 found 38% and 62% in the same category respectively (Table

---

**Table 24: Comparison of Social Enterprise Legal Structure**

<table>
<thead>
<tr>
<th>Legal Structure</th>
<th>Current Study 2016 N = 112</th>
<th>FASES 2016 N = 256(^{14})</th>
<th>FASES 2010 N = 347(^{15})</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incorporated</td>
<td>93 (83%)</td>
<td>33%</td>
<td>52%</td>
</tr>
<tr>
<td>Unincorporated</td>
<td>9 (8%)</td>
<td>1%</td>
<td>35%</td>
</tr>
<tr>
<td>Missing data</td>
<td>10 (9%)</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Other categories</td>
<td>–</td>
<td>66%</td>
<td>13%</td>
</tr>
</tbody>
</table>

Source: Field Survey 2017; FASES 2016 (Barraket et al., 2016) and FASES 2010 (Barraket et al., 2010)
A significant difference of the findings can be seen in comparison to FASES 2016, while 2010 findings are on par with the current study.

The FASES 2016 sample includes 34% of three-to-five-year old social enterprises whereas this is only 8% in the current study and 12% in FASES 2010.

<table>
<thead>
<tr>
<th>Age Category</th>
<th>Current Study 2016</th>
<th>FASES 2016</th>
<th>FASES 2010</th>
</tr>
</thead>
<tbody>
<tr>
<td>Less than 2 years</td>
<td>4%</td>
<td>13%</td>
<td>8%</td>
</tr>
<tr>
<td>3–5 years</td>
<td>8%</td>
<td>34%</td>
<td>12%</td>
</tr>
<tr>
<td>6–10 years</td>
<td>17%</td>
<td>11%</td>
<td>11%</td>
</tr>
<tr>
<td>More than 10 years</td>
<td>71%</td>
<td>38%</td>
<td>62%</td>
</tr>
</tbody>
</table>

Source: Field Survey 2017; FASES 2016 (Barraket et al., 2016) and FASES 2010 (Barraket et al., 2010)
Firm size\textsuperscript{16} diversity is prominent among Australian social enterprises and small and medium scale social enterprises make up 71\% of the sample (Table 26).

<table>
<thead>
<tr>
<th>Firm Size (Number of Permanent Employees)</th>
<th>Current Study 2016 N = 112</th>
<th>FASES 2016 N = 137</th>
<th>FASES 2010 N = 218</th>
</tr>
</thead>
<tbody>
<tr>
<td>Micro</td>
<td>17%</td>
<td>–</td>
<td>–</td>
</tr>
<tr>
<td>Small</td>
<td>38%</td>
<td>73%</td>
<td>75%</td>
</tr>
<tr>
<td>Medium</td>
<td>33%</td>
<td>23%</td>
<td>24%</td>
</tr>
<tr>
<td>Large</td>
<td>12%</td>
<td>4%</td>
<td>4%</td>
</tr>
</tbody>
</table>

Source: Field Survey 2017; FASES 2016 (Barraket et al., 2016) and FASES 2010 (Barraket et al., 2010)

The findings are considerably different from FASES 2016 and 2010 where there were no micro sized social enterprises. Yet, the current study identifies 17\% of surveyed social enterprises are micro scale. These micro scale businesses tend to depend largely on volunteers while employing few permanent staff. In a similar manner to the Australian context, 72\% of social enterprises in the UK have been operating for more than 10 years. Reflecting on another comparative trait, a majority of the UK social enterprises, nearly 69\%, are micro businesses where there are only one to nine employees (UK Government, 2017). The classification difference is obvious, yet nearly 71\% of Australian social enterprises are small and medium scale (Table 32). These comparative features locate the Australian social enterprise sector at a unique place, even though there is no dedicated legal sector as is the case in the UK.

6.4 DEGREE OF SOCIAL INNOVATIVENESS OF AUSTRALIAN SOCIAL ENTERPRISES

The following section answers sub-research question 1 of the study by assessing the level of social innovativeness of the Australian social enterprises. The degree of social innovativeness of the social enterprises was classified in terms of three levels: low, medium and high\textsuperscript{17}. The
average overall social innovativeness is at a high level according to the classification, given the mean of 6.00 (Table 27).

Table 27: Descriptive Statistics: Degree of Social Innovativeness

<table>
<thead>
<tr>
<th>Social Innovativeness Scale Items</th>
<th>Minimum</th>
<th>Maximum</th>
<th>Mean</th>
<th>Std Deviation</th>
</tr>
</thead>
<tbody>
<tr>
<td>In our organisation:</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Management actively seeks innovative ideas</td>
<td>2.00</td>
<td>7.00</td>
<td>6.23</td>
<td>1.10</td>
</tr>
<tr>
<td>Innovation based on research results, is readily accepted</td>
<td>2.00</td>
<td>7.00</td>
<td>5.78</td>
<td>1.15</td>
</tr>
<tr>
<td>Innovation is readily accepted by management</td>
<td>2.00</td>
<td>7.00</td>
<td>5.96</td>
<td>1.09</td>
</tr>
<tr>
<td>Innovation is encouraged</td>
<td>2.00</td>
<td>7.00</td>
<td>6.05</td>
<td>1.29</td>
</tr>
<tr>
<td>Overall social innovativeness</td>
<td>2.00</td>
<td>7.00</td>
<td>6.00</td>
<td>1.00</td>
</tr>
</tbody>
</table>

Source: Field Survey 2017; FASES 2016 (Barraket et al., 2016) and FASES 2010 (Barraket et al., 2010)

However, the overall level of social innovativeness is negatively skewed as a majority are located at the higher end of the distribution (Figure 22). This negative skewness confirms that a majority of the social enterprise managerial employees have rated a high social innovativeness level pertaining to their respective social enterprises. Nearly 82% of the social enterprises are in this category of social innovativeness. The average of the four key characteristics used to assess social enterprises’ social innovativeness is just above the lower bound of the high category of the classification.

Table 27 shows that management’s active seeking for innovative ideas is highest among the four characteristics. The overall distribution of these characteristics is shown in Figure 23. All four tend to have left-skewed distributions. Interestingly, extreme values and outliers can also be seen in relation to two criteria: management’s active seeking for innovative ideas and level of innovation encouragement. Three social enterprises’ (21, 52 and 70) level of active seeking for innovative ideas is at a very low level. Social enterprises 53 and 42 are extremely low in active involvement in seeking for new ideas. Further, social enterprises 56, 70 and 86 are very
low in innovation encouragement. Further, another four social enterprises (31, 42, 53 and 71) show an extremely low level of innovation encouragement within their organisations.

**Figure 22: Overall Degree of Social Innovativeness**

Source: Field Survey 2017

**Figure 23: Box Plot on Comparison – Innovativeness**

Source: Field Survey 2017
The relative level of innovation introduction of these social enterprises was also studied and plotted (Figure 24). Although the level of social innovativeness is shown to have a skewed distribution, the relative level of innovation introduction tends to have a normal distribution with an average of 4.5. Only 38% of the social enterprises tend to have a high relative level of innovation introduction. Acknowledging the measurement differences, the Social Enterprise Market Trends Report of the UK Government (2017) found that nearly 66% of the UK social enterprises studied had introduced new or significantly improved products, and nearly 48% had introduced such processes during the last three years. Based on the relationships discussed in extant literature, correlation analysis was performed to examine the association between social innovativeness and relative level of innovation introduction. It was found that social innovativeness and relative level of innovation introduction tend to have a statistically significant positive association ($r = 0.340, p < 0.010$).

Figure 24: Relative Level of Innovation Introduction

Source: Field Survey 2017
Firm age and firm size tend to influence the level of innovativeness of a firm and were used as control variables in a majority of studies. Therefore, the following graphs (Figure 25 and 26) were plotted to see whether there is a specific pattern of the distribution.

**Figure 25: Firm Age vs Level of Social Innovation Orientation**

![Graph showing the relationship between firm age and level of social innovation orientation.](image)

Source: Field Survey 2017

**Figure 26: Firm Size vs Level of Social Innovation Orientation**

![Graph showing the relationship between firm size and level of social innovation orientation.](image)

Source: Field Survey 2017
Both figures do not possess a specific pattern of distribution, but the level of social innovation orientation seems to follow a constant behaviour against firm age and firm size in general. This confirms a low variation in the level of social innovation orientation among the firms.

### 6.5 RELATIONSHIP BETWEEN ORGANISATIONAL SOCIAL CAPITAL AND SOCIAL INNOVATIVENESS

#### 6.5.1 Descriptive Statistics and Correlation Analysis for Studied Variables

Table 28 summarises the descriptive statistics and correlations between all the studied variables.

| No. | Variable                  | Mean  | SD   | 1    | 2    | 3    | 4    | 5    | 6    | 7    | 8    | 9    |
|-----|---------------------------|-------|------|------|------|------|------|------|------|------|------|------|------|
| 1   | Firm size                 | 108.64| 279.37|      |      |      |      |      |      |      |      |      |      |
| 2   | Firm age                  | 34.58 | 35.87|      |      |      |      |      |      |      |      |      |      |
| 3   | Tie strength              | 4.86  | 1.16 |      |      |      |      |      |      |      |      |      |      |
| 4   | Trust                     | 5.42  | 1.41 |      |      |      |      |      |      |      |      |      |      |
| 5   | Shared vision             | 5.68  | 1.05 |      |      |      |      |      |      |      |      |      |      |
| 6   | Ability<sup>a</sup>       | 5.52  | 1.07 |      |      |      |      |      |      |      |      |      |      |
| 7   | Opportunities<sup>b</sup> | 5.53  | 1.08 |      |      |      |      |      |      |      |      |      |      |
| 8   | Motivation<sup>c</sup>    | 5.77  | 1.17 |      |      |      |      |      |      |      |      |      |      |
| 9   | Knowledge creation        | 5.51  | 0.85 |      |      |      |      |      |      |      |      |      |      |
| 10  | Social innovativeness     | 5.99  | 1.00 |      |      |      |      |      |      |      |      |      |      |

R<sub>tie strength</sub> is significantly and positively correlated with motivation to knowledge exchange (<i>r</i> = 0.28, <i>p</i> < 0.01), opportunities to knowledge exchange (<i>r</i> = 0.38, <i>p</i> < 0.01) and abilities to
knowledge exchange ($r = 0.38, p < 0.01$). Highly significant, strong positive associations were found between shared vision and motivation to knowledge exchange ($r = 0.60, p < 0.01$), opportunities to knowledge exchange ($r = 0.60, p < 0.01$) and abilities to knowledge exchange ($r = 0.70, p < 0.01$). Trust is positively associated with opportunities to knowledge exchange ($r = 0.27, p < 0.01$) and abilities to knowledge exchange ($r = 0.33, p < 0.01$). A marginally significant positive association was found between trust and trustworthiness and motivation to knowledge exchange ($r = 0.20, p < 0.05$).

Moving on to the inferential statistical analysis, before testing the integrated model of the thesis, a three-phase testing approach was adopted for hypotheses testing as a cautious way to address the skewed data distribution in some of the variables and the small sample size. Accordingly, a series of (1) simple linear regression tests, and (2) three sub-structural models in terms of OSC dimensions were performed to test the nine hypotheses, assuring the rigour and internal validity in statistical testing. After the CFA, summated scales were used in testing the hypothesised relationships. Then, the overall structural model was tested by employing structural equation modeling. The following section explains the results under each of these methods.

### 6.5.2 Inferential Statistical Analysis: Structural Social Capital and Social Innovativeness

**Regression Analysis for Testing Hypotheses 1–3**

The results of the linear regression analysis for testing hypotheses 1–3 are summarised in Table 29. The relationship between tie strength and opportunities for exchange was found to be statistically significant and positive [$F(3, 108) = 6.67, p = < 0.01, R^2 = 0.16$]. This indicates that a unit increase in the level of tie strength would result in an increase of the level of opportunities for exchange by 0.35 [$b = 0.35, t(108) = 4.07, p < 0.01$]. This confirms the
Organisational Social Capital and Social Innovativeness

support for Hypothesis 1. Opportunities for exchange and knowledge creation was also statistically significant and positive \[F(3, 108) = 20.51, p < 0.001, R^2 = 0.36\], confirming that a unit increase in the level of opportunities for exchange would increase the level of knowledge creation by 0.47 \[b = 0.47, t(108) = 7.72, p < 0.001\], confirming Hypothesis 2.

Results also revealed that there was a statistically significant positive relationship between knowledge creation and social innovativeness \[F(3, 108) = 14.73, p < 0.001, R^2 = 0.29\].

Table 29: Regression Test Results for Hypotheses 1–3

<table>
<thead>
<tr>
<th>Dependent Variables</th>
<th>Opportunities to Exchange</th>
<th>Knowledge Creation</th>
<th>Social Innovativeness</th>
</tr>
</thead>
<tbody>
<tr>
<td>Independent Variables</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>H1: Tie strength</td>
<td>.35***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H2: Opportunities to exchange</td>
<td>.47***</td>
<td></td>
<td></td>
</tr>
<tr>
<td>H3: Knowledge creation</td>
<td></td>
<td>0.64***</td>
<td></td>
</tr>
<tr>
<td>Control Variables</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firm age</td>
<td>–0.01</td>
<td>0.00</td>
<td>–7.58</td>
</tr>
<tr>
<td>Firm size</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Model Indices</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>R^2</td>
<td>0.16</td>
<td>0.36</td>
<td>0.29</td>
</tr>
<tr>
<td>Adjusted R^2</td>
<td>0.13</td>
<td>0.35</td>
<td>0.27</td>
</tr>
<tr>
<td>F</td>
<td>6.67***</td>
<td>20.51***</td>
<td>14.73***</td>
</tr>
<tr>
<td>N</td>
<td>112</td>
<td>112</td>
<td>112</td>
</tr>
</tbody>
</table>

***p ≤ 0.001, **p ≤ 0.01, *p ≤ 0.05

Source: SPSS output – Field Survey 2017

Hence, a unit increase in the level of knowledge creation will increase social innovativeness by 0.64 \[b = 0.64, t(108) = 6.64, p < 0.001\]. This supports Hypothesis 3.

Structural Model for SSC and Social Innovativeness Relationship

Nested model tests were employed to assess the fit of the hypothesised model and to test its robustness by comparing it to alternative models, as stated in Chapter 5. Accordingly, the chi-
square test of difference was used to internally validate the structural model for the structural social capital and social innovativeness relationship. The hypothesised model fitted well with data [$\chi^2 = 13.47$, $(7, 112)$, $p > .05]$). The results of the nested model comparison are summarised in Table 30.

**Table 30 - Nested Model Comparison – SSC and Social Innovativeness**

<table>
<thead>
<tr>
<th>Model</th>
<th>$\chi^2$ ($df$)</th>
<th>$\Delta \chi^2$ ($\Delta df$)</th>
<th>RMSEA</th>
<th>AGFI</th>
<th>CFI</th>
<th>NFI</th>
<th>SRMR</th>
<th>Comparison</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypothesised Model</td>
<td>13.47(7)</td>
<td>0.09</td>
<td>0.89</td>
<td>0.96</td>
<td>0.92</td>
<td>0.06</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Control Variables Only Model</td>
<td>118.31(10)**</td>
<td>– 104.85(3)**</td>
<td>0.31</td>
<td>0.40</td>
<td>0.32</td>
<td>0.24</td>
<td>Control variables only model compared to hypothesised model</td>
<td></td>
</tr>
<tr>
<td>Fully Mediated Modified Model</td>
<td>3.56(6)</td>
<td>9.91(1)**</td>
<td>0.00</td>
<td>0.96</td>
<td>1.00</td>
<td>0.98</td>
<td>0.03</td>
<td>Fully mediated modified model compared to hypothesised model</td>
</tr>
<tr>
<td>Partially Mediated Model 1</td>
<td>2.04(5)</td>
<td>1.517(1)**</td>
<td>0.00</td>
<td>0.98</td>
<td>1.00</td>
<td>0.99</td>
<td>0.03</td>
<td>Partially mediated model 1 compared to fully mediated modified model</td>
</tr>
<tr>
<td>Partially Mediated Model 2</td>
<td>1.96(4)</td>
<td>1.60(2)**</td>
<td>0.00</td>
<td>0.97</td>
<td>1.00</td>
<td>0.99</td>
<td>0.03</td>
<td>Partially mediated model 2 compared to fully mediated modified model</td>
</tr>
</tbody>
</table>

***$p \leq 0.001$, **$p \leq 0.01$, *$p \leq 0.05$  

*Note: Sequence of model testing was guided by the existence of full vs. partial mediation models*

Source: AMOS output – Field Survey 2017

The first nested model comparison confirmed that the hypothesised model is significantly better fitted than the control variables only model ($\Delta \chi^2 = 104.85$, $\Delta df = 3$, $p < 0.01$). The second comparison was between the partially mediated model 1 and the hypothesised model. The partially mediated model 1 specified the paths in the hypothesised model and a direct path from opportunities to exchange and social innovativeness. The change in the chi-square test showed that this alternative model is significantly better than the hypothesised model ($\Delta \chi^2 = 9.91$, $\Delta df = 1$, $p < 0.01$).
The partially mediated model 1 was retained as the best fitting model and was then compared with partially mediated models 2 and 3. Partially mediated model 2 specified all the paths in the partially mediated model 1 and a direct path from tie strength to knowledge creation. Partially mediated model 3 included all the paths in partially mediated model 2 and a direct path from tie strength to social innovativeness. The chi-square test of differences revealed that partially mediated modified models 2 and 3 were not significantly better than fully mediated modified model and were less parsimonious.

Accordingly, the partially mediated model 1 (Figure 27) was retained as the best fitting model and interpreted below to examine the hypothesised relationships. Examination of the standardised parameter estimates confirmed that the three hypothesised relationships were statistically significant and were in the predicted directions (Figure 27) when the control variables were accounted for. Specifically, Hypothesis 1 relates tie strength with opportunities to exchange. The statistically significant parameter estimation ($b = 0.38, p < 0.01$) indicated support for Hypothesis 1. This means that the higher the tie strength, the higher will be the opportunities created by them. Hypothesis 2 relates opportunities to exchange with knowledge creation and the statistically significant parameter estimate ($b = 0.60, p < 0.01$) confirmed support for the hypothesis. Social enterprise managers who reported higher opportunities for knowledge exchange accordingly indicated a higher level of knowledge creation in their social enterprises. Hypothesis 3 was supported as there was a statistically significant parameter estimate on the relationship between knowledge creation and social innovativeness ($b = 0.36, p < 0.01$). This indicates that higher level of knowledge creation increases social innovativeness of social enterprises. These results further confirm the primary confirmations obtained for hypotheses 1–3 from regression analysis.
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Figure 27: Tested Structural Model for SSC and Social Innovativeness

![Diagram of the structural model]

**Fit Indices:**
\[ \chi^2 (6, 112) = 3.56, p > .05); \text{CMIN/DF} = 0.594; \text{CFI} = 1.00; \text{NFI} = 0.98; \text{RMSEA} = 0.00 \text{ [90% CI} = 0.00, 0.89]; \text{SRMR} = 0.03; \text{PGFI} = 0.28; \text{PNFI} = 0.39 \]

**Notes:**
1. Insignificant paths are indicated by scattered lines.
2. ***p < 0.001, **p < 0.05, *p < 0.10
3. Some of the paths have been specified during the model testing in addition to the hypothesised paths.
4. Squared multiple variation (R^2) at opportunities to exchange = 14\%, at knowledge creation = 36\% and at social innovativeness = 36\%.
5a. Opportunities = opportunities to knowledge exchange; 50. Tie strength = structural social capital.

Source: AMOS output – Field Survey 2017

Although not hypothesised, a statistically significant positive path estimation was found pertaining to opportunities for knowledge exchange and social innovativeness relationship (\( b = 0.31, p < 0.01 \)). Hence, those social enterprise managers who indicated the higher availability of opportunities to knowledge exchange reported a higher level of social innovativeness. Finally, none of the control variables was significantly related to social innovativeness. Firm age showed a positive but non-significant standardised parameter estimation (\( b = 0.10, p > 0.05 \)) while firm size indicated a negative and non-significant standardised coefficient (\( b = -0.03, p > 0.05 \)).

The indirect effects of the model were also examined by performing a bias-corrected bootstrap (1000 samples at 95\% confidence interval). Accordingly, the following indirect effects were
confirmed by the test. Structural social capital and control variables together explained 36% of the variation in social innovativeness of social enterprises (Table 31). This explained variation was significantly greater than it was in the control variables only model.

Table 31: Indirect Effects: SSC and Social Innovativeness

<table>
<thead>
<tr>
<th>Indirect Effect</th>
<th>Standardised Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Tie strength → Knowledge creation</td>
<td>$b = 0.17, p &lt; 0.01$</td>
</tr>
<tr>
<td>Tie strength → Social innovativeness</td>
<td>$b = 0.17, p &lt; 0.01$</td>
</tr>
<tr>
<td>Opportunities to knowledge exchange → Social innovativeness</td>
<td>$b = 0.20, p &lt; 0.01$</td>
</tr>
</tbody>
</table>

Source: AMOS output – Field Survey 2017

This means that structural social capital indirectly influences social innovativeness through a full mediation by causally linked multiple moderators of opportunities to exchange and knowledge creation.

6.5.3 Inferential Statistical Analysis: Relational Social Capital and Social Innovativeness

Regression Analysis for Testing Hypotheses 4–6

The linear regression test results for hypotheses 4–6 are summarised in Table 32. There is a statistically significant positive relationship between trust and trustworthiness and opportunities for exchange [$F(1, 108) = 3.62, p = < 0.05, \text{R}^2 = 0.09$] and motivation to exchange [$F(1, 108) = 2.52, p = < 0.10, \text{R}^2 = 0.06$]. A unit increase in the level of trust and trustworthiness increases opportunities for exchange by 0.20 [$b = 0.20, t(108) = 2.77, p < 0.01$] and motivation to exchange by 0.16 [$b = 0.16, t(108) = 2.04, p < 0.05$]. These results confirm hypotheses 4 and 5. Motivation to exchange predicts knowledge creation [$F(1, 108) = 15.35, p = < 0.01, \text{R}^2 = 0.3$] and confirms that a unit increase in the level of motivation to exchange
Organisational Social Capital and Social Innovativeness

will result in a 0.4 units increase in the level of knowledge creation \( b = 0.4, t(108) = 6.66, p < 0.01 \). Therefore, the data support Hypothesis 6.

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Dependent Variables</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Opportunities for Exchange</td>
</tr>
<tr>
<td><strong>H4: Trust</strong></td>
<td>0.20***</td>
</tr>
<tr>
<td><strong>H5: Trust</strong></td>
<td>0.16**</td>
</tr>
<tr>
<td><strong>H6: Motivation to knowledge exchange</strong></td>
<td>0.39***</td>
</tr>
</tbody>
</table>

**Control Variables**

<table>
<thead>
<tr>
<th></th>
<th>Opportunities for Exchange</th>
<th>Motivation to Exchange</th>
<th>Knowledge Creation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firm age</td>
<td>−0.01</td>
<td>−0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Firm size</td>
<td>−1.50</td>
<td>0.00</td>
<td>−2.68</td>
</tr>
</tbody>
</table>

**Model Indices**

<table>
<thead>
<tr>
<th></th>
<th>Opportunities for Exchange</th>
<th>Motivation to Exchange</th>
<th>Knowledge Creation</th>
</tr>
</thead>
<tbody>
<tr>
<td>R²</td>
<td>0.09</td>
<td>0.07</td>
<td>0.30</td>
</tr>
<tr>
<td>Adjusted R²</td>
<td>0.07</td>
<td>0.04</td>
<td>0.28</td>
</tr>
<tr>
<td>F</td>
<td>3.62**</td>
<td>2.52*</td>
<td>15.35***</td>
</tr>
<tr>
<td>N</td>
<td>112</td>
<td>112*</td>
<td>112</td>
</tr>
</tbody>
</table>

* ***p ≤ 0.01, **p ≤ 0.05, *p ≤ 0.10

Source: SPSS output – Field Survey 2017

**Structural Model for RSC and Social Innovativeness Relationship**

The second nested model comparison was performed to examine the hypothesised relationships in the relational social capital and social innovativeness structural model. The hypothesised model was not statistically well fitted with data \( \chi^2 = 147.73, (11, 112), p < 0.01 \). Model improvements were tested and compared with this hypothesised model. Table 33 summarises the results of this nested model comparison. The first model comparison was between hypothesised model and control variables only model. Chi-square test differences confirmed that the hypothesised model was significantly better than the control variables only model.
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($\Delta \chi^2 = 106.49, \Delta df = 5, p < 0.01$). The hypothesised model was then compared with fully mediated modified model 1. The fully mediated modified model specified all the paths of the hypothesised model and a path from opportunities to knowledge exchange. The change in chi-square test revealed that this improved model fitted significantly better than the hypothesised model ($\Delta \chi^2 = 126.69, \Delta df = 1, p < 0.01$). Hence, fully mediated modified model 1 was retained as the best fitting model and was then compared with fully mediated modified model 2. Fully mediated modified model 2 included all the paths of fully mediated modified model 1 and a path from opportunities to knowledge exchange to social innovativeness. The change in chi-square test showed that fully mediated modified model 2 was significantly better than fully mediated modified model 1 ($\Delta \chi^2 = 9.91, \Delta df = 1, p < 0.01$).

Table 33: Nested Model Comparison: RSC and Social Innovativeness

<table>
<thead>
<tr>
<th>Model</th>
<th>$\chi^2 (df)$</th>
<th>$\Delta \chi^2 (\Delta df)$</th>
<th>RMSEA</th>
<th>AGFI</th>
<th>CFI</th>
<th>NFI</th>
<th>SRMR</th>
<th>Comparison</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypothesised Model</td>
<td>147.73(11)**</td>
<td>0.34</td>
<td>0.48</td>
<td>0.52</td>
<td>0.52</td>
<td>0.19</td>
<td></td>
<td>Control variables only model compared to hypothesised model</td>
</tr>
<tr>
<td>Control Variables Only Model</td>
<td>254.22(16)***</td>
<td>$-106.49(5)**$</td>
<td>0.37</td>
<td>0.28</td>
<td>0.16</td>
<td>0.17</td>
<td>0.30</td>
<td>Fully mediated modified model 1 compared to hypothesised model</td>
</tr>
<tr>
<td>Fully Mediated Modified Model 1</td>
<td>21.04(10)**</td>
<td>126.69(1)**</td>
<td>0.10</td>
<td>0.86</td>
<td>0.96</td>
<td>0.93</td>
<td>0.08</td>
<td>Fully mediated modified model 1 compared to hypothesised model</td>
</tr>
<tr>
<td>Fully Mediated Modified Model 2</td>
<td>11.13(9)</td>
<td>9.91(1)**</td>
<td>0.05</td>
<td>0.92</td>
<td>0.99</td>
<td>0.96</td>
<td>0.07</td>
<td>Fully mediated modified model 2 compared to fully mediated modified model 1</td>
</tr>
<tr>
<td>Fully Mediated Modified Model 3</td>
<td>10.70(8)</td>
<td>0.42(1)</td>
<td>0.06</td>
<td>0.91</td>
<td>0.99</td>
<td>0.97</td>
<td>0.07</td>
<td>Fully mediated modified model 3 compared to fully mediated modified model 2</td>
</tr>
<tr>
<td>Partially Mediated Model 1</td>
<td>8.72(7)</td>
<td>1.99(1)</td>
<td>0.05</td>
<td>0.92</td>
<td>0.99</td>
<td>0.97</td>
<td>0.07</td>
<td>Partially mediated model 1 compared to fully mediated modified model 2</td>
</tr>
<tr>
<td>Partially Mediated Model 2</td>
<td>8.67(6)</td>
<td>2.45(3)</td>
<td>0.06</td>
<td>0.90</td>
<td>0.99</td>
<td>0.97</td>
<td>0.07</td>
<td>Partially mediated model 2 compared to fully mediated modified model 2</td>
</tr>
</tbody>
</table>

***$p \leq 0.001$, **$p \leq 0.01$, *$p \leq 0.05$

**Note:** Sequence of model testing was guided by the existence of full vs. partial mediation models

Source: AMOS output – Field Survey 2017
Given the better fitness of fully mediated modified model 2, it was then compared with fully mediated modified model 3 and partially mediated models 1 and 2. Fully mediated modified model 3 included all the paths of fully mediated modified model 2 and a direct path from motivation to knowledge exchange and social innovativeness. Partially mediated model 1 included all the paths of fully mediated modified model 3 and a direct path from knowledge creation to social innovativeness. Partially mediated model 2 specified all the paths of partially mediated model 1 and a direct path from relational social capital and social innovativeness. Chi-square test differences showed that fully mediated modified model 3 and partially mediated models 1 and 2 were not significantly better than fully mediated modified model 2 and were less parsimonious. Therefore, fully mediated modified model 2 was retained as the better fitting model and interpreted as follows to examine the hypothesised relationships (Figure 28).

Examination of the standardised parameter estimates indicated that two out of three hypothesised relationships were statistically significant and in the predicted directions (see Figure 28) when controlled variables were accounted for. Specifically, hypotheses 4 and 5 positively relate trust and trustworthiness to opportunities to knowledge exchange (H4) and motivation to knowledge exchange (H5). The statistically insignificant parameter estimate \( b = 0.04, p > 0.05 \) indicated that data do not support Hypothesis 4. Results confirmed Hypothesis 5 since a statistically significant parameter was found in relation to trust and trustworthiness and motivation to exchange relationship \( b = 0.17, p < 0.05 \). This means that the higher the trust and trustworthiness, the higher the motivation to knowledge exchange. A marginally significant parameter estimate was found for the paths between motivation to exchange and knowledge creation \( b = 0.22, p < 0.10 \). Therefore, higher motivation to knowledge exchange leads to higher knowledge creation.
Although not hypothesised, a statistically significant parameter estimate was found pertaining to the path from motivation to exchange to opportunities to knowledge exchange ($b = 0.97$, $p < 0.01$). The higher the level of motivation to exchange, the higher will be the opportunities to knowledge exchange. The indirect effects of the model were examined by performing a bias-corrected bootstrap (1000 samples at 95% confidence interval). Accordingly, the following indirect effects were confirmed by the test (Table 34). Relational social capital and control variables together explained 36% of the variation in social innovativeness of social enterprises. This explained variation was significantly greater than it was in the control variables only model.
Table 34: Indirect Effects: RSC and Social Innovativeness

<table>
<thead>
<tr>
<th>Indirect Effect</th>
<th>Standardised Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Trust → Knowledge creation</td>
<td>$b = 0.10, p &lt; 0.05$</td>
</tr>
<tr>
<td>Trust → Social innovativeness</td>
<td>$b = 0.06, p &lt; 0.01$</td>
</tr>
<tr>
<td>Motivation to knowledge exchange → Social innovativeness</td>
<td>$b = 0.14, p &lt; 0.05$</td>
</tr>
<tr>
<td>Opportunities to knowledge exchange → Social innovativeness</td>
<td>$b = 0.20, p &lt; 0.01$</td>
</tr>
</tbody>
</table>

Source: AMOS output – Field Survey 2017

Accordingly, results confirm that relational social capital indirectly influences social innovativeness of social enterprises through the serially linked motivation to knowledge exchange, opportunities to exchange and knowledge creation.

6.5.4 Inferential Statistical Analysis: Cognitive Social Capital and Social Innovativeness

Regression Analysis for Testing Hypotheses 7–9

The results of the regression analysis for testing hypotheses 7–9 are summarised in Table 35.

Table 35: Regression Test Summary Results for Hypotheses 7–9

<table>
<thead>
<tr>
<th>Independent Variables</th>
<th>Opportunities for Exchange</th>
<th>Ability to Exchange and Combine</th>
<th>Knowledge Creation</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>H7: Shared vision</strong></td>
<td>0.61***</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>H8: Shared vision</strong></td>
<td></td>
<td>0.70***</td>
<td></td>
</tr>
<tr>
<td><strong>H9: Ability to exchange and combine</strong></td>
<td></td>
<td></td>
<td>0.48***</td>
</tr>
</tbody>
</table>

Control Variables

<table>
<thead>
<tr>
<th></th>
<th>Opportunities for Exchange</th>
<th>Ability to Exchange and Combine</th>
<th>Knowledge Creation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firm age</td>
<td>−0.00</td>
<td>−0.00</td>
<td>0.00</td>
</tr>
<tr>
<td>Firm size</td>
<td>0.00</td>
<td>0.00</td>
<td>0.00</td>
</tr>
</tbody>
</table>

Model Indices

<table>
<thead>
<tr>
<th></th>
<th>Opportunities for Exchange</th>
<th>Ability to Exchange and Combine</th>
<th>Knowledge Creation</th>
</tr>
</thead>
<tbody>
<tr>
<td>$R^2$</td>
<td>0.36</td>
<td>0.49</td>
<td>0.36</td>
</tr>
<tr>
<td>Adjusted $R^2$</td>
<td>0.34</td>
<td>0.48</td>
<td>0.34</td>
</tr>
<tr>
<td>$F$</td>
<td>20.32***</td>
<td>34.43***</td>
<td>20.41***</td>
</tr>
<tr>
<td>$N$</td>
<td>112</td>
<td>112*</td>
<td>112</td>
</tr>
</tbody>
</table>

***$p ≤ 0.001$, **$p ≤ 0.01$, *$p ≤ 0.05$

Source: SPSS output – Field Survey 2017
Shared vision predicts both opportunities for exchange \( F(1, 108) = 20.32, \ p = < 0.01, \ R^2 = 0.36 \) and ability to exchange and combine \( F(1, 108) = 34.44, \ p = < 0.01, \ R^2 = 0.48 \). A unit increase in the level of shared vision will create an increase in opportunities for exchange by 0.61 \( b = 0.61, \ t(108) = 7.51, \ p < 0.01 \). Also, one unit change in cognitive social capital will increase the ability to exchange and combine by 0.70 units \( b = 0.70, \ t(108) = 9.79, \ p < 0.01 \). These results confirm hypotheses 7 and 8. The relationship between ability to exchange and combine and knowledge creation is positive \( F(1, 108) = 20.41, \ p = < 0.01, \ R^2 = 0.36 \) and a unit increase in the level of ability to exchange and combine increases knowledge creation by 0.48 units \( b = 0.48, \ t(108) = 7.70, \ p < 0.01 \). Therefore, the data supports Hypothesis 9.

**Structural Model for CSC and Social Innovativeness Relationship**

The hypothetical structural model of the cognitive social capital and social innovativeness relationship was not statistically well fitted with the data initially \( \chi^2 = 116.81, \ (11, \ 112), \ p < 0.01 \). This model was compared with a series of nested models to examine the better fitting model for the hypothesised relationships (Table 36). The hypothetical model was first compared with the control variables only model. Chi-square test differences showed that the hypothesised model is significantly better than the control variables only model \( \Delta \chi^2 = 215.94, \ \Delta df = 5, \ p < 0.01 \). The second comparison was between fully mediated modified model 1 and the hypothesised model. The fully mediated modified model 1 specified all the paths of the hypothesised model and a direct path from opportunities to knowledge exchange to abilities to knowledge exchange. The change in chi-square revealed that this alternative model is a better fit than the hypothesised model \( \Delta \chi^2 = 92.89, \ \Delta df = 1, \ p < 0.01 \), hence this model was retained as the best fitting model for further analysis.
This improved model was then compared with fully mediated modified model 2, which included all the paths of fully mediated modified model 1 and a direct path from opportunities to knowledge exchange and social innovativeness. A chi-square test of difference confirmed that fully mediated modified model 2 is significantly better than model 1 ($\Delta \chi^2 = 9.91$, $\Delta df = 1$, $p < 0.01$). Therefore, this new model was retained as the better fitting model.

Fully mediated modified model 2 was compared against fully mediated modified model 3 and partially mediated model 1. Fully mediated modified model 3 specified all the paths of model 2 and a direct path from abilities to knowledge exchange to social innovativeness. Partially mediated model 1 included all the paths of fully mediated modified model 3 and a direct path from shared vision to knowledge creation. The difference of the Chi-square test confirmed that

---

### Table 36: Nested Model Comparison: CSC and Social Innovativeness Relationship

<table>
<thead>
<tr>
<th>Model</th>
<th>$\chi^2$ ($df$)</th>
<th>$\Delta \chi^2$ ($\Delta df$)</th>
<th>RMSEA</th>
<th>AGFI</th>
<th>CFI</th>
<th>NFI</th>
<th>SRMR</th>
<th>Comparison</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypothesised Model</td>
<td>116.81(11)***</td>
<td></td>
<td>0.29</td>
<td>0.56</td>
<td>0.71</td>
<td>0.70</td>
<td>0.12</td>
<td></td>
</tr>
<tr>
<td>Control Variables Only Model</td>
<td>332.75(16)***</td>
<td>$-215.94(5)$***</td>
<td>0.42</td>
<td>0.12</td>
<td>0.13</td>
<td>0.13</td>
<td>0.36</td>
<td>Control variables only model compared to hypothesised model</td>
</tr>
<tr>
<td>Fully Mediated Modified Model 1</td>
<td>23.92(10)***</td>
<td>92.89(1)***</td>
<td>0.11</td>
<td>0.86</td>
<td>0.96</td>
<td>0.94</td>
<td>0.07</td>
<td>Fully mediated modified model 1 compared to hypothesised model</td>
</tr>
<tr>
<td>Fully Mediated Modified Model 2</td>
<td>14.01(9)</td>
<td>9.91(1)***</td>
<td>0.07</td>
<td>0.90</td>
<td>0.99</td>
<td>0.96</td>
<td>0.05</td>
<td>Fully mediated modified model 2 compared to fully mediated modified model 1</td>
</tr>
<tr>
<td>Fully Mediated Modified Model 3</td>
<td>12.45(8)</td>
<td>0.57(1)</td>
<td>0.08</td>
<td>0.89</td>
<td>0.99</td>
<td>0.97</td>
<td>0.05</td>
<td>Fully mediated modified model 3 compared to fully mediated modified model 2</td>
</tr>
<tr>
<td>Partially Mediated Model 1</td>
<td>6.35(7)</td>
<td>7.67(2)**</td>
<td>0.00</td>
<td>0.94</td>
<td>1.00</td>
<td>0.98</td>
<td>0.03</td>
<td>Partially mediated model 1 compared to fully mediated modified model 2</td>
</tr>
<tr>
<td>Partially Mediated Model 2</td>
<td>1.32(6)</td>
<td>5.03(1)**</td>
<td>0.00</td>
<td>0.98</td>
<td>1.00</td>
<td>0.99</td>
<td>0.02</td>
<td>Partially mediated model 2 compared to partially mediated model 1</td>
</tr>
</tbody>
</table>

***$p \leq 0.001$, **$p \leq 0.01$, *$p \leq 0.05$

**Note:** Sequence of model testing was guided by the existence of full vs. partial mediation models

Source: AMOS output – Field Survey 2017
fully mediated modified model 3 ($\Delta \chi^2 = 0.57, \Delta df = 1, p > 0.05$) was not a significantly better fitting model than fully mediated modified model 2, while partially mediated model 1 ($\Delta \chi^2 = 7.67, \Delta df = 2, p < 0.05$) was a significantly better fitting model.

Given the better fitness of partially mediated model 1, it was compared with partially mediated model 2, which included all the paths of partially mediated model 1 and a direct path from shared vision to social innovativeness. Chi-square test results confirmed that partially mediated model 2 is the best fitting and more parsimonious model ($\Delta \chi^2 = 5.03, \Delta df = 1, p < 0.05$). Therefore, this model was retained for further analysis and is depicted in Figure 29.

**Figure 29: Tested Model for CSC and Social Innovativeness Relationship**

**Fit Indices:**

$\chi^2 (7,112) = 6.34, p > .05$; CFI = 1.00; NFI = 0.98; RMSEA = 0.00 [90% CI = 0.00, 0.11]; SRMR = 0.04; PGFI = 0.25; PNFI = 0.33

**Notes:**
1 Insignificant paths are indicated by scattered lines.
2 $***p<0.001, ** p<0.05, *p<0.10$
3 Some of the paths have been specified during the model testing in addition to the hypothesised paths.
4 Squared multiple variation ($R^2$) at opportunities to exchange = 36%; at abilities to exchange = 78%; at knowledge creation = 43% and at social innovativeness = 36%.
5 $^a$Opportunities = opportunities to knowledge exchange; $^b$Ability = ability to knowledge exchange and combine; $^c$Shared vision = cognitive social capital.

Source: AMOS output – Field Survey 2017
Examination of the standardised parameter estimates indicated that two out of the three hypothesised relationships were significant and in the predicted directions (see Figure 29) when the controlled variables were accounted for. Specifically, Hypothesis 7 positively relates shared vision to opportunities to knowledge exchange. The statistically significant parameter estimate ($b = 0.60, p < 0.01$) indicated support for Hypothesis 7. Those social enterprise managers who indicated higher shared vision reported more opportunities for knowledge exchange. Hypothesis 8 positively related shared vision to abilities to exchange and combine. A statistically significant parameter estimate was found for the path between shared vision and abilities to knowledge exchange and combine ($b = 0.29, p < 0.05$). The higher the level of shared vision, the higher the level of abilities to knowledge exchange and combine. A statistically significant parameter estimate was not found for the paths between abilities to knowledge exchange and combine ($b = 0.14, p > 0.05$). Therefore, Hypothesis 9 was supported.

Although not hypothesised, three new statistically significant path estimations were found in this partially mediated model 1. Significant, positive parameter estimates were found for paths from opportunities to knowledge exchange to abilities to knowledge exchange and combine ($b = 0.67, p < 0.01$); for the path from shared vision to knowledge creation ($b = 0.27, p < 0.01$); and for the path from shared vision to social innovativeness ($b = 0.25, p < 0.05$). The explained variance in the social innovativeness was greater in partially mediated model 1 than in the control variables only model. Cognitive social capital and control variables together explain 36% of the variation in social innovativeness. The indirect effects of the model were examined by performing a bias-corrected bootstrap (1000 samples at 95 per cent confidence interval). Accordingly, the following indirect effects were confirmed by the test (Table 37).
Table 37: Indirect Effects: CSC and Social Innovativeness

<table>
<thead>
<tr>
<th>Indirect Effect</th>
<th>Standardised Coefficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Shared vision → Abilities to knowledge exchange and combine</td>
<td>$b = 0.41, p &lt; 0.01$</td>
</tr>
<tr>
<td>Shared vision → Knowledge creation</td>
<td>$b = 0.23, p &lt; 0.01$</td>
</tr>
<tr>
<td>Shared vision → Social innovativeness</td>
<td>$b = 0.35, p &lt; 0.01$</td>
</tr>
</tbody>
</table>

Source: AMOS output – Field Survey 2017

Indirect effects between opportunities to knowledge exchange and knowledge creation ($b = 0.07, p > 0.05$), opportunities to knowledge exchange and social innovativeness ($b = 0.07, p > 0.05$) and abilities to knowledge exchange and combine and social innovativeness ($b = 0.05, p > 0.05$) were not statistically significant.

6.5.5 Integrated Model of Organisational Social Capital and Social Innovativeness

The integrated structural model is the combination of all the three OSC dimension models. The initial integrated structural model did not fit data well ($\chi^2 = 268.18, df = 24, p < 0.01; \chi^2/df = 11.17; \text{RMSEA} = 0.30 \ [90\% \ CI = 0.28, 0.36]; \text{CFI} = 0.56; \text{AGFI} = 0.39; \text{NFI} = 0.54; \text{SRMR} = 0.21$). Utilising a chi-square test of difference (Bentler & Bonett, 1980), the hypothesised model was compared with several nested models (Table 38).

The first comparison showed that the hypothesised model provided a significantly better fit than the control variables only model ($\Delta\chi^2 = 233.30, \Delta df = 9, p < 0.01$). Given less fit in the hypothesised model with the data, three new theoretically valid and acceptable paths were added based on the modification indices, one at a time as nested models (fully mediated modified models 1–3). Accordingly, regression paths from opportunities to exchange to motivation to exchange (fully mediated modified model 1) and abilities to exchange and combine (fully mediated modified model 2), and from opportunities to exchange and social
innovativeness (fully mediated modified model 3), were added in addition to the hypothesised relationships.

Table 38: Nested Model Comparison – Integrated Model of OSC and Social Innovativeness

<table>
<thead>
<tr>
<th>Model</th>
<th>χ² (df)</th>
<th>Δχ²(Δdf)</th>
<th>RMSEA</th>
<th>AGFI</th>
<th>CFI</th>
<th>NFI</th>
<th>SRMR</th>
<th>Comparison Sequence</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hypothesised Model</td>
<td>268.18</td>
<td>-</td>
<td>0.30</td>
<td>0.39</td>
<td>0.56</td>
<td>0.54</td>
<td>0.21</td>
<td>–</td>
</tr>
<tr>
<td>Control Variables Only Model</td>
<td>501.48</td>
<td>233.30</td>
<td>0.36</td>
<td>0.10</td>
<td>0.13</td>
<td>0.14</td>
<td>0.35</td>
<td>Control variables only model compared to hypothesised model</td>
</tr>
<tr>
<td>Fully Mediated Modified Model 1</td>
<td>141.49</td>
<td>126.70</td>
<td>0.22</td>
<td>0.65</td>
<td>0.80</td>
<td>0.76</td>
<td>0.12</td>
<td>Fully mediated modified model 1 compared to hypothesised model</td>
</tr>
<tr>
<td>Fully Mediated Modified Model 2</td>
<td>48.60</td>
<td>219.59</td>
<td>0.10</td>
<td>0.82</td>
<td>0.95</td>
<td>0.92</td>
<td>0.06</td>
<td>Fully mediated modified model 2 compared hypothesised model</td>
</tr>
<tr>
<td>Fully Mediated Modified Model 3</td>
<td>38.69</td>
<td>229.59</td>
<td>0.09</td>
<td>0.84</td>
<td>0.97</td>
<td>0.93</td>
<td>0.04</td>
<td>Fully mediated modified model 3 compared to hypothesised model</td>
</tr>
<tr>
<td>Partially Mediated Model 1</td>
<td>29.74</td>
<td>8.95</td>
<td>0.08</td>
<td>0.85</td>
<td>0.98</td>
<td>0.95</td>
<td>0.03</td>
<td>Partially mediated model 1 compared to fully mediated modified model 3</td>
</tr>
<tr>
<td>Partially Mediated Model 2</td>
<td>28.98</td>
<td>9.71</td>
<td>0.09</td>
<td>0.84</td>
<td>0.98</td>
<td>0.95</td>
<td>0.03</td>
<td>Partially mediated model 2 compared to fully mediated modified model 3</td>
</tr>
<tr>
<td>Partially Mediated Model 3</td>
<td>23.93</td>
<td>14.76</td>
<td>0.09</td>
<td>0.84</td>
<td>0.98</td>
<td>0.96</td>
<td>0.03</td>
<td>Partially mediated model 3 compared to fully mediated modified model 3</td>
</tr>
</tbody>
</table>

***p ≤ 0.001, **p ≤ 0.01, *p ≤ 0.05

Note: Sequence of model testing was guided by the existence of full vs. partial mediation models

Source: AMOS output – Field Survey 2017

The fully mediated modified models 1–3 were then compared with the hypothesised model. The change in chi-square test (Table 41) showed that this alternative model 3 was significantly better than the hypothesised model (Δχ² = 229.59, Δdf = 2, p < 0.01); it fit the data better and was more parsimonious. Hence, fully mediated modified model 3 was retained (χ² = 38.69, df = 21, p > 0.05; χ²/df = 1.84; RMSEA = 0.09 [90% CI = 0.04, 0.13]; CFI = 0.97; AGFI = 0.84; NFI = 0.93; SRMR = 0.04). This model appeared to best fit the data and hence, it was compared with partially mediated models 1–3.

The partially mediated model 1 shown in Table 38 specified the paths in fully mediated modified model 3 and direct paths from remaining abilities to knowledge exchange and motivation to knowledge exchange to social innovativeness. Partially mediated model 2 included the same paths as partially mediated model 1 and direct paths from OSC dimensions
Organisational Social Capital and Social Innovativeness

to knowledge creation. Partially mediated model 3 specified all the paths in partially mediated model 2 and direct effects from OSC to social innovativeness.

Changes in chi-square tests (Table 38) revealed that partially mediated models 1 and 2 were not significantly better than fully mediated modified model 3 and were less parsimonious. Yet, this nested model comparison indicated that partially mediated model 3 better fits the data and is more parsimonious ($\Delta \chi^2 = 14.76, \Delta df = 8, p < 0.01$) than fully mediated modified model 3 ($\chi^2 = 23.93, df = 13, p > 0.01; \chi^2/df = 1.84; \text{RMSEA} = 0.09 [90\% \ CI = 0.03, 0.14]; \text{CFI} = 0.98; \text{AGFI} = 0.84; \text{NFI} = 0.96; \text{SRMR} = 0.03$). Hence, partially mediated model 3 was retained as the best fit and is interpreted below to examine the hypothesised relationships.

Examination of the standardised parameter estimates indicated that five of the nine hypothesised relationships were significant and in the predicted directions (see Figure 30) when control variables were accounted for. Hypothesis 1 positively related tie strength to opportunities to exchange. The statistically significant parameter estimates ($b = 0.20, p < 0.05$) indicated support for Hypothesis 1. This indicates that stronger tie strength means higher opportunities to knowledge exchange.

Hypothesis 2 was not supported as a statistically significant parameter estimate could not be obtained for the opportunities to knowledge exchange and knowledge creation relationship ($b = 0.23, p > 0.05$). Hypothesis 3 positively related knowledge creation to social innovativeness. A statistically significant parameter estimate was found ($b = 0.32, p < 0.01$), indicating the support for Hypothesis 3. Social enterprise managers who indicated a higher level of knowledge creation reported a higher level of social innovativeness. Hypotheses 4 and 5 positively relate trust and trustworthiness to opportunities to exchange and motivation to exchange, respectively. A statistically significant relationship could not be found for any of
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these relationships and hence they do not provide support for hypotheses 4 ($b = 0.09, p > 0.05$) and 5 ($b = 0.03, p > 0.05$).

Figure 30: Results of the Integrated Structural Model: OSC and Social Innovativeness

Fit Indices:

$\chi^2 = 23.93$, df = 13, $p > 0.01$; $\chi^2$/df = 1.84; RMSEA = 0.09 [90% CI = 0.03, 0.14]; CFI = 0.98; AGFI = 0.84; NFI = 0.96; SRMR = 0.03

Notes:

1. **p<0.01, *p<0.05, *p<0.10; all the regression path coefficients are in standardised form.
2. Insignificant paths have been removed from the model.
3. Some of the paths have been specified during the model testing in addition to the hypothesised paths.
4. None of the paths related to trust (relational social capital) are statistically significant and hence not shown in this model.
5. Tie strength = structural social capital; Shared vision = cognitive social capital; Opportunities = opportunities to knowledge exchange; Motivation = motivation to knowledge exchange; Ability = ability to knowledge exchange and combine.

Source: AMOS output – Field Survey 2017
Hypothesis 6 was not supported given the statistically insignificant parameter estimate found on the relationship between motivation to knowledge exchange and knowledge creation ($b = 0.16, p > 0.05$). Hypotheses 7 and 8 were supported as statistically significant parameter estimates were found for the paths between shared vision and opportunities to exchange ($b = 0.51, p < 0.01$) and ability to exchange and combine ($b = 0.29, p < 0.01$). Social enterprises with a strong shared vision reported more opportunities to knowledge exchange among organisational members and higher abilities to knowledge exchange and combine.

Hypothesis 9 positively related abilities to knowledge exchange and combine to knowledge creation. A statistically significant parameter estimate could be found on this path, supporting Hypothesis 9 ($b = 0.57, p < 0.01$). This confirms that those social enterprises with members who have higher abilities to knowledge exchange and combine reported higher knowledge creation levels.

Although not hypothesised, five new statistically significant parameter estimates were found in partially mediated model 3. Statistically significant, positive parameter estimates were found for paths from shared vision to knowledge creation ($b = 0.27, p < 0.01$) and to social innovativeness ($b = 0.25, p < 0.05$). Further, strong, positive parameter estimates were found for the paths from opportunities to knowledge exchange to abilities to knowledge exchange and combine ($b = 0.67, p < 0.01$) and to motivation to knowledge exchange ($b = 0.83, p < 0.01$). A path on opportunities to knowledge exchange and social innovativeness was also found with a statistically significant parameter estimation ($b = 0.44, p < 0.05$).

In addition, none of the control variables were associated with social innovativeness ($p > 0.05$). The explained variance in the social innovativeness was greater in partially mediated modified model 3 than in the control variables only model. Partially mediated model 3 explained 41% of opportunities to exchange; 70% of motivation to knowledge creation; 78% of abilities to
knowledge exchange and combine; 44% of knowledge creation and 38% of social innovativeness.

6.6 SYNTHESISING THE QUANTITATIVE ANALYSIS

Hypothesis testing was carried out with simple linear regression tests, tests and in three different structural models to ensure the robustness of empirical testing and validation of the hypothesised model. Table 39 summarises the results of the three steps accordingly, as a comparison to the final integrated model testing.

<table>
<thead>
<tr>
<th>Hypotheses</th>
<th>Linear Regression Tests</th>
<th>Individual SEM Models</th>
<th>Integrated SEM Model Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: Tie strength is positively related to opportunities for knowledge exchange</td>
<td>Supported</td>
<td>Supported</td>
<td>Supported</td>
</tr>
<tr>
<td>H2: Opportunities for knowledge exchange are positively related to knowledge creation</td>
<td>Supported</td>
<td>Supported</td>
<td>Not supported</td>
</tr>
<tr>
<td>H3: Knowledge creation is positively related to social innovativeness</td>
<td>Supported</td>
<td>Supported</td>
<td>Supported</td>
</tr>
<tr>
<td>H4: Trust is positively related to opportunities for knowledge exchange</td>
<td>Supported</td>
<td>Not supported</td>
<td>Not supported</td>
</tr>
<tr>
<td>H5: Trust is positively related to motivation to exchange</td>
<td>Supported</td>
<td>Supported</td>
<td>Not supported</td>
</tr>
<tr>
<td>H6: Motivation to exchange is positively related to knowledge creation</td>
<td>Supported</td>
<td>Marginally supported</td>
<td>Not supported</td>
</tr>
<tr>
<td>H7: Shared vision is positively related to opportunities for knowledge exchange</td>
<td>Supported</td>
<td>Supported</td>
<td>Supported</td>
</tr>
<tr>
<td>H8: Shared vision is positively related to ability to knowledge exchange and combine</td>
<td>Supported</td>
<td>Supported</td>
<td>Supported</td>
</tr>
<tr>
<td>H9: Ability to knowledge exchange and combine is positively related to knowledge creation</td>
<td>Supported</td>
<td>Not supported</td>
<td>Supported</td>
</tr>
</tbody>
</table>

Source: Researcher

189
All the nine hypothesised relationships were supported by data in the individual regression tests. Only five out of nine hypothesised relationships were supported in the integrated structural model on OSC and social innovativeness. These differences may result from the small sample size of the study.

In addition to these statistically significant relationships, nested model comparisons uncovered five new relationships. These new relationships change the hypothesised model in three ways by demonstrating (1) the interactions among the opportunity-motivation-ability factors; (2) a direct effect from opportunities to knowledge exchange to innovativeness; and (3) a direct effect of cognitive social capital on innovativeness.

Incorporating the hypothesised paths and new relationships, the integrated model with the respective significance and non-significance of paths is depicted in Figure 31. Hypothesis testing revealed that structural social capital indicated by tie strength and cognitive social capital indicated by shared vision indirectly influence social innovativeness through serially linked opportunities to exchange, abilities to exchange and knowledge creation. Cognitive social capital (shared vision) has an indirect effect on social innovativeness through abilities to knowledge exchange and combine and knowledge creation. In addition, shared vision directly influences knowledge creation and social innovativeness. Relational social capital has no effect on opportunity-motivation-ability factors or knowledge creation. Although opportunity-motivation-ability were hypothesised as direct effects on knowledge creation, only the ability to knowledge exchange and combine has a direct relationship with knowledge creation.
Opportunities to knowledge exchange have an indirect influence on knowledge creation through abilities to knowledge exchange. Accordingly, opportunity-motivation-ability factors tend to reflect on an interrelationship among the factors. Opportunities to knowledge creation has a direct relationship with social innovativeness. The detailed discussion of these relationships is found in Chapter 8.

6.7 SUMMARY

The central objective of the thesis was to examine the ways OSC, opportunity-motivation-ability factors and knowledge creation explain social innovativeness of Australian social enterprises. This called for a quantitative research design. Yet, given the merits of a mixed method approach, this thesis designed an approach which is predominantly quantitative but
explained by qualitative illustrations. The quantitative analysis of this thesis was performed in this chapter. The nested model comparisons performed identified five statistically significant hypothesised relationships coupled with five new statistically significant relationships. The analysis together identifies that structural and cognitive social capital indirectly influence social innovativeness of social enterprises through the sequential mediation of opportunities and abilities to knowledge exchange, and knowledge creation. Cognitive social capital was found to have a direct effect on both knowledge creation and innovativeness. Relational social capital has no relationship with opportunity-motivation-ability factors, knowledge creation and social innovativeness. Opportunity-motivation-ability factors interact with each other and opportunities to knowledge exchange is the key enabler of this interaction. The next chapter focuses on presenting the illustrative examples of social innovativeness of three award-winning Australian social enterprises to explain the findings for sub-research question 2.
CHAPTER 7: ILLUSTRATIVE EXAMPLES OF SOCIAL INNOVATION IN AUSTRALIAN SOCIAL ENTERPRISES

7.1 OBJECTIVE

The objective of this chapter is to present three illustrative examples of social innovativeness in Australian social enterprises following the methods explained in Chapter 4. Accordingly, the business models of these three social enterprises (which each won the Social Enterprise Innovation Award 2016 of Social Traders of Australia) are presented initially. This will be followed by an analysis and a discussion on the key features of innovative organisational culture of the social enterprises.

7.2 PROFILES OF CASE SOCIAL ENTERPRISES

The following section outlines the business models of three Social Enterprise Innovation Award 2016 winning social enterprises: 40K PLUS, Nundah Community Enterprises Cooperative and Sprouts Venture. The value proposition, key activities, customer segments, customer relationships, channels, cost structure, revenue streams, key partners and key resources are identified accordingly as a basis for the next level analysis.

7.2.1 40K PLUS

40K PLUS\textsuperscript{18} is an Australian social enterprise mainly serving Asian markets with a social mission to create access “to quality learning to restricted environments anywhere on the planet” (40K PLUS, 2017a). The formal launch of the social enterprise was in October 2010. During a holiday to India in 2005, Australians Clary Castrission and Karyn Avery witnessed the devastating impact of extreme poverty affecting Indian village children. They believed that education would open opportunities to change these children’s lives. They found that only
$40,000 was needed to build a school for a community outside Bangalore and, after five years, with $40,000 the Banyan School was opened for these devastated children with the support of project partner, the Lovedale Foundation. After a series of initiatives taken to improve the model, today 40K PLUS is a social enterprise where children’s parents pay around AUD2–4 for children to attend a class. CEO and co-founder Clary Castrission interprets this philosophy of “give a man a fish, teach a man to fish” even further: the idea is to “sell the man the fishing rod” (40K PLUS, 2017a).

This social enterprise initiative is a combination of three main organisational entities. They are the 40K PLUS Foundation, 40K PLUS Pods and 40K Globe. 40K PLUS Foundation is a social business foundation which incubates 40K PLUS Pods and facilitates additional funding mechanisms. 40K PLUS Pods is a social enterprise addressing the previously mentioned social mission. 40K Globe is a program which creates an opportunity for young Australians to undergo field training in a social enterprise context, mainly in India where 40K PLUS Pods are operating. 40K PLUS was the Social Enterprise Innovation winner for 2016 at the Annual Social Enterprise Awards 2016 of Social Traders (2017).

7.2.2 Nundah Community Enterprises Co-operative

Nundah Community Enterprises Co-operative (NCEC) is a not-for-profit organisation established as a co-operative business model established with the aim of creating sustainable employment and training opportunities for people with mental illness, learning difficulty or intellectual disability. Their motto says, “We don’t employ people to make coffee; we make coffee so we can employ people”. NCEC was formed in 1998. They provide employment and training opportunities to people with intellectual disability by running two main businesses, Espresso Train Café and Catering, and NCEC Parks and Maintenance. NCEC was established as a non-trading cooperative without a share capital. As a result, profits are reinvested in order
to support business activities and develop services and environments for workers. Profits
distribution to members is restricted as this is considered to be the best model of reaching the
established mission of “providing sustainable employment opportunities to members with
learning difficulties” (Business Council of Co-operatives and Mutuals, 2014, p. 9). Reflecting
on an important feature and the depth of scope of the social enterprise mission, NCEC is
grounded on a triple bottom line concept. NCEC decisions and initiatives target economic,
social and environmental aspects of the firm’s mission. According to the NCEC website:

our support of disadvantaged workers, sourcing goods (where we can) seasonally
and directly from local farmers and an investment in P.V. solar which sees NCEC
produce more than 2/3 of the electricity it uses. (NCEC, 2017)

The small beginnings of NCEC have resulted in an annual turnover of around $580,000, and
80% of the income is derived from trading from Espresso Train Catering and NCEC Parks,
which maintains 30 parks and public spaces under social procurement contracts from the
Brisbane City Council and Queensland Government. They have been awarded with the Social
Enterprise Innovation Award and Australian Social Enterprise of the Year Award in 2016 and
2015 respectively from Social Traders of Australia.

7.2.3 Sprout Ventures

Sprout Ventures is a social enterprise providing an enterprise solution to early community and
economic development in greenfield areas of Western Australia. This novel solution has been
recognised at the Annual Social Enterprise Awards 2016 as the Social Enterprise Innovation
of the Year. Sprout Ventures’ motto is “A little place for a little while”.

Sprout hubs are community-driven pop-up hubs aiming to develop early community facilities
delivering platforms such as relaxed meeting facilities, co-working spaces, and networking and
capability development opportunities for small business and not-for-profit organisations. The form taken by this different business solution is explained by Latchy Ritchie, the managing director at a temporary facility:

\[
\text{we are a temporary facility, so our whole purpose and goal while we’re there is to seed community activation and help establish local groups, and then we’ll eventually get replaced by a permanent community facility.} \quad (\text{Smerdon, 2015})
\]

Sprout Ventures is a family-owned Certified-B Corporation since 2015 which uses the power of business to solve social and environmental problems. Sprout Ventures was certified by the non-profit B-Lab\textsuperscript{19} to meet rigorous standards of social and environmental performance, accountability and transparency. This social enterprise helps property developers, owners and managers to create real community around their established structures. Their mechanism is place activation and management services and working with residents and tenants.

### 7.3 KEY FEATURES OF THE BUSINESS MODELS

#### 7.3.1 Business Model – 40K PLUS

The key features of the business model are summarised in Table 40. 40K PLUS Pods is serving a mass market of children with less quality education opportunities due to extreme poverty in the Asian context (currently mainly in India). Their value proposition is composed of elements such as newness in the service they offer, with a customisation to the serving community, supportive design at an affordable price, accessibility and usability. The “gamified 40K PLUS App” accumulates world standard subject contents and facilitates with technology to make it a self-pursuing educational tool. In addition, the learning content is culturally sensitive, and these underprivileged children can use the Android application in offline mode as a solution to less wi-fi availability.
### Table 40: Key Features of the Business Model – 40K PLUS

<table>
<thead>
<tr>
<th>Key Partners</th>
<th>Key Activities</th>
<th>Key Resources</th>
</tr>
</thead>
</table>
- Delivering the after-school classes on numeracy, life skills and literacy  
- Maintenance of technology platform for learning app | - 40K Plus Pods at rented spaces  
(a village room)  
- 40K plus brand  
- Dedicated staff  
- Technology platform – Learning App  
- Android tablets  
- Sourced learning content materials |

**Education Partners**
- Bloom Collective, Fantastic Phonics, Book Box, Genki English, Learning Matters

**Technology Partners**
- Atlassian, CARMATEC

**Value Proposition**
- Learning content sourced from world context to match with local curriculum
- Culturally sensitive content
- Technology platform available offline and can use to progress at children’s own pace
- Offered every week day after school
- Facilitated by a local

**Customer Segments**
- Rural government school students have little access to English yet learning it is important for children to get a better job, and enable more choices
- Very few good, qualified teachers want to teach in villages
- To train a teacher properly requires a 15-year commitment

**Channels**
- 40K Plus Pods in the villages
- Website
- 40K Globe

**Customer Relationships**
- Strong relationships between customers and the business (personal level) have resulted in improved standards of the children

**Cost Structure**
- Payments to the CEO
- Salaries of the teachers
- Charges for rented spaces
- Office costs
- Teacher training
- Program improvements
- Technology platform improvements – Future versions of the Android Learning App

**Revenue Streams**
- Market dependent price: Earnings from student fee – $4 from each student of each pod
- Any philanthropic donations
- Additional funding from 40K Globe, which trains Australian university students
- Fundraising by 40K Globe students: e.g. $240,000 in 2015
- Other fundraising events: e.g. Big Night Out Sydney and Adelaide
This internationally sourced content with offline accessibility is an innovative design of the service, which is offered through a facilitator hired from a local village and offered at an affordable price. This program design aims to maximise learning outcomes for a multi-age, multi-pace and multi-level environment.

Village children can access 40K PLUS Pods after school for a 75-minute session. Each afternoon, there are two sessions, of which one can accommodate 25 children and hence both sessions serve 50 children in each village. The customer relationship is basically dedicated personal assistance coupled with features of co-creation with the targeted customer group. Going beyond the traditional thinking of non-profit organisations, 40K PLUS charges for the service they provide. This approach has assured the scalability and sustainability of the social enterprise. One of the main features of this social enterprise model was that the enterprise maintains a strong set of partnerships with educational resources, facility providers and technology suppliers. Costs of the operation seem to be value-driven. The revenue mechanism reflects one of the main features of social enterprises: self-funding. The contribution of these key features to generate an innovation-driven organisational environment is explained later in this chapter.

### 7.3.2 Business Model – NCEC

The key features of the business model of NCEC are summarised in Table 41. The need focused on by NCEC emanates from a niche market as there was no provider of suitable training and job opportunities to people with intellectual disabilities. Their value proposition is composed of a unique offer of a customised service in which customers get the opportunity to be trained around the skills they might already have.
Organisational Social Capital and Social Innovativeness

Table 41: Key Features of the Business Model – NCEC

<table>
<thead>
<tr>
<th>Key Partners</th>
<th>Key Activities</th>
<th>Key Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Queensland State Government</td>
<td>• Café maintenance</td>
<td>• Dedicated and supportive staff</td>
</tr>
<tr>
<td>• Brisbane City Council</td>
<td>• Training the members</td>
<td>• Solar energy–based energy control system</td>
</tr>
<tr>
<td></td>
<td>• Park and public space maintenance</td>
<td>• Recycling process</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Value Proposition</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Selecting the works to suit the workers</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Designing the business around the skills workers have</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Providing extra assistance on the job as well as actively connecting with organisational members (workers) family and supporters</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Customer Segments</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• People with mental disabilities</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>The Need</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>• Absence of jobs with needed flexibility for the people with intellectual disabilities</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Channels</th>
<th>Customer Relationships</th>
<th>Revenue Streams</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Own business premises: Espresso Train Café</td>
<td>• Strong and close relationships with customers – dedicated personal assistance</td>
<td>• Earnings from Espresso Café</td>
</tr>
<tr>
<td>• Website</td>
<td></td>
<td>• Government procurement of park and space maintenance</td>
</tr>
<tr>
<td>• Government procurement opportunities</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: Researcher

Therefore, the job opportunity is matched with the worker’s skills. Further, the customer relationship is dedicated personal assistance customised to the cohort of intellectually impaired people. Although the cost structure targets a cost reduction approach, the café is running at a loss. Yet, the maintenance of the business is supported partially by self-generated revenue and from social procurement. The Espresso Café seems to be running with an approach of worker co-creation, as the workers are not only undergoing training but also contributing to the business success.
7.3.3 Business Model – Sprout Ventures

Table 42 summarises the distinguishing features of Sprout Ventures’ business model.

<table>
<thead>
<tr>
<th>Key Partners</th>
<th>Key Activities</th>
<th>Key Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Lend Lease</td>
<td>• Hub maintenance</td>
<td>• Co-working space</td>
</tr>
<tr>
<td>• Land Corp (for Akimos Beach Hub)</td>
<td>• Place management</td>
<td>• Café</td>
</tr>
<tr>
<td>• Green Building Council Australia</td>
<td>• Space design</td>
<td>• Events space</td>
</tr>
<tr>
<td>• Aurora</td>
<td>• Place evaluation</td>
<td>• Coordinating staff</td>
</tr>
<tr>
<td>• Impact Investment Group</td>
<td>• Enterprise setup</td>
<td></td>
</tr>
<tr>
<td>• Bendigo Bank</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Youth Action Net</td>
<td></td>
<td></td>
</tr>
<tr>
<td>• Alkimos Beach</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Table 42: Key Features of the Business Model – Sprout Ventures**

**Value Proposition**
- A ground-up opportunity to address the early community facility delivery through community run pop-up hubs

**Customer Segments**
- Providing space opportunities to develop a platform for community facility development in the areas where domestic violence, social isolation and depression are higher

**Channels**
- Website
- Own enterprise hubs
- Property developers
- Community

**Customer Relationships**
- Strong connectivity with customers in designing and implementation of the project

**Cost Structure**
- Hub management fee

**Revenue Streams**
- Earnings from Sprout Café
- Seedling Community Fund

**Source: Researcher**

Sprout Ventures targets communities in the outer suburbs in Australia. Targeting the general mass market of community, the value proposition is offered as a customisation strategy. It seems that Sprout tends to follow a customer co-creation approach to devise the value proposition, in which community is directly involved in the service delivery process. The
service is communicated to the mass market through strong online presence in space management, design and place evaluation. Some of the earnings from Sprout Café are utilised for funding community projects as explained by Ritchie:

*ten cents in every dollar spent at the café goes into a fund, and then once a quarter grassroots community groups apply for the funding, three are selected and then the public votes for how the money is distributed.* (Smerdon, 2015)

This funding mechanism works like crowdfunding and the community votes for the project to be implemented.

Therefore, the community has a direct involvement in the services offered by this venture. As was the case in previous two social enterprises, Sprout Ventures has also formed strong partnerships with an array of related organisations to generate positive outcomes on business activities, which is a key point discussed below as a salient innovation-driven characteristic.

### 7.4 SOCIAL INNOVATIVENESS OF SOCIAL ENTERPRISES

Qualitative content analysis generated four broad themes representing social innovativeness of social enterprises. The following section elucidates these salient innovative characteristics with direct quotes obtained from document analysis.

#### 7.4.1 Market Focus

40K PLUS has shown a strong market focus and an effective response to customer needs. 40K PLUS’s strong market focus can be seen in many aspects related to their strategic approach of achieving their social mission. As an effective response to under-resourced schools and unavailability of quality teachers, 40K PLUS has introduced internationally sourced but culturally sensitive learning content in Android tablets. There are no teachers, but a facilitator
hired from the local village is trained to motivate the children. The need for qualified teachers has been substituted by the technology platform used by 40K PLUS, where instructions are technologically provided, and peer-learning is encouraged. Lack of wi-fi access could have been a constraint to this process, yet 40K PLUS has designed lessons as offline-accessible content. Not only that but the market focus has made the business strategy stronger. The target market is children suffering from extreme poverty living in Indian villages. Rather than offering the service free of charge, due to the strong market focus of 40K PLUS, the enterprise has found that parents can pay for the service, which ultimately makes the service sustainable and also offers the power balance to the customers (parents) of the business. The CEO and the co-Founder explains this:

we discovered that selling the service was more valuable to the villagers than giving it away ever was. Firstly, as soon as we started charging for education services, I noted that our relationship with the villagers changed in favour of the villager: they went from beneficiary to customer. This completely changed the power dynamic … (Castrission, 2017)

He tries to explain the need for social enterprises to be business-like service providers rather than becoming pure non-profit organisations where services may be offered for free. The underlying lesson that can be learnt from this is that social enterprises can offer a sustainable innovative solution when they are sensitive to market behaviour. 40K PLUS’s market focus and its benefits provide another important message; that is, when social enterprises couple their social service with market mechanisms (e.g. charging a fee for the service) the mentality of the service receiver is changed from “beneficiary” to “customer”. This allows the service receiver to call for a customised service from the social enterprise (power dynamic). This process of changing from beneficiary to customer itself is innovative.
NCEC’s market focus has been on a neglected market segment: people with mental illness or intellectual disability. It has discovered a unique gap in the market, which has often been missed by other organisations. The coordinator Richard Warner expressed:

*the people we support ... are keen to work, but due to the pace they learn at, employers are often unwilling to support them ... They might get multiple placements but wouldn’t be able to hold onto the job because there was not enough support or flexibility available.* (NCEC, 2017)

This market gap identification has made NCEC the first mover in the region to promote the social enterprise concept, as explained by Richard Warner:

*The founders* were pioneering the concept and practice of ‘social enterprise’ and ‘social procurement’ in Australia in a suburb of Brisbane in the early 2000. (Social Traders, 2016a)

Because of this attempt, NCEC has been able to secure government procurement opportunities as another means of funding the core processes of the business, reflecting the links between innovative features and related effects on performance.

In the case of Sprout Ventures, the continuous market focus maintained in early initiatives by partnering approaches with Lend Lease have paved the way for new opportunity identification, as explained by Ritchie:

*I learnt a lot about what was going on in ‘greenfield developments’ (outer suburban areas), and identified a massive gap in the early delivery of community facilities.* (Smerdon, 2015)
This indicates that previous strategic partnership initiatives have opened a corridor of opportunities to start a new business focused on community engagement, providing an example of sources of opportunity identification.

### 7.4.2 Learning and Development

40K PLUS is striving for better solutions. It could be observed that learning and development is embedded in their culture. The 40K PLUS website states:

*Given that one of our values is “strive for a better way,” we look at data that allows our development team to make improvements to the way the program works ...*  
(40K PLUS, 2017a)

They track the developments of the children every month through their technology and conduct two baseline tests per year to assess overall progress. In addition, operational developments such as attendance, enrolments, amount of pods opened and number of schools opened are also tracked and strategic initiatives are developed through a “Monitoring and evaluation report” (40K PLUS, 2016). It was observed that 40K PLUS specifically pay attention to mistakes they have made throughout their journey, and learn from them. In their words:

*At 40K, we never say that we have all the answers, but we’re committed to asking the right questions [...] We are also committed to true innovation, and pushing ourselves as hard as we can ... In so doing, we’ve made a lot of mistakes over the years ...*

This motivation for learning and development has helped 40K PLUS improve their technological solution. As a result, for example, they have been able to outsource content materials rather than develop these by themselves, and contract the technological platform of
the educational application instead of building it themselves. This approach has reduced their cost and enhanced the opportunity to serve more locations with higher flexibility.

Clarifying a different dimension of learning and development at NCEC, Warner mentioned:

> it’s a really diverse sector which brings strength, we all have much to learn from each other. We have tried to incorporate lessons from a number of the winners into our own future direction. (Social Traders, 2016a)

This emphasis on learning from others and getting insights from other businesses infuses NCEC with new ideas, improves the capacity of understanding new ideas, encourages new problem-solving approaches and increases organisational creativity.

### 7.4.3 Participative Decision-Making

It was found that 40K PLUS conducts a strategic planning process every year with the participation of the board and the executive team, where they decide on a five-year vision and the key activities of the upcoming year as a way of driving the social enterprise. The strategic plan of 40K PLUS states that:

> each year, we conduct a rolling strategic planning process, which sees us come together as a board and executive team, to reset the organisation’s direction. Based on the previous year’s key learning’s we’ve had, we reset a 5-year vision for 40K PLUS, as well as set 12-month milestones. (40K PLUS, 2017b)

This has provided the opportunity for 40K PLUS to identify priority areas for driving the social enterprise forward. In addition, it can serve as a platform for improving communication flow of the organisation and a continued focus on and committed to innovation.
Moving on to the case of NCEC, it was found that the business model offered a wider decision-making opportunity to members of the organisation and also a decentralisation of power, which ultimately paves the way to the success of the social mission. Warner states:

\[ \text{the cooperative model turns it around – it provides a sense of ownership and gives people an active role in the decision-making of how the enterprise is run. It really is helping people to help themselves. (Social Traders, 2016a)} \]

While this participative decision-making approach helps the service receiver to get involved in setting the enterprise’s strategic direction, it also assures continues commitment from them for the success of the social innovation. The members feel their role is valued by the organisation and that in turn enhances their commitment.

Sprout Ventures reflect on the interrelationships between innovative characteristics in leading up to participative decision-making. Their continuous market focus has been in line with their mission achievement and in turn has created participative decision-making, as evident by this response from Ritchie:

\[ \text{the whole purpose of that activity is to put the community in the driver’s seat, deciding who gets the money and what activities are most worthwhile, but also helping local groups engage with an audience. (Smerdon, 2015)} \]

They tend to maintain self-managing teams as mentioned on their website. Making an invitation to join the team, Sprout Ventures (2017) mentions that:

\[ \text{We are committed to creating a self-managing team culture built on trust, responsibility and fun. As such we have done away with position titles and flipped traditional pyramid-hierarchy structures on their head.} \]
Preoccupation of status impedes innovation in organisations. Instead, team-based environments encourage innovative free thinking, as further clarified by Sprout Ventures (2017):

*We are a workplace suited to free thinking, reflective, pragmatic, relational and optimistic people.*

It seems that the free and team-based thinking is embedded in the organisational culture of Sprout Ventures. This can drive a strong commitment towards innovation activities and also ensure a smooth flow of information or communication, which is essential for an innovative organisation.

### 7.4.4 Communication

Effective internal and external communication assists organisations to generate innovations. 40K PLUS has been successful especially in communicating externally to their potential collaborators and has won monetary and technology grants to support their technology platform. They won a $250,000 grant and technical support from Australian technology giant Atlassian. In an interview with the *Australian Business Review* Clary Castrission, CEO of 40K PLUS, mentioned:

this second stage of funding from the Atlassian Foundation is validation that they share our belief [...] and that our solution is scalable. (Adhikari, 2016)

This indicates that effective communication helps social enterprises to acquire legitimacy for their innovative solutions among resource providers. Castrission further went on to say that:

*Atlassian’s software architects were instrumental in improving our code, developing the road map to improve our technology systems.*
By taking the business’s unique message properly to collaborators, 40K PLUS has been able to acquire strategic resources for improving innovation solutions. Effective external and internal communication can result in important partnerships and support from external supporting bodies. For instance, NCEC has won Brisbane City Council social procurement contracts for maintenance of three small city parks. This has opened new paths to benefits from a steady contract of meaningful work in alignment with the organisational mission, a steady income source to be profitable and sustainable, and a profile in the community. In addition, it has resulted in a significant reduction of workload for the coordinator, allowing him to focus more on skill development of members, as evidenced by the following quote. According to Warner:

> the initial set-up of having a coordinator to find odd jobs required significant time to manage and did not allow for the flexibility required to meet the needs of the members. The larger contracts provided substantial benefits to NCEC, particularly reducing the number of customer relationships needing to be managed, leaving more time for coordinators to support the growth and development of its members.

*(Business Council of Co-operatives and Mutuals, 2014, p. 5)*

It is clear that communication results have brought NCEC an opportunity to improve their service solution to match market needs while assuring the sustainability of the funding mechanism.

Sprout Ventures’ external communication of their impact and business model has resulted in an array of strong partnerships generating synergistic achievements. Highlighting the fundamental reasons and rationale of partnering with Lend Lease, Ritchie explains that:

> both parties are able to identify and work to their strengths. Lend Lease is a big company and there’s no way they can move or adapt quickly. They know we have
the ability to adapt instantly to what the community wants, while they can handle all government approvals. (Social Traders, 2016c)

Further, external communications have brought many important benefits and realised useful outcomes through projects in Sprout Ventures’ initiatives. For instance, Sprout Ventures’ team has created the “Seedling Fund” brand now being offered as a partnership with Bendigo Bank.

7.5 SYNTHESISING THE QUALITATIVE ANALYSIS

When these three cases are taken together, the diversity of business models adopted is evident. Some of the unique structures discussed in Chapter 3 under Section 3.5 could be seen in the contexts of innovative social enterprises, reflecting the diversity of legal structures. The business model of 40K PLUS is a limited company while Sprout Ventures is a Certified B Corporation. Also, indicating a unique feature, NCEC is a non-trading cooperative. However, in the Australian context, this model is relatively less popular among social enterprises, even though it is another type of cooperative that can be legally established by a not-for-profit organisation. In the UK, these types of cooperatives are arguably named as social enterprises. The Social Enterprise Trends 2017 report (UK Government, 2017) finds that nearly 44% of the social enterprises are private limited companies in their legal status while about another 15% are sole proprietorships. Also, the same report identifies that nearly 7% of the social enterprises are Community Interest Companies whereas Australian context does not occupy such special structures as clarified in Section 3.5 in Chapter 3. One of the common features noted in this analysis is that they all have built up significant partnership arrangements to derive synergistic achievements.

The social missions are unique, yet the overall business model is the prominent innovative figure in this picture not the product or process itself. All the three social enterprises have been
able to find their own way of pursuing a sustainable social enterprise mission through key innovative features of strong market focus, participative decision-making and effective external communication. While 40K PLUS finds its sustainability through effective power transfer with a strong funding mechanism, Sprout ventures finds the sustainability through community engagement where they have offered the decision-making power to the community. The both ventures have used the same strategy in different economic and social interpretations inherited to the business models. 40K PLUS uses a more economic mean while Sprout ventures adopt a more social mean for the survival. NCEC is using a completely different approach which is predominantly depending on government intervention through social procurement activities.

In Section 3.5.2 of Chapter 3, based on Morris et al. (2011)’s emphasis on the innovativeness of non-profit organisations, it was identified that core mission achievement driven activities such as increasing efficiencies and serving more individuals are reflections of innovativeness. The impacts of the initiatives of the above analysed social enterprises support this theoretical explanation. For instance, 40K PLUS (2017a) highlights the achievements including:

... serving 1,073 children in 20 villages in India; setting up 40K PLUS in a low-cost private school, selling 130 licenses in November 2016; and performance gained by the children participated in PLUS programme against those who are not attending: gained additional 2.5 years of learning in literacy, and 1 additional year of learning in Speaking and Listening.

Not only that but also the evidence could be traced from Sprout Ventures, as stated by Ritchie:

our most encouraging statistic is that around 50 per cent of activities at Sprout over the last 12 months are completely independent of any external support from us or Lend Lease. (Smerdon, 2015)
On the other hand, generating new sources of revenue for social mission realisation was also identified as innovativeness in Section 3.5.2. All three social enterprises were based on self-financing mechanisms, supporting the theoretical clarification.

7.6 SUMMARY

This thesis is underpinned by two sub-research questions. The first thesis sub-research question concerned the extent of social innovativeness of Australian social enterprises. The quantitative analysis presented in the previous chapter uncovered that Australian social enterprises are high on their social innovativeness. To explain this aspect further, the mixed method approach adopted in this thesis employed qualitative content analysis to generate illustrative examples of Australian social enterprises.

The illustrative examples of social innovations in the three different social enterprises analysed above reflect the diversity of surveyed Australian social enterprises. The non-profit private limited company (40K PLUS), cooperative model–based social enterprise (NCEC) and family-owned Certified B Corporation (Sprout Ventures) analysed above clearly support the diversity of social enterprises in Australia. These social enterprises are innovative in many aspects such as value proposition, funding mechanisms, partnership arrangements and customer need segmentation. Strong market focus, participative decision-making, learning and development and communication have been key innovation tendency–driven features of the overall social innovation of these social enterprises. The next chapter is devoted to identifying the findings of the thesis and discussing these in detail by integrating the quantitative and qualitative analysis presented in chapters 6 and 7, respectively.
CHAPTER 8: FINDINGS AND DISCUSSION

8.1 OBJECTIVE

The objective of this chapter is to integrate the findings of the quantitative and qualitative data analysis. Firstly, a brief overview to the methods and key findings is presented. Secondly, a detailed discussion of the key findings pertaining to first thesis sub-research question is carried out. Thirdly, the main findings related to the second sub-research question are discussed. Finally, the key contributions of the thesis are highlighted.

8.2 AN OVERVIEW OF THE METHODS AND KEY FINDINGS

This thesis set out to examine the ways that OSC, opportunity-motivation-ability and knowledge creation explain social innovativeness of Australian social enterprises. Conducting a systematic review in OSC, firm-level innovativeness, and knowledge creation literature, nine theoretical propositions were established building on social capital theory, a dynamic capability view and a knowledge-based view of organisations. This process led to the development of an integrated conceptual model of OSC and social innovativeness. Instrument development and data collection was carried out in a rigorous manner with a pre-test and a pilot test before embarking on the main data collection. Survey data gathered from 112 managerial level employees of Australian social enterprises was analysed predominantly by employing path analysis of structural equation modelling. The thesis addresses two sub-research questions concerning (1) the extent of social innovativeness of Australian social enterprises; and (2) the ways that OSC, opportunity-motivation-ability and knowledge creation explain social innovativeness in Australian social enterprises.
The results demonstrated that structural and cognitive social capital indirectly influence innovativeness of social enterprises through the sequential mediation of opportunities and abilities to knowledge exchange, and knowledge creation. Cognitive social capital was found to have a direct effect on both knowledge creation and innovativeness. Relational social capital has no relationship with opportunity-motivation-ability, knowledge creation and innovativeness. Further, opportunity-motivation-ability interact with each other and opportunities to knowledge exchange is the key enabler of this interaction. These findings support five out of nine hypotheses established. The nested model comparison under the path analysis further uncovered five new significant relationships which were not hypothesised at the outset of model building in the thesis. These new relationships distinguish the improved model from the hypothesised model in three main ways by uncovering (1) the interrelationship among opportunity-motivation-ability; (2) a direct relationship between opportunities to knowledge exchange to innovativeness; and (3) a direct effect of cognitive social capital on innovativeness. These findings together make important contributions to OSC, knowledge creation, firm-level innovativeness and social enterprise literature. The following section discusses the findings in detail and highlights their significance to the concerned literature.

8.3 DISCUSSION ARISING FROM THE KEY FINDINGS

8.3.1 Discussion of the Findings: Sub-research Question 1

Social enterprises are recognised as the main vehicle for carrying social innovations to address social challenges. However, given the competition, challenges emanating from dual conflicting missions and multiple demands from stakeholders make it essential for social enterprises to be innovative. Yet, the understanding about the innovative behaviour of social enterprises is limited and the existing handful of studies contributes to an inconclusive and controversial
comprehension. Therefore, the first thesis sub-research question – *To what extent are Australian social enterprises socially innovative?* – calls for an advanced understanding of the level of social innovativeness of social enterprises. Some previous literature (e.g. Alvord et al., 2004; Chell et al., 2010; Choi & Majumdar, 2015; Peredo & McLean, 2006) recognises innovativeness as a key feature of social enterprises. Yet, TEPSIE (2015) states that there is often an implicit assumption that social enterprises are by nature new, entrepreneurial and innovative. On the other hand, some scholars argue that the social innovation produced by social enterprises has largely been presumed rather than empirically demonstrated (e.g. Barraket & Furneaux, 2012b). The descriptive statistical analysis in this thesis uncovered that nearly 71% of the Australian social enterprises studied have high social innovativeness. This indicates that a majority of Australian social enterprises tend to have an innovative organisational culture which is open to new ideas in pursuing their social missions. In addition, results further demonstrated that 38% of the Australian social enterprises studied consider themselves as introducing new products, processes or services more frequently compared to their competitors. This is a significant finding given that it helps to resolve the controversy in the social enterprise literature around the innovativeness of social enterprises by providing additional support to the assertion that innovativeness is a key characteristic of social enterprises (Alvord et al., 2004; Choi & Majumdar, 2013; Mair & Marti, 2006; Peredo & McLean, 2006) and they are generally more innovative than traditional businesses (Maas & Grieco, 2017).

The qualitative content analysis–based illustrative examples further uncovered that the concerned social enterprises’ organisational culture is reflective of strong market focus, participative decision-making, effectiveness in external and internal communication and learning and development. These findings further suggest that innovativeness is a behavioural construct towards organisational outcomes (Rhee et al., 2010) and reinforced by organisational
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culture (Hult et al., 2004). Innovativeness is the management of organisational culture to spot novel ideas and actions in the organisation (Van de Ven, 1986). Therefore, organisational learning is crucial for firm-level innovativeness (Amara, Landry, Becheikh & Ouimet, 2008; Calantone, Cavusgil & Zhao, 2002). In addition, market focus is a construct of adaptability, which has a positive relationship with innovativeness (Tuominen, Rajala & Möller, 2004), which in turn is largely dependent on the degree of market intelligence acquisition and acting on this (Hult et al., 2004). Moreover, participative decision-making is another element which increases cognitive conflicts and reduces relationship conflicts. This would subsequently increase the innovativeness in organisations (Eddleston, Otondo & Kellermanns, 2008).

These findings indicate that the above identified organisational characteristics could be the sources of higher social innovativeness of Australian social enterprises. The relationship between these organisational cultural characteristics and innovativeness is well established in mainstream firm-level innovativeness literature (Calantone et al., 2002; Damanpour, 1991; Hult et al., 2004; Hurley & Hult, 1998; Kyrgidou & Spyropoulou, 2013). Estimation of such a relationship in the social enterprise context is beyond the scope of this thesis and future research can confirm such possibilities. Yet, results here highlight that the organisational culture–based sources of innovativeness in the social enterprise context could be the same as those identified in the commercial business sector. In addition, the surveyed social enterprises included enterprises driven by triple bottom line thinking; that is, social, economic and environmental mission orientation. Those social enterprises create different business models for a circular economy, embedding different innovativeness approaches in order to have a positive impact on society (Ghisellini, Cialani & Ulgiati, 2016). For instance, recycling and solar powered energy at NCEC are clear examples of meeting such triple bottom line nuances. As such, the business philosophy these firms follow is embedded in the organisational culture of a social enterprise open to innovative ideas in pursuing its social mission.
The three illustrative social enterprise examples analysed in Chapter 7 are driven by innovative strategies to creatively destroy inefficient and inadequate solutions by government, commercial enterprises or third-sector organisations (Ormiston & Seymour, 2011). All of them are based on uniquely defined value propositions aiming to address such inefficiencies. For instance, Sprout Ventures provides a business model–based solution to inefficiencies in early delivery of community facilities in outer suburban areas in Western Australia, by creating a co-working space, café and events space to encourage social connection and engagement. At the same time, 40K PLUS and NCEC mainly focus on two different neglected communities: children deprived of quality education due to extreme poverty, and intellectually disable people with no flexible job and training opportunities, respectively. These novel results provide contextual evidence to the statement made by Glänzel et al. (2013). They argued that social innovativeness is manifested at the mission level of social enterprises as well as in the distinctive goals set by the organisations and this will in turn be reflected in organisational procedures and practices (Glänzel et al., 2013). For instance, the rolling strategic planning process of 40K PLUS, participative decision-making through self-managing teams at Sprout Ventures, and partnership arrangements and sustainable revenue mechanisms of all the three social enterprises reflect on the above statement. Moreover, the hybridity of social enterprises allows them to be more innovative (Reay & Hinings, 2009) and hence, hybrid social enterprises exhibit higher levels of innovativeness, with some level of instability also due to conflicting dual mission logics (Mongelli, Rullani & Versari, 2017). The three social enterprise models illustrated in Chapter 7 are hybrid enterprises with different legal status: a private limited company, Certified B Corporation and a non-trading cooperative model. Hence, these results may support the assertion that having a social mission is a distinctive feature of social enterprises (Moss, Short, Payne & Lumpkin, 2011) yet, it does not change the entrepreneurial processes very much in social enterprises (Lumpkin, Moss, Gras, Kato &
Amezcua, 2013). Accordingly, these findings further indicate that some social enterprise processes and organisational arrangements mirror the dimensionalities of commercial ventures. Therefore, researchers could use the conceptualisations and measures applied in profit-oriented business contexts to map and analyse social enterprise and entrepreneurship phenomena. By uncovering this potential similarity in drivers embedded in organisational culture through qualitative illustrations, this thesis contributes to the methodological advancement of the social enterprise literature.

As demonstrated by these new findings, the reflections of innovativeness characteristics in the Australian social enterprises shows the importance of conceptualising and analysing innovativeness from an organisational cultural perspective. Moreover, it further indicates the capacity of such a conceptualisation to properly capture social enterprise innovativeness behaviour. This thesis conceptualises innovativeness based on the process view, whereas a higher attention has been paid to the product view of innovativeness by the extant literature. The process view reflects on innovativeness culture, representing the extent to which a firm has developed specific abilities that make it more productive in the use of the resources necessary to innovate (McGrath et al. 1996; Szymanski, Kroff, and Troy 2007). Innovativeness culture captures the sources of sustainable competitive advantage for firms, while innovativeness outputs represent the specific innovation activity of a firm at a given point in time (Hurley & Hult, 1998). Therefore, the current thesis is unique for its broader conceptualisation focus, which adds merits to the social enterprise literature.

Hence, social enterprise innovativeness is embedded in the organisational culture adopted more than the outputs generated. Theoretically, innovativeness and innovation output are positively related (Hurley & Hult, 1998). Thesis findings support this theoretical argument, as confirmed by the higher positive correlation between social innovativeness and relative innovation.
introduction of Australian social enterprises analysed in Chapter 6. The suitability of conceptualising and measuring innovativeness from an organisational culture perspective is supported by the findings and implications of the work of Duvnäs, Stenholm, Brännback and Carsrud (2012). In their study, they measure the firm-level innovativeness of social ventures based on items opened to examine the quality of social enterprise outputs. They found no relationship between innovativeness and financial performance of the studied social ventures and hence, they call for a new measure. What this makes clear is that output measures do not capture the level of innovativeness of social enterprises. Therefore, with a unique theoretical focus, this thesis suggests the application of organisational culture–based conceptualisation and a measurement to capture the innovativeness of social enterprises.

However, Weerawardena and Mort (2006) have found that social entrepreneurs perceive their organisations as innovative and such an orientation is related to the number of innovations developed and adopted (McDonald, 2007). As such, the positive correlation between social innovativeness and perceived level of innovation introduction founded in this thesis is supported by the literature. Conducting a quantitative comparison between social and commercial entrepreneurship, Bacq, Hartog and Hoogendoorn (2013) went on to support what Weerawardena and Mort (2006) found, and also state that the higher the maturity of social enterprises, the lesser would be the innovativeness. Yet, the findings of this thesis confirm that there is no association between firm age, firm size and social innovativeness. This finding is consistent with Runkawee and Kuntonbutr (2016) and Jiménez-Jiménez, Martínez-Costa and Sanz-Valle (2014). Yet, engagement in entrepreneurial behaviours is path dependent (Anderson & Eshima, 2013) and effectiveness of such entrepreneurial behaviours may also change as the firm develops (Wales, Monsen & McKelvie, 2011). Although older firms may have a broader market understanding to design entrepreneurial actions (Cohen & Levinthal, 1990), there may not be considerable outcomes due to declining market relevance of the
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knowledge (Anderson & Eshima, 2013). The limited knowledge, experience and availability of other resources is detrimental to young firms, yet structural and procedural inertia is relatively low in such firms, enabling them to engage in entrepreneurial actions with higher agility (McDowell, Harris & Geho, 2016). Further, as businesses mature, they gain in-depth knowledge and complexities of market behaviours and shape their business processes accordingly, creating more opportunity for innovative behaviours (McDowell et al., 2016). The high performance oriented strategic behaviours of future focus, maintenance of status quo and analysing information in decision making (Morgan & Strong, 2003) are associated with older firms as they have the capacity to understand external environments and design long-term strategic planning (McDowell et al., 2016).

Therefore, to conclude this section, by raising the first sub-research question this thesis has uncovered that a significant majority of the Australian social enterprises studied are high on their social innovativeness. This reflects that their organisational cultures are more open to innovative ideas and practices in pursuing their social mission. Further, the qualitative analysis of illustrative examples of social enterprises enriched this finding by highlighting the sources of high innovative organisational cultures. Therefore, the quantitative and qualitative mixed method approach adapted in this thesis has shed important insights into the firm-level innovativeness of social enterprises, building on the organisational cultural perspective and methodological advancement in social enterprise research.

8.3.2 Discussion of the Findings: Sub-research Question 2

Literature often links social capital with innovation, leading to mixed findings (e.g. Dakhli & De Clercq, 2004; McFadyen & Cannella Jr, 2004a; Sanchez-Famoso et al., 2015; Smith et al., 2005). These studies have viewed OSC as a “black box of producing innovation” rather than an investigation of the “mediatory processes and capabilities” which transform knowledge into
innovation (Filieri & Alguezai, 2014, p. 748). Therefore, the second sub-research question was raised based on two arguments. First, this thesis argued that OSC has no direct impact on innovativeness (Parra-Requena et al., 2015; Sankowska, 2013) and innovation (Filieri & Alguezai, 2014; Shu et al., 2012; Yli-Renko et al., 2001), whereas value creation is realised only through knowledge resource exchange and combination processes (Maurer et al., 2011a; Nahapiet & Ghoshal, 1998). Second, this thesis argued that the mere existence of OSC does not trigger knowledge resources embedded in social relationships by itself but, rather, needs motivation, opportunities and abilities as these factors are considered the prerequisites of knowledge creation (Argote & Ingram, 2000; Nahapiet & Ghoshal, 1998; Shu et al., 2012). Accordingly, the second sub-research question of this thesis – In what ways, if any, do opportunity-motivation-ability and knowledge creation mediate OSC and social innovativeness? – opens a new conceptual integration to explain the OSC and social innovativeness relationship mechanism in social enterprises.

The initial results of the path analysis of structural equation modelling revealed that the hypothesised model of the thesis was not fitting well with the data. Following this, nested model comparisons were performed and the improved model demonstrated five new statistically significant relationships in addition to the support for five hypotheses established initially. Therefore, the following section interprets and discusses the hypothesised relationships and newly found relationships separately and in detail.

**Findings Related to Hypothesised Relationships**

The following section initially discusses the findings related to OSC and opportunity-motivation-ability relationships, regardless of the sequence of hypotheses. Tie strength, trust and shared vision represented structural, relational and cognitive social capital, respectively. There were nine hypotheses established in the theoretical model proposed by the thesis. As
mentioned earlier, five out of those nine hypotheses were supported by the data. Results uncovered that there is a positive relationship between tie strength and opportunities to knowledge exchange (Hypothesis 1). Conducting a study on managerial ties, knowledge creation and innovation, Shu et al. (2012) argued that the broader the managerial ties, the higher will be the non-redundant resources accessed by the managers. These non-redundant resources trigger more opportunities for knowledge creation (Nonaka, 1994).

Trust (relational social capital) was related to opportunities to knowledge exchange and motivation to knowledge exchange. The results found that trust has no effect on opportunities and motivation to knowledge exchange (hypotheses 4 and 5). This is a new but surprising finding given that trust has been a heavily investigated concept in innovation literature. Further, most of the studies emphasised the positive impact of trust on innovation as well as innovativeness. A possible explanation to this different finding would be that trust comprises two types: benevolent trust and competency trust (Abrams et al., 2003, p. 65). Accordingly, benevolence-based trust allows organisational members to obtain advice from others without fear of condemnation while competence trust ensures the worth of listening and absorbing the knowledge of other trusted colleagues. Yet, measurement items of trust in this thesis were only about benevolent trust. Therefore, this lack of representation could have been the reason for the insignificance. In addition, trust is an amalgamation of integrity, reliability and mutual caring and each of these components affect creativity and innovation differently (Bidault & Castello, 2010). Bidault and Castello further emphasised that a high level of trust instead of a moderate level can make relationships more accommodating, which in turn results in lower creative tension, reducing the innovativeness. On the other hand, highly trusting relationships can cause low monitoring of relationships, which can reduce the effectiveness of innovation tendencies (Molina-Morales & Martínez-Fernández, 2009). Therefore, future research can incorporate competency trust in the measurements of trust and confirm the relationship.
Another possible cause to this non-significance of trust may rise due to extreme correlation between opportunity-motivation-ability factors (Table 28). However, variance inflation factor (VIF) confirmed the absence of multi-collinearity in regression tests (see Appendix E). If this is caused by a spurious correlation among the three variables, the future research can assess this by testing for interrelationships and causation among the variables subject to theoretical justification.

Shared vision (cognitive social capital) was related to opportunities and abilities to knowledge exchange and combine (hypotheses 7 and 8) and this supported both hypotheses. The common understanding brought by cognitive relationships increases opportunities to exchange and the ability to exchange and combine. Common meanings, language, attributes and values, as well as the communication and exchange of ideas, have a greater impact on knowledge gains and learning (Gupta & Govindarajan, 2000). Therefore, shared vision improves the ability to exchange and combine, which in turn increases knowledge creation. As McDonald (2007) emphasised, social mission–driven non-profit organisations create a supportive climate for innovation and new ideas. Hence, high levels of shared vision work as the glue directing organisational members towards innovation. In addition to this finding, this thesis uncovered a new relationship pertaining to shared vision. This is discussed in detail later in the chapter.

Moving on to the relationships between opportunity-motivation-ability and knowledge creation, results showed that there is a positive association between abilities to knowledge exchange and combine, and knowledge creation (Hypothesis 9). This result is consistent with the study of Radaelli et al. (2014). However, it is important to note that they focused on knowledge sharing whereas the current thesis focuses on knowledge creation, including knowledge exchange and knowledge combination. Further, Radaelli et al.’s (2014) measurements focused on capturing employees’ beliefs in their level of motivation,
opportunities and abilities. Yet, the focus of this thesis was to capture the contextual support built by the social enterprise organisational environment to create opportunities, motivate and influence the abilities of organisational members. A contrasting finding for this was produced by Turner and Pennington (2015), where they found that abilities have a negative relationship with knowledge sharing. Although their unit of analysis is the same as that of this thesis, the measurements of opportunities, motivation and abilities indicate that they solely captured the “I” perspective of the employee, whereas the current thesis has attempted to capture both the “I” and “we” perspectives in the measurements of opportunity-motivation-ability and knowledge creation.

Further on this line of discussion, it was found that there are no associations between opportunities to knowledge exchange (Hypothesis 2), motivation to knowledge exchange (Hypothesis 6) and knowledge creation. Although Radaelli et al. (2014) and Turner and Pennington (2015) investigated knowledge sharing with some differences in measurements and units of analysis, both studies found strong positive associations among opportunities, and motivation to knowledge exchange and knowledge sharing, in a contrasting manner.

All the above nine hypotheses were well justified in Chapter 4 based on existing theory. Yet, this is the first study to test these hypotheses empirically. Hence, all the above findings are significant and novel, although they are slightly consistent with some of the current literature. This is because there are methodological differences (i.e. measurements and units of analysis) despite the consistency in the findings.

**New Relationships Found**

The second research objective of the thesis was to conceptually relate OSC, opportunity-motivation-ability and knowledge creation into innovativeness of social enterprises followed by an empirical test of proposed explanatory mechanisms so as to extend the OSC and
innovativeness–related line of work. Accordingly, this thesis built on opportunity-motivation-ability factors, which form a robust framework for identifying the essential relationships needed to manage knowledge creation, leading to innovation (Turner & Pennington, 2015). This inclusion of opportunity-motivation-ability as a set of functional mechanisms has shed new light on the process behind social capital execution for social innovativeness development. Nested model comparisons revealed significant model improvements, distinguishing the empirical model from hypothesised model with three new set of relationships: (1) interrelationship among opportunity-motivation-ability factors; (2) a direct effect from opportunities to knowledge exchange to innovativeness; and (3) a direct effect of cognitive social capital on innovativeness.

The path analysis revealed that opportunity, motivation and ability factors interrelate among themselves. Specifically, indicating a prominent role among the three opportunity-motivation-ability factors, opportunities to knowledge exchange was found to influence both the abilities to knowledge exchange and combine, and motivation to knowledge exchange. This new result suggests that the more organisational members exchange their ideas and knowledge with others, the higher will be their efficiency and proficiency in exchanging and combining, and the collective effect may contribute to higher knowledge creation. In addition, it further explains that the mere existence of the factors is not a sufficient condition for both social capital execution and knowledge creation activities to take place but, instead, the interrelationship among the three factors is necessary. In this context, opportunities represent the environmental mechanism, which enables actions, while ability represents the organisational members’ skills and knowledge base related to the actions (Rothschild, 1999). Therefore, it can be expected that opportunities to exchange have triggered the ability of the organisational member to engage in knowledge creation activities, which in turn increases the tendency for social innovation in social enterprises. In addition, the analysis further revealed that there is a positive
relationship between opportunities to knowledge exchange and motivation to knowledge exchange. Entrepreneurial orientation–related literature suggests that within an organisational network, organisational antecedents tend to promote motivation to knowledge sharing since information sharing gives rise to value creation for both parties involved in exchange, which in turn enhances organisational innovative performance (Hornsby et al., 2002; Morris et al., 2011). Therefore, in one hand, this result is partially consistent with Siemsen et al.’s (2008) study where they identified an “extreme complementarity” of these three factors based on work performance theory. It is to be noted that this consistency of the finding is subject to two differences found in relation to the work of Siemsen et al. (2008, p. 433) where (1) the unit of analysis is a “knowledge sharing incident”; and (2) the focus is on knowledge sharing in a technological (software engineering) firm context. However, the clear difference of the findings of this thesis lies on the fact that these three factors are interrelated. A majority of the studies which have applied opportunity-motivation-ability factors to model their effects on various phenomena has not uncovered this and hence, this could be a future research avenue to be considered by the researchers.

With a partial consistency and a contradiction, results further demonstrated that opportunities to knowledge exchange play the prominent role among the opportunity-motivation-ability factors. Results revealed that OSC and knowledge creation are linked by the sequential influence of opportunities to knowledge exchange on abilities to knowledge exchange and combine. This suggests that prior to the abilities and motivation to knowledge exchange, the presence of opportunities to knowledge exchange is necessary in the organisational environment. In contrast, based on operations management literature particularly, Siemsen et al. (2008) highlight that the role of opportunity is implicit in promoting knowledge exchange whereas motivation and ability have been the profound determinants. Using the rational choice theory–based argument, Lam and Lambermont-Ford (2010) stated that motivation to exchange
is the most important factor in this process since employees deliberately and reasonably decide to share knowledge when they favourably assess the benefits to be attained by exchanging knowledge. The constraint factor model of Siemsen et al. (2008) also found that motivation is the primary enabler of knowledge sharing. Yet, in the current study, motivation is influenced by opportunities to exchange while also found to have no relationship with knowledge creation.

A possible explanation to these contrasting findings would be the differences in unit of analysis, the context, the focal concept, the measurements and the analytical methods adopted in testing the models. For instance, Lam and Lambermont-Ford (2010) focus on knowledge sharing and arrive at their conclusions based on case studies found in the literature. In addition, as noted previously, the unit of analysis and the focus of the work of Siemsen et al. (2008, p. 433) are different. Yet, the current thesis’s unit of analysis is a social enterprise, which is an organisational level analysis. Further, one of the focal concepts of this thesis is knowledge creation, which is a broader concept than that of knowledge sharing. This conceptualisation of knowledge creation captures the processes and practices related to both knowledge exchange and combination explicitly. In addition, analysis is carried out based on structural equation modelling. Therefore, there is a potential for producing contradictory findings. Hence, the comparisons and conclusions are made while acknowledging such differences.

However, Peters and O’Connor (1980) argued that although motivated employees possess abilities to exchange and combine, they need to have contextually supported opportunities to execute knowledge exchange activities. Further, as Radaelli et al. (2014) suggest, willing and able employees must have opportunities to perform. An open climate and adequate workload provide organisational members with needed opportunities to exchange (Siemsen et al., 2008). Further, organisational members must have the ability to share their knowledge before they motivate to share since knowledge sharing represents a difficult task (Lin & Huang, 2008),
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especially when tacit knowledge is exchanged (Szulanski, 1996). Therefore, Siemsen et al. (2008) have found that these three factors behave in an extremely complementary manner and, without developing one dimension, the other two would be less optimal. Argote et al. (2003) named opportunity-motivation-ability as the “mechanism of knowledge management” and suggested that these factors can be stimulated by more than one causal mechanism, given the properties of a knowledge management context. Therefore, the unique results of this thesis make it clear that the context can provide opportunities to exchange knowledge and can impact on the ability of people to exchange and combine knowledge. Hence, social relationships among the members and the organisational culture together provide organisational members with incentives to participate in knowledge exchange processes as well as opportunities to create, retain and transfer knowledge.

Path analysis uncovered the second distinguishing new relationship found in this thesis: the direct effect of opportunities to knowledge exchange on social innovativeness. The opportunities to exchange represent the context of accessing knowledge, and it can be a necessary advantage of increasing the capacity to innovate since combining one’s own knowledge with acquired knowledge is a possibility (Galunic & Rodan, 1998; Inkpen & Tsang, 2005). The opportunities to exchange would have resulted either from naturally developed strong ties or through deliberately formed strategies but they provide access to knowledge which can be combined and implemented in multiple ways to facilitate innovative activities of an organisation (Dhanaraj & Parkhe, 2006). This was clearly identifiable in the results of the thesis. Analysis found that both tie strength and shared vision positively related to opportunities to knowledge exchange. On the other hand, the context of accessing knowledge can present opportunities to identify new research findings and experimentation for new business ideas. According to Morris, Kuratko and Covin (2010), from a corporate entrepreneurship perspective, structural arrangements such as management support, worker
autonomy, entrepreneurial organisational design and culture create opportunities to knowledge exchange. This is highly commensurate with what is captured in the social innovativeness concept in this thesis, where it measures the cultural openness to new ideas in pursuing social mission. Therefore, the strong positive association results from higher compatibility across the concepts and measurements adopted in the thesis. On the face of this, there is a possibility of a direct relationship between opportunities to exchange and social innovativeness. Therefore, this can be taken as an opportunity to confirm the consistency and compatibility of the concepts and measurements adopted in this thesis to prove the methodological rigour of the thesis.

Taking the first and the second distinguishing novel findings identified and discussed above, these significant thesis findings highlight the central role played by opportunities to knowledge exchange. While previous studies had given significant attention to motivation to knowledge exchange, there was scant attention paid to opportunities to knowledge exchange. Therefore, the new conceptual integration and the empirical findings of this thesis resurrect the strategic importance of opportunities to knowledge exchange while simultaneously providing a deeper understanding of the conditions under which opportunities to knowledge exchange work effectively to explain knowledge creation in a social enterprise context.

The third differentiating finding is the direct effects of cognitive social capital on knowledge creation and social innovativeness. These relationships were not hypothesised in the conceptual model of the thesis. Shared vision includes collective goals and aspirations of members of the network (Molina-Morales & Martinez-Fernandez, 2010). Moreover, it refers to a common mental model of the future state shared by members of an organisation (Pearce & Ensley, 2004). Therefore, a higher cognitive social capital assumes the same perceptions about how to interact and therefore avoid possible misunderstandings in communications (Tsai & Ghoshal, 1998). When the members of a network have the same perceptions about how to act with others,
they can avoid possible misunderstandings in their communications and have more opportunities to freely exchange their ideas and resources; this enables them to see the potential value of exchanging and combining knowledge resources (Tsai & Ghoshal, 1998). Hence, shared vision allows organisation boundaries to be crossed and access to resources from other units (Molina-Morales & Martinez-Fernandez, 2010). The higher the norms, goals and common culture, the greater the tendency of individuals to share useful knowledge and, therefore, to innovate (Doh & Acs, 2010). Further, common goals and understandings are considered as mechanisms that help different members of a network to integrate knowledge and innovate (Inkpen & Tsang, 2005). The importance of this new finding in relation to a social enterprise context is furthered by the emphasis given by Caroli, Fracassi, Maiolini and Pulino (2018). Presenting a typology for social innovation components and attributes, they have argued that sharing a common vision and value is essentially an innovative relationship.

Accordingly, the nested model comparison–based results indicated that cognitive social capital directly influences social innovativeness in social enterprises. The identified effect of cognitive social capital represented by shared vision on social innovativeness is supported by the extant literature. Molina-Morales and Martinez-Fernandez (2010) found that shared vision is likely to make an organisation more innovative. Shared vision is a key component of organisational culture that has a significant bearing on the degree to which creative solutions are encouraged and implemented (Martins & Terblanche, 2003). A shared vision coordinates organisational members and departments, avoiding communication barriers (Calantone et al., 2002), which in turn supports the innovativeness of an organisation by providing a clear focus. Specifically, a higher level of cognitive social capital will enable firms to gain greater access to valuable knowledge and use it to identify new opportunities by acting proactively (García-Villaverde, Rodrigo-Alarcón, Ruiz-Ortega & Parra-Requena, 2018). This finding is partly consistent with the extant literature, although said literature has not investigated this much. When studied apart
from other dimensions of social capital, cognitive social capital demonstrated consistently positive findings (Zheng, 2010). For instance, in Garcia-Morales, Ruiz Moreno and Llorens-Montes’s (2006) study of Spanish organisations, shared vision demonstrated a positive relationship with organisational innovation. Furthermore, using a longitudinal design, Pearce and Ensle’s (2004) study of product and process innovation teams revealed a reciprocal relationship between shared vision and innovation. These findings reinforce the importance of having a shared vision for a social enterprise to develop and enhance social innovativeness. These findings further indicate the conceptualisation and analytical importance of including cognitive social capital in the OSC conceptualisation. However, cognitive social capital is the least studied dimension among the three constructs of OSC conceptualisation. Therefore, the revelation of the role played by cognitive social capital in developing social innovativeness extends and advances the understanding of the concept of OSC. These new direct effects and the interactions among the three opportunity-motivation-ability factors collectively determined the way OSC and social innovativeness is formed.

Accordingly, results uncovered that structural social capital indirectly influences social innovativeness of Australian social enterprises through full mediation of serially linked opportunities for knowledge exchange, abilities to knowledge exchange and combination, and knowledge creation. Strong ties facilitate the transfer of tacit knowledge, leading to positive impacts on innovative performance (Koka & Prescott, 2002). As emphasised by Argote et al. (2003), opportunities to exchange works as a mechanism of knowledge creation in this process. These organisational opportunities to exchange opened up by structural social capital play a crucial role in knowledge sharing since diffusion of tacit knowledge involves a complex and time-consuming osmosis process (Martin, Currie & Finn, 2009). With these effects, opportunities to knowledge exchange improve the abilities of employees, which in turn increase the level of knowledge exchange and combination.
With a surprising finding, as explained earlier, relational social capital has no statistically significant effect on any of the opportunity-motivation-ability factors, knowledge creation or social innovativeness. However, the other opinions about the effects of relational social capital focus on negative influences. As Molina-Morales and Martínez-Fernández (2009) argued, that closeness can facilitate trust in internal relations and deters access to external sources of knowledge resources. Further, over-reliance on trust can inhibit accessibility to diverse knowledge resources. Relational social capital was represented by trust and trustworthiness and according to Dakhli and De Clercq (2004) trust emerges from organisational members’ rational choices, objective information pertinent to credibility and competence of exchange partners and the level of repeated interactions and interpersonal care. Tangible and intangible barriers to knowledge sharing are constrained by strong trusting relationships and inspire a deep feeling of challenge (Shin & Lee, 2017). Trust-based relationships speed up sharing and enhance access to knowledge, skills and information (Shin & Lee, 2017) and also improve innovative idea generation (Doh & Acs, 2010).

In relation to cognitive social capital, in addition to the direct effect found in the nested model comparisons, results further revealed that cognitive social capital indirectly influences social innovativeness. Cognitive social capital influences opportunities to knowledge exchange and abilities to knowledge exchange and combine. As discussed above, opportunities to knowledge exchange affects abilities to knowledge exchange, which subsequently leads to higher knowledge creation. This direct and indirect influences created by cognitive social capital provide evidence for a partial mediation of opportunities, abilities to knowledge exchange and knowledge creation on the relationship between cognitive social capital and social innovativeness. This is a significant finding, highlighting the need to conceptualise OSC with three dimensions. This is because, among the handful of OSC conceptualisations, Leana and Van Buren (1999) define OSC with just two dimensions – associability and trust – which is
also cited in De Clercq and Belausteguigoitia (2015) as goal congruence and trust. These conceptualisations capture only the relational and cognitive aspects of OSC whereas Nahapiet and Ghoshal’s (1998) definition captures all three dimensions: structural, relational and cognitive social capital. Thus, the thesis findings reinforce the importance of conceptualising OSC with Nahapiet and Ghoshal’s (1998) dimensions, which incorporates the structural aspects of social capital.

To conclude, a summary of the research questions of the thesis, current debates underpinned these questions, findings and the applications of the thesis and the way the current thesis advances the existing debate and methodological approaches are summarised in Table 43. Taken together, this clarification of the process of developing firm-level innovativeness means the thesis model contributes to a richer understanding of the OSC theory of innovativeness from a strategic perspective. The findings of this thesis have important theoretical and managerial implications and they will be discussed in the next chapter. The following section focuses on outlining the main thesis contributions.

8.4 MAIN CONTRIBUTIONS OF THE THESIS

The aim of this thesis was to examine how OSC, opportunity-motivation-ability and knowledge creation explain social innovativeness of Australian social enterprises. The recent emphasis of social enterprise research has been on the management of organisational processes instead of continuous engagement in definitional debates. The following section discusses how the current thesis contributes to a significantly less explored area of social enterprises, mainly OSC and social innovativeness.
Table 43 - Summary of RQs, debates, findings and contributions of the thesis

<table>
<thead>
<tr>
<th>Research Question</th>
<th>Existing argument/application</th>
<th>Findings/application by the current thesis</th>
<th>How the findings contribute to the current debate/literature/methodological advancements</th>
</tr>
</thead>
<tbody>
<tr>
<td>RQ1: To what extent and how are Australian social enterprises socially innovative?</td>
<td>• Innovativeness as a key feature of social enterprises (e.g. Alvord et al., 2004; Chell et al., 2010; Choi &amp; Majumdar, 2015; Peredo &amp; McLean, 2006).</td>
<td>• The descriptive statistical analysis in this thesis uncovered that nearly 71% of the Australian social enterprises studied have high social innovativeness.</td>
<td>• Resolves the controversy on the innovativeness of social enterprises by providing additional support.</td>
</tr>
<tr>
<td></td>
<td>• There is often an implicit assumption that social enterprises are by nature new, entrepreneurial and innovative (TEPSIE, 2015).</td>
<td>• The concerned social enterprises’ organisational culture is reflective of strong market focus, participative decision-making, effectiveness in external and internal communication and learning and development.</td>
<td>• Highlights that the organisational culture–based sources of innovativeness in the social enterprise context could be the same as those identified in the commercial business sector.</td>
</tr>
<tr>
<td></td>
<td>• Social innovation produced by social enterprises has largely been presumed rather than empirically demonstrated (e.g. Barraket &amp; Furneaux, 2012b).</td>
<td>• Application of mixed method approach with content analysis of three social enterprises and descriptive statistics</td>
<td>• Provides contextual evidence to the statement made by Glänzel et al. (2013): social innovativeness is manifested at the mission level of social enterprises as well as in the distinctive goals set by the organisations and this will in turn be reflected in organisational procedures and practices.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>• Application of a broader conceptualisation for innovativeness based on concept travelling approach.</td>
<td>• Shows the importance of conceptualising and analysing innovativeness from an organisational culture perspective.</td>
</tr>
</tbody>
</table>
### RQ2: In what ways, if any, do opportunity-motivation-ability and knowledge creation mediate the OSC and innovativeness relationship of Australian social enterprises?

- Current literature links social capital with innovation, leading to mixed findings (e.g. Dakhli & De Clercq, 2004; McFadyen & Cannella Jr, 2004a; Sanchez-Famoso et al., 2015; Smith et al., 2005).
- Existing accounts have viewed OSC as a “black box of producing innovation” rather than an investigation of the “mediatory processes and capabilities” which transform knowledge into innovation (Filieri & Alguezau, 2014, p. 748).
- Provides a richer understanding of the OSC and innovativeness relationship with a new conceptual integration tested empirically.
- Rigorous demonstration of the role played by opportunity-motivation-ability factors and knowledge creation.
- Uncovers the prominent role played by opportunities to knowledge exchange and interactions among the opportunity-motivation-ability factors.
- Views knowledge creation through the lens of opportunity-motivation-ability factors.
- Uncovers the multiple effects of organisational dimensions on social innovativeness.

- Output based conceptualisations on innovation and firm-level innovativeness
- Further indicates that some social enterprise processes and organisational arrangements mirror the dimensionalities of commercial ventures.
- Structural and cognitive social capital indirectly influence social innovativeness of social enterprises through the sequential mediation of opportunities and abilities to knowledge exchange, and knowledge creation.
- Cognitive social capital was found to have a direct effect on both knowledge creation and social innovativeness.
- Relational social capital has no relationship with opportunity-motivation-ability factors, knowledge creation and social innovativeness.
<table>
<thead>
<tr>
<th>Execution of a predominantly quantitative research design supported by qualitative illustrations</th>
<th>Conducts an empirical study in an Australian social enterprise context where there is no study on innovativeness of social enterprises</th>
</tr>
</thead>
<tbody>
<tr>
<td>Application of a quantitative approach to analyse data – path analysis</td>
<td>Provides a strong conceptual model to build on for future studies.</td>
</tr>
<tr>
<td>Nested model comparisons for alternative models</td>
<td>Provides a strong quantitative methodology for future survey-based studies in social enterprises</td>
</tr>
<tr>
<td>Robustness ensured by pilot tests and pre-tested questionnaire and hypotheses testing through linear regression prior to path analysis</td>
<td></td>
</tr>
</tbody>
</table>

Source: Researcher
Social enterprises provide a fertile ground for social innovations to emerge, develop, grow and sustain (Borzaga & Bodini, 2014). However, the conflicting dual mission, diverse tensions emerging from multiple stakeholder demands and competition make it essential for social enterprises to be innovative (Teasdale, 2012). Therefore, innovativeness is considered as the most important survival factor that would encourage innovation in the social enterprise context. Yet, the literature on social enterprise suffers from several limitations: (1) there is a controversy over the degree of innovativeness of social enterprises (e.g. Barraket & Furneaux, 2012a; Peredo & McLean, 2006; TEPSIE, 2015); (2) there is a limited understanding of innovative behaviours of organisations (Kyrgidou & Spyropoulou, 2013) as a whole and in particular, the social enterprise context compared to other forms of organisations (Doherty et al., 2014); (3) scant attention has been paid to the determinants and formation of innovativeness at the firm level despite innovativeness being a prerequisite for survival of organisations; and (4) although OSC has been identified as a determinant of organisational innovation, current investigations do not focus on the mediatory mechanisms of this relationship (Filieri & Alguezau, 2014). The knowledge embedded in OSC does not directly transform into innovativeness; instead, there are functional mechanisms that transform knowledge resources into innovative behaviours. This is important to address as it uncovers the essential functional mechanisms needed to manage developing innovativeness in social enterprises. However, recent scholarly works on social enterprises have predominantly paid attention to broad areas such as social enterprise business models, governance, strategy and performance management, and paradoxical tensions. In addition, case study method dominates a substantial majority of these studies. Despite the enduring insights made by current social enterprise scholarship, they do not offer more insights into the functional mechanism of developing innovativeness in a social enterprise context. Accordingly, this predominantly quantitative but qualitatively
supplemented thesis makes important contributions to social capital, knowledge creation, firm-level innovativeness and social enterprise literature.

By raising the first thesis sub-research question – *To what extent are Australian social enterprises socially innovative?* – this thesis advances the understanding of firm-level innovativeness of social enterprises with an empirical investigation conceptually underpinned by the process view of innovativeness. As such, the findings based on quantitative analysis and the qualitative content analysis–driven illustrative examples support the assertion that social enterprises are innovative and that is a key feature of their identity. Thus, the current thesis resolves a controversy in the social enterprise literature over the innovativeness of social enterprises. This is because some studies (e.g. Alvord et al., 2004; Chell et al., 2010; Choi & Majumdar, 2015; Peredo & McLean, 2006) recognise innovativeness as a key feature of social enterprises, while for others it is often an implicit assumption (TEPSIE, 2015) and social innovation produced by social enterprises has largely been presumed rather than empirically demonstrated (Barraket & Furneaux, 2012b). Furthermore, this thesis responds to calls to deepen the understanding about innovativeness in the social entrepreneurship setting with empirical and theory-based examinations (Short et al., 2009).

This thesis conceptualises and measures social innovativeness based on the process view of firm-level innovativeness, which holds that innovativeness is the organisational culture’s openness to new ideas. By doing so, this thesis contributes to the methodological advancement of social enterprise research and responds to calls to introduce a new measure of innovativeness (Duvnäş et al., 2012). In their investigation about outcomes of social entrepreneurship innovativeness, Duvnäş et al. (2012) found that social enterprise outcome–related measures do not capture the innovativeness of social enterprises. The innovativeness conceptualisation in the current thesis captures the sources of sustainable competitive advantage (process view of
innovativeness) instead of temporary gains of innovation outcomes (product view of innovativeness). The higher correlation found between social innovativeness and the relative level of innovation introduction further confirms the theoretical applicability of culture-based conceptualisations and measures. This thesis used Hurley and Hult’s (1998) innovativeness measurements, which are based on the organisational culture’s openness to new ideas. Accordingly, this thesis expands the understanding of social enterprise innovativeness by uncovering that innovativeness of social enterprises is embedded in organisational culture rather than in the outputs of social enterprise. This is important given that current understanding of innovative behaviours of organisations remain inconclusive and inconsistent (Cho & Pucik, 2005) in the literature, although comprehending the innovativeness of organisations is critical to managers (Quintane et al., 2011). The majority of innovativeness research tends to focus on product innovativeness, personal innovativeness and consumer innovativeness. An understanding of firm-level innovativeness is important, given innovativeness is a prerequisite for the survival and success of an organisation (Rhee et al., 2010).

In addition to the quantitative analysis, the illustrative examples of social enterprises further confirmed the suitability of conceptualising innovativeness as an aspect of organisational culture by uncovering the sources of innovativeness reflecting social enterprise organisational culture: namely, market focus, learning and development, communication and participative decision-making. These qualitative illustrative examples allow a closer analysis of social enterprise organisational culture’s openness with contextually richer insights by further emphasising the strategic importance of viewing firm-level innovativeness as an aspect of organisational culture which determines the ability to constantly produce innovation. Highlighting innovativeness as an aspect of organisational culture guides social enterprise managers in developing strategies to enhance organisational innovativeness in pursuing the social mission. Therefore, the qualitative and quantitative methods combination to assess social
innovativeness of social enterprises offers a richer understanding of social enterprise innovativeness and advances methodological approaches in current social enterprise research dominated by case studies and qualitative studies (e.g. Jones & Keogh, 2006; Seelos & Mair, 2005; Wallace, 1999). Social entrepreneurship studies have primarily used small samples and case study methodologies to enhance understanding about social ventures (Short et al., 2009). Quantitative approaches are important since empirical validity must be confirmed if scholars and practitioners are to craft effective policies that foster social entrepreneurship. Moreover, from a methodological point of view, this thesis confirms the assertion that “use of quantitative and qualitative approaches in combination provides a better understanding of the research problem than either approach alone” (Creswell & Clark, 2007, p. 5).

The concept travelling approach (George, 2011) adopted to conceptualise social innovativeness in this thesis supported the re-contextualisation of the innovativeness concept in the social enterprise domain and uncovered valuable contextual insights into the social innovativeness of Australian social enterprises. The rigorous demonstration in conceptualising and analysing social innovativeness in this thesis shows the applicability and relevance of mainstream firm-level innovativeness concepts and constructs in a social entrepreneurship context. Such an understanding, supported by qualitative illustrations, yields more precise depictions of innovativeness and its sources in social enterprises. Therefore, the application and relating entrepreneurship theories and constructs to the context of social entrepreneurship is a merited advancement of the interface between entrepreneurship and social entrepreneurship research (Choi & Majumdar, 2014; Dacin et al., 2011; Dey & Steyaert, 2012). Thus, this thesis contributes to expanding the boundaries of entrepreneurship research by rigorously demonstrating the re-contextualisation possibility. Moreover, this thesis uncovers contextually specific nuances of social enterprise innovative behaviour by locating the study in Australian social enterprise sector.
The second thesis sub-research question – In what ways, if any, do opportunity-motivation-ability and knowledge creation mediate the OSC and social innovativeness relationship of Australian social enterprises? – calls for a richer understanding of the OSC and social innovativeness relationship with a new conceptual integration to explain the mechanism in social enterprises. This thesis has made an explicit attempt to merge the OSC, knowledge creation and innovation literature to clarify the mechanism formed by opportunity-motivation-ability and knowledge creation on the OSC and social innovativeness relationship in an Australian social enterprise context. Opportunities, motivation and abilities to knowledge exchange were incorporated as a set of functional variables into the theoretical model, which sheds new light on the role played by these factors. Results of the path analysis of structural equation modelling confirmed that (1) structural (tie strength) and cognitive (shared vision) dimensions of OSC are related to opportunity-motivation-ability; (2) opportunity-motivation-ability are interrelated in their effect on social innovativeness through knowledge creation; and (3) knowledge creation is positively related to social innovativeness. These are significant findings given the paucity of consistent knowledge on organisational innovativeness (Cho & Pucik, 2005) in extant literature and the paramount importance of understanding innovative behaviours of organisations to managers (Quintane et al., 2011). Firm innovativeness is a prerequisite for the survival and success of an organisation (Rhee et al., 2010). Most importantly, mediatory processes and capabilities which establish the OSC and innovation relationship has been overlooked by the current literature (Filieri & Alguezaui, 2014, p. 748). Hence, these novel findings clarify the process of deploying OSC for the development of innovativeness in social enterprises through opportunity-motivation-ability and knowledge creation. Therefore, the thesis model contributes to a richer understanding of the OSC theory of innovativeness from a dynamic capability perspective.
Furthermore, this thesis extends existing accounts of opportunity-motivation-ability by uncovering the prominent role played by opportunities to exchange and the interrelationship among the opportunity-motivation-ability factors. Thesis findings demonstrate that opportunities to knowledge exchange influences abilities to knowledge exchange to form the relationship between OSC dimensions and knowledge creation, which in turn relate to social innovativeness. In overall, opportunities to knowledge exchange, abilities to knowledge exchange and knowledge creation form the full mediation between structural social capital and social innovativeness and a partial mediation between cognitive social capital and social innovativeness. This finding is unique given its partial consistency (Radaelli et al., 2014) and contradiction (Siemsen et al., 2008) with the literature, where motivation to knowledge exchange has been found to be the major activator among the three factors. This partial consistency and contradiction highlights that the current thesis is unique for its unit of analysis – an “organisation” – and for the inclusion of knowledge creation as a mediating variable, which was a combination of knowledge exchange and knowledge combination. Other studies (e.g. Radaelli et al., 2014; Siemsen et al., 2008; Turner & Pennington, 2015) have investigated the effects on knowledge sharing, whereas the present thesis focuses on a broader concept of knowledge creation based on an organisational (unit of analysis) perspective rather than an individual-level analysis. Therefore, by viewing knowledge creation through an opportunity-motivation-ability lens, this thesis established an additional tool to monitor and analyse OSC execution for knowledge creation and thereby social innovativeness. The significant findings of the thesis reinforce the importance of capturing and disseminating social innovativeness through organisational culture–based knowledge creation activities underlined by social relationships.

The improved model advances the theoretical understanding of the conceptualisation of OSC dimensions. OSC has often been investigated by focusing more on structural and relational
dimensions. Cognitive social capital is considered to be the least studied dimension (Nahapiet & Ghoshal, 1998; Zheng, 2010). Yet, the current study demonstrates the analytical importance of including the cognitive dimension in conceptualising OSC. This expansionist view has given rise to new important findings on the OSC and innovativeness relationship by uncovering the direct effect of cognitive social capital on social innovativeness on the one hand and the contrasting lack of effect of relational social capital on social innovativeness on the other hand. Taken together, this thesis advances the understanding of OSC by uncovering the heterogeneous effects of OSC dimensions. By doing so, this thesis reinforces the applicability of the three-dimensional conceptualisation by Nahapiet and Ghoshal (1998).

What is more, the theory testing approach employed to empirically investigate the OSC and social innovative relationship in the social enterprise context offers a methodological advancement to the qualitative approach prominent in social enterprise and social innovation literature. This is because the majority of social innovation studies have framed social innovation and social enterprise theory in a single case basis analysis (Krlev et al., 2014) and social enterprise literature is dominated by case studies (Agarwal, Chakrabarti, Brem & Bocken, 2017; Fowler, Coffey & Dixon-Fowler, 2017; Napathorn, 2018; Truong & Barraket, 2018). Therefore, empirical survey–based data related to socially innovative organisations are timely and important in order to better understand the process of social innovation emergence and development in societies (TEPSIE, 2015). In addition, a lack of consensus on the definition, constructs and causal links of social innovation has given rise to an absence of unanimity over the most appropriate methodologies to measure and evaluate social innovation (Unceta et al., 2016). Therefore, the new functional mechanism of opportunity-motivation-ability and knowledge creation tested by the mixed method approach offers researchers a strong conceptual model to build on for future studies. The approach taken and the results produced by this thesis support the argument made by Shane and Venkataraman (2000): “For a field of
Organisational Social Capital and Social Innovativeness

Science to have usefulness it must have a conceptual framework that explains and predicts a set of empirical phenomena that are not explained or predicted by conceptual frameworks already in existence of other fields of study” (Shane & Venkataraman, 2000, p. 171).

Recent social enterprise research has predominantly focused on broad areas, such as social enterprise business models and structures (e.g. Cooney, 2011; Fitzgerald & Shepherd, 2018; Wilson & Post, 2013); governance (e.g. Ebrahim et al., 2014; Mair et al., 2015); strategy and performance management (e.g. Battilana et al., 2015; Liu & Ko, 2012; Lyon & Fernandez, 2012b; Lysaght, Roy, Rendall, Krupa, Ball & Davis, 2018; Pache & Santos, 2013a); human resource management perspectives (Napathorn, 2018; Truong & Barraket, 2018); work integration (Dai, Lau & Lee, 2017; Villotti, Zaniboni, Corbière, Guay & Fraccaroli, 2018); and paradoxical tensions (e.g. Smith et al., 2012; Teasdale, 2012). Despite the influential and enduring theoretical insights generated by this work, current literature provides only a limited understanding on innovativeness in social enterprises (Doherty et al., 2014), knowledge management processes and practices of not-for-profit organisations (Cantu & Mondragon, 2016; Ragsdell et al., 2014; Rathi et al., 2016). Further, there is a “limited contribution to understanding the determinants and process of innovation and the relative innovativeness of social enterprises when compared with other organisational forms” (Doherty et al., 2014, p. 423). To the best of the researcher’s knowledge, no previous attempt has been made to examine OSC and knowledge creation’s contribution to social innovativeness of social enterprises. Therefore, this thesis proposes a new conceptual and empirically tested mechanism of developing social innovativeness within the complex social enterprise setting in a broader strategic perspective, rather than simply uncovering what is necessary to foster innovativeness.

Finally, this thesis extends the OSC and social innovativeness relationship into a new, previously overlooked application area, the Australian social enterprise context. All the
findings identified and discussed in the previous section are unique to the Australian social enterprise context. Therefore, the interpretations are subject to contextual differences. Uncovering such contextual differences is another merit of this thesis in advancing the social enterprise literature. It is a well-established understanding that social entrepreneurship manifests itself differently in different socioeconomic backgrounds (Kerlin, 2006). The socioeconomic background of Australian social enterprises is different to other countries. For instance, social enterprises in Finland must operate under commercial principles. They are recognised as a separate legal form of business (Duvnäs et al., 2012). Moreover, in the US, social enterprises emerge in the market economy (Bacq & Janssen, 2011a; Kerlin, 2006) while in the UK they are driven by social economy. In the Australian context, social enterprises are not separately recognised as a legal form of business and hence, not mandatory to incorporate. Therefore, sometimes they are treated as not-for-profit organisations. The strategic development and financial support of Australian social enterprises are mainly in the hands of local and state governments and large corporations. Yet, lack of government support for Australian social enterprises has been identified as a key constraint for the development of the sector (Barraket et al., 2016b). This is largely different from market-reliant US social enterprises or the UK’s social enterprise sector, which accounts for one of the most developed and well-supported ecosystems in Europe. Therefore, the social innovativeness and its organisational manifestation uncovered by this thesis highlights contextual specificities. In doing so, the current thesis adopts a rigorous approach, especially to ensure data integrity, validity and reliability by pre-testing existing scales in the actual Australian social enterprise setting before embarking on the main data collection. This approach prevents researchers making false understandings in worldwide comparisons, by disposing a substantive understanding of local contingencies (Bacq et al., 2013). Therefore, this thesis provides social
enterprise literature with a well-developed methodology that accounts for contextual differences.

8.5 SUMMARY

The central objective of the thesis was to examine the ways that opportunity-motivation-ability factors and knowledge creation collectively explain the OSC and social innovativeness relationship. This overarching objective was based on two research questions: (1) To what extent are Australian social enterprises socially innovative? and (2) In what ways, if any, do opportunity-motivation-ability factors, knowledge creation mediate the OSC and social innovativeness relationship of Australian social enterprises? The thesis uncovered that 71% of the surveyed Australian social enterprises rate highly on social innovativeness. The illustrative examples show that the social enterprises were innovative across a range of attributes such as market focus, learning and development, participative decision-making and communication. Findings of hypothesis testing demonstrated that structural and cognitive social capital indirectly influence social innovativeness of the surveyed Australian social enterprises through the sequential mediation of opportunities and abilities to knowledge exchange, and knowledge creation providing evidence for full mediation and a partial mediation, respectively. Cognitive social capital has a direct effect on both knowledge creation and social innovativeness. Relational social capital has no relationship with opportunity-motivation-ability factors, knowledge creation and social innovativeness. Opportunity-motivation-ability factors are interrelated with each other and opportunities to knowledge exchange is the key enabler of this interrelationship.

These significant findings make several noteworthy contributions to OSC, knowledge creation, firm-level innovativeness and social enterprise literature. By raising the first sub-research
question, the current thesis (1) resolves a controversy over the innovativeness of social enterprises; (2) deepens the understanding about innovativeness of social enterprises with a mixed method approach; (3) extends the process view of firm-level innovativeness by highlighting the applicability and usefulness of conceptualising firm-level innovativeness as an aspect of organisational culture; and (4) advances the methodological approaches in qualitative methods dominating social enterprise research with a mixed method approach. The significant findings of the second sub-research question contribute to (1) a richer understanding about the OSC and social innovativeness relationship; (2) advancing the understanding of the role played by opportunity-motivation-ability factors as a functional mechanism on the OSC and social innovativeness relationship; (3) extending the accounts of opportunity-motivation-ability factors by uncovering the prominent role played by opportunities to knowledge creation; (4) advancing the theoretical understanding of OSC conceptualisation by uncovering the heterogeneous effects of OSC dimensions; and (5) advancing the methods of social enterprise research by providing a strong conceptual model to build on for future studies. The next chapter draws conclusions, along with the research and managerial implications. In addition, future research avenues are suggested, and limitations of the thesis are highlighted.
CHAPTER 9: CONCLUSION

9.1 OBJECTIVE

The purpose of this chapter is to provide the thesis conclusions based on the previously discussed findings. An overview of the thesis including problem background, research objectives, methods and major findings will be presented initially. Managerial implications and future research areas are discussed, secondly. The chapter concludes by presenting the main limitations of the thesis.

9.2 OVERVIEW OF THE THESIS

Social innovations are considered as innovative mechanism responses to social challenges in the world. Social enterprises have a strong link with social innovations by being the main vehicle of carrying social innovations to the world. As a result, substantial attention is being paid to social enterprises by policy makers and researchers. Hence, social enterprise research is gaining traction, with recent work focusing on the areas of business models, governance, tensions, performance management, and strategy. The motivation for this thesis was triggered by several limitations identified in the literature despite the important insights generated by the extant social enterprise research: (1) inconclusiveness and inconsistency of research on innovative behaviours of organisations; (2) narrow conceptualisation of firm-level innovativeness with discrete terms of input and output measures; (3) controversy over the innovativeness of social enterprises; (4) scant attention paid to examination of the mechanism of firm-level innovativeness formation; (5) mixed findings related to the relationship between OSC and innovation; and (6) lack of attention on mediatory processes on the OSC and innovativeness relationship. Therefore, the overarching objective of the thesis was to examine
how OSC, opportunity-motivation-ability and knowledge creation explain social innovativeness of Australian social enterprises. Accordingly, this thesis was underpinned by two sub-research questions: (1) To what extent are Australian social enterprises socially innovative? and (2) In what ways, if any, do opportunity-motivation-ability and knowledge creation mediate the OSC and innovativeness relationship of Australian social enterprises?

This thesis embraces pragmatism and believes that the research question guides the approach to be taken by a study. Hence, the current thesis adopted a mixed method which comprised a predominant quantitative approach with a survey design and supplementary qualitative illustrations based on a content analysis of documents. Theory to be tested was specified and a set of conceptual propositions were built by carrying out a systematic literature review. Constructs were identified and propositions were restated as testable hypotheses. A pre-test and a pilot test were carried out before embarking on the main survey, which was implemented following the Tailored Design Method. Quantitative data analysis was performed employing path analysis of structural equation modelling. Qualitative illustrations were added to the assessment of level of social innovativeness of Australian social enterprises by performing a qualitative content analysis.

Addressing the first thesis sub-research question, descriptive statistics–based results demonstrated that nearly 71% of the Australian social enterprises surveyed rated high on social innovativeness. Illustrative examples of social enterprises uncovered that market focus, communication, learning and development, and participative decision-making are among the key characteristics of innovative Australian social enterprise organisational cultures. Therefore, the important conclusions drawn from the thesis in relation to the first sub-research question include (1) social enterprises are innovative in their approach taken to provide the solution addressing social mission; (2) innovativeness of social enterprises is embedded in the
organisational culture of social enterprises; (3) the hybrid nature of these organisations have supported them to distinguish innovativeness; and (4) social enterprises are predominantly driven by a social mission but organisational practices mirror their commercial counterparts. From a methodological point of view, it can be concluded that conceptualising and measuring innovativeness as an aspect of organisational culture could capture the nuance of social enterprise innovativeness.

These thesis findings make several noteworthy contributions to the OSC, knowledge creation, firm-level innovativeness and social enterprise literature. The significant contributions made along the first thesis sub-research question include (1) resolving the controversy over the innovativeness of social enterprises by empirically assessing and supporting with qualitative illustrative examples; (2) deepening the understanding about innovativeness in the social enterprise setting by responding to calls with empirical and theory-based examinations; (3) responding to calls to introduce a new measure of innovativeness of social ventures by conceptualising and measuring innovativeness as an aspect of organisational culture; (4) expansion of the understanding of social enterprise innovativeness by uncovering it as a feature embedded in organisational culture through a mixed method approach; (5) advancing the methods of qualitative approaches dominant in social enterprise research by adopting a concept travelling approach to conceptualise innovativeness; and (6) re-contextualising mainstream innovativeness concepts into a social enterprise context based on a predominantly quantitative method.

In relation to the second thesis sub-research question, path analysis–based results revealed that structural and cognitive social capital indirectly influence social innovativeness of social enterprises through the sequential mediation of opportunities and abilities to knowledge exchange, and knowledge creation. Cognitive social capital was found to have a direct effect
on both knowledge creation and social innovativeness generating evidence for a partial mediation. The relationship between structural social capital and social innovativeness is fully mediated by opportunities to knowledge exchange, abilities to knowledge exchange and knowledge creation. Relational social capital has no relationship with opportunity-motivation-ability factors, knowledge creation and social innovativeness. Opportunity-motivation-ability factors interrelate with each other to form the mechanism between OSC dimensions and knowledge creation. Opportunities to knowledge exchange become the main enabler of this interrelationship. Accordingly, the following conclusions were obtained: (1) OSC is a multidimensional concept and hence it is important to include all the three dimensions in the conceptualisation; (2) OSC triggers embedded knowledge resources through opportunity-motivation-ability factors; (3) knowledge creation is determined by the opportunity-motivation-ability factors; (4) there is a strong possibility of interrelationship among the opportunity-motivation-ability factors in forming the link with knowledge creation; (5) all three opportunity-motivation-ability factors have to be presented for effective knowledge exchange to take place; (6) opportunities to knowledge exchange is the key factor triggering motivation and abilities to knowledge exchange and combination; (7) a shared vision can directly enhance social innovativeness of social enterprises; (8) tie strength indirectly influences social innovativeness through serially linked opportunities to knowledge exchange and abilities to knowledge exchange and combine; and (9) OSC dimensions can have varied effects on social innovativeness.

These findings related to the second sub-research question add to a growing body of literature on OSC, knowledge creation, firm-level innovativeness and social enterprises. These significant contributions include (1) providing a richer understanding of the OSC and innovativeness relationship with a new conceptual integration tested empirically; (2) advancing the understanding of the mechanism of forming social innovativeness in a social enterprise
context with a rigorous demonstration of the role played by opportunity-motivation-ability factors and knowledge creation; (3) extending the accounts of opportunity-motivation-ability factors by uncovering the prominent role played by opportunities to knowledge exchange and interactions among the opportunity-motivation-ability factors; (4) providing an additional tool to monitor and analyse OSC execution for knowledge creation by viewing knowledge creation through the lens of opportunity-motivation-ability factors; (5) advancing the theoretical understanding of the conceptualisation of OSC dimensions by uncovering the multiple effects of organisational dimensions on social innovativeness; (6) extending OSC theory of innovativeness to a previously overlooked area by conducting an empirical study in an Australian social enterprise context; and (7) advancing the methods of qualitative approaches prominent in social enterprise research by providing a strong conceptual model to build on for future studies.

Therefore, the investigation of the OSC and innovativeness relationship using an opportunity-motivation-ability mechanism and knowledge creation as multiple mediators sheds new light on how social enterprises can develop social innovativeness. The application of opportunity-motivation-ability factors and knowledge creation enabled the thesis to build on the previous knowledge and to clarify how innovativeness will emerge within and pervade throughout the complex social enterprise context. Specifically, the thesis findings reinforce the importance of capturing and viewing innovativeness and its potential outcomes through a new functional mechanism of opportunity-motivation-ability factors. The following section proposes the managerial and research implications based on what has been uncovered in the previous section.
9.3 MANAGERIAL IMPLICATIONS

The significant findings of this thesis have several important implications for social enterprise managers. The empirical data of the thesis demonstrated that there is a positive relationship between social innovativeness and level of innovation introduction by Australian social enterprises. Given that social innovativeness was conceptualised in terms of a process view of firm-level innovativeness in the thesis, this finding alerts social enterprise managers to the need for creating an innovation-driven organisational culture instead of focusing on individual products or services. Moreover, this finding suggests for social enterprise managers that long-term performance gains are derived from organisational culture and hence, the need for developing an open organisational culture.

Another major finding of the thesis is the critical role played by opportunity-motivation-ability factors. This finding suggests for social enterprise managers that knowledge creation does not trigger merely by having social relationships among organisational members but instead, needs the right contextual environment (opportunities to knowledge exchange) and abilities to knowledge exchange and combine. Therefore, social enterprise managers need to create adequate and suitable opportunities to knowledge exchange and develop abilities to knowledge exchange and combine among organisational members.

The thesis findings uncovered that opportunities to knowledge exchange play the dominant role among the opportunity-motivation-ability factors by influencing both motivation to knowledge exchange, and abilities to knowledge exchange and combine. This finding is inconsistent with the established notion of the crucial role played by motivation to knowledge exchange. This suggests for social enterprise managers that the absence of opportunities to knowledge exchange hinder the knowledge creation process because abilities to knowledge exchange and combine are determined by contextual opportunities. This is further confirmed
by the finding of the direct positive association between opportunities to knowledge exchange and social innovativeness. Hence, it is the responsibility of managers to develop the necessary organisational context to exchange and combine knowledge.

Results of the thesis provided evidence for the important role played by shared vision of the organisation by strongly and positively associating with opportunities to knowledge exchange, abilities to knowledge exchange and combine, knowledge creation and social innovativeness. This finding informs social enterprise managers about the need to have common frames of reference by way of a shared vision, which ultimately avoids misunderstandings among members and drives towards a common mission of enhancing social innovativeness. This further suggests the need to have a shared vision to develop an organisation-wide commitment and tendency towards innovation.

9.4 RESEARCH IMPLICATIONS

The significant results of this study have several important implications, mainly for research in organisational social capital, firm-level innovativeness, knowledge creation and the social enterprise context. The thesis findings revealed that structural and cognitive social capital dimensions indirectly relate to social innovativeness while the relational dimension has no effect. In addition, the cognitive dimension of social capital has a direct relationship with social innovativeness. It is evident that the three dimensions of OSC tend to have heterogeneous effects on the other testing variables. Hence, an implication of these findings to organisational social capital researchers is that it is important to include all three dimensions – that is, structural, relational and cognitive – in OSC conceptualisation. Moreover, the correlation analysis of the thesis found that the three dimensions of OSC tend to be positively associated with each other, confirming previously untested theoretical assertions. Therefore, another
important implication to OSC researchers is to consider the interrelationships among the three dimensions in modelling OSC.

For researchers interested in firm-level innovativeness, the thesis results suggest that opportunity-motivation-ability factors and knowledge creation collectively form the mechanism between OSC and social innovativeness. In addition, the new relationships identified from the nested model comparison demonstrated a possible interrelationship among the opportunity-motivation-ability factors. Thus, an important implication to firm-level innovativeness scholars is the need to consider the interrelationship of opportunity-motivation-ability factors when including them as a set of functional variables in model building. Further, this thesis defined and measured firm-level innovativeness as an aspect of organisational culture (process view of firm innovativeness) rather than a narrow output-based conceptualisation (product view of firm innovativeness). The significant findings related to the social innovativeness of Australian social enterprises suggest the suitability of adopting a process view reflecting on organisational culture as an effective approach to capture firm-level innovativeness. Especially, when the rationale is built on a dynamic capability view, researchers may consider this organisational culture–based conceptualisation to maintain integrity among the study concepts and variables. This is because dynamic capabilities are ascribed to organisational processes and routines and hence, adopting the process view (i.e. reflecting on organisational culture) to conceptualise firm innovativeness is promising.

The abovementioned findings of the thesis have significant implications on knowledge management research. Researchers may consider the interrelated antecedent effect of opportunities-motivation-abilities factors on knowledge creation. The higher correlations among the three factors and the new relationships found in the thesis suggest the need to include all three factors in modelling such effects.
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From a methodological point of view, especially in the approach taken by this thesis to conceptualise and measure the key concepts and variables, there is an important implication to social enterprise researchers. Almost all the definitions and measurements of the thesis are derived from the mainstream literature (commercial enterprises). This approach highlights the possibility of adopting the concepts and measures from commercial enterprises following a robust pre-test and pilot study. Given that social enterprises tend to reflect on commercial enterprise practices while operating with a social mission, the adaptation of mainstream concepts and measures is promising. This is because studying the interface between social entrepreneurial aspects linking to firm-level innovativeness would have a tremendous impact on expanding the boundaries of both mainstream innovativeness and social enterprise literature, uncovering the potential applicability of innovativeness concepts and practices.

Based on these research implications and the overall findings of the thesis, the following section explains possible future research avenues.

9.5 FUTURE RESEARCH

**Empirical testing with a large sample:** Future research can advance the findings of this thesis by empirically testing the relationship between opportunities to exchange and social innovativeness in a large sample context.

**Longitudinal study:** Social innovativeness is essentially a behavioural orientation and cross-sectional studies cannot fully capture temporal growth effects on variables. Therefore, as Subramanian and Nilakanta (1996) suggested, any measure of innovativeness should be captured through this temporal effect. Hence, a longitudinal study of social innovativeness of social enterprise would warrant substantial advancement of understanding of the concept and the research methodology.
**Modelling the interrelationship between OSC dimensions:** Future studies should consider the possible interrelationships among OSC dimensions. The correlational analysis of the thesis showed that there is a possible association among these dimensions. Tsai and Ghoshal (1998) found such an interrelationship and Nahapiet and Ghoshal (1998) call for studies on this interaction.

**Assessing and testing the causality among opportunity-motivation-ability factors:** As new path estimations suggested, testing the causality among opportunity-motivation-ability factors empirically would be an important future research which would ultimately advance the theoretical and methodological approaches in social capital, social enterprise and innovation literature.

**Adding moderators to the hypothesised model:** It is also suggested to include moderators on the relationship between knowledge creation and social innovativeness. For instance, the centrality of a social enterprise’s social mission tends to have a moderating effect on organisational processes and outcome relationships (Gamble & Moroz, 2014). As McDonald (2007) emphasised, social mission–driven non-profits are more innovative and are more likely to develop and adopt innovations quicker than competitors since the selection of mission-driven innovation creates a supportive climate for new ideas.

**Designing a moderated mediation model:** Since organisations operate within external environments that often influence their opportunities for and constraints on innovation (Tidd, 2001), and because “successful innovations require a proactive focus on the external environment” (Droge, Calantone & Harmancioglu, 2008, p. 275), the environmental context may influence the effects of innovation on performance (Jansen, Van Den Bosch & Volberda, 2006). Additionally, the value of firm resources can severely change in unstable and unpredictable environments. Kraaijenbrink, Spender and Groen (2010) suggested the need for
researchers to move beyond the traditional resource-based explanation in order to clarify the complex scenarios discussed above. This is because a firm’s unique resources determine its behaviour, which is conditioned by the environmental context (Barney, Ketchen Jr & Wright, 2011), and the value and management of the firm’s resources must be evaluated in the environmental context within which the firm operates (Hitt, Ireland, Sirmon & Trahms, 2011).

Based on an interactional perspective, Pfeffer (1997) suggested that the interaction between dispositions and situations, rather than merely dispositions or situations, most successfully explains behaviour in organisations. Therefore, environmental hostility is essential to consider in this situation. A hostile environment is defined as negative, uncertain and the source of unfavourable conditions beyond the immediate control of the firm (Miles, Arnold & Thompson, 1993). Hostile environments influence the decision-making of an organisation, limiting positive economic opportunities while creating high potential for failure (Covin & Slevin, 1989). This may be severe for social enterprises operating with conflicting dual mission logic, which shapes the processes of opportunity identification and exploitation (Doherty et al., 2014). Therefore, future research can design a moderated mediation model by incorporating the above moderators to the proposed theoretical model in this study.

9.6 LIMITATIONS OF THE THESIS

As with all studies, this study is not free from limitations. One of the main limitations is the small sample size, although it yields a comparable response rate to previous studies conducted in the field within the Australian context. Therefore, testing the suggested theoretical model with a large sample may confirm the findings of the study in future research. Another related limitation is that the skewed distribution of social innovativeness variable which may have some effects on the tested models due to the limited variation among the respondents. This may be due to the social desirability bias which is the tendency of the respondents to say
things which place the speaker in a favourable light (Podsakoff, MacKenzie & Podsakoff, 2012). Future studies can include a scale/a few questions to measure social desirability bias of the respondents. Another limitation of this study is that the data are based on a cross-sectional explanatory survey design. Therefore, it is important to capture and incorporate a temporal feature into the investigation in future researches by conducting longitudinal research, since innovativeness is a behavioural orientation developed over time.
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APPENDICES

APPENDIX A: ETHICS APPROVAL

RMIT UNIVERSITY

Notice of Approval

Date: 16 June 2016
Project number: 20133
Project title: Organizational social capital and social innovation orientation of Victorian social enterprises
Risk classification: Negligible Risk
Chief Investigator: Professor Adela McMurray
Other investigators: Dr Nhlanhla Rametse; Professor Pia Arelius
Student Investigator: Chaminidika Weerakoon
Project Approved: From: 16 June 2016 To: 20 July 2019

Terms of approval:

Responsibilities of the principal investigator
It is the responsibility of the principal investigator to ensure that all other investigators and staff on a project are aware of the terms of approval and to ensure that the project is conducted as approved by BCHEAN. Approval is only valid while the investigator holds a position at RMIT University.

1. Amendments
   Approval must be sought from BCHEAN to amend any aspect of a project including approved documents. To apply for an amendment submit a request for amendment form to the BCHEAN secretary. This form is available on the Human Research Ethics Committee (HREC) website. Amendments must not be implemented without first gaining approval from BCHEAN.

2. Adverse events
   You should notify BCHEAN immediately of any serious or unexpected adverse effects on participants or unforeseen events affecting the ethical acceptability of the project.

3. Participant Information and Consent Form (PICF)
   The PICF must be distributed to all research participants, where relevant, and the consent form is to be retained and stored by the investigator. The PICF must contain the RMIT University logo and a complaints clause including the above project number.

4. Annual reports
   Continued approval of this project is dependent on the submission of an annual report.

5. Final report
   A final report must be provided at the conclusion of the project. BCHEAN must be notified if the project is discontinued before the expected date of completion.

6. Monitoring
   Projects may be subject to an audit or any other form of monitoring by BCHEAN at any time.

7. Retention and storage of data
   The investigator is responsible for the storage and retention of original data pertaining to a project for a minimum period of five years.

Regards,

Associate Professor Penny Weiler
Chairperson
RMIT BCHEAN
APPENDIX B: PARTICIPANT INFORMATION SHEET

INVITATION TO PARTICIPATE IN A SURVEY

Project Title: Organisational social capital and social innovation orientation of Australian social enterprises

Investigators:

- **Professor Adela J McMurray**
  - Director of Doctoral Training Centre, School of Management, RMIT University
  - Email:
- **Dr. Nithi Rametse**
  - Lecturer, School of Management, RMIT University
  - Email:
- **Professor Pia Arenius**
  - Director of Entrepreneurship and Innovation Research, School of Management, RMIT University
  - Email:
- **Mrs. Chamindika Weerakoon**
  - PhD Candidate, School of Management, RMIT University
  - Email:

Dear Participant,

You are invited to participate in a research project being conducted by RMIT University. Please read this sheet carefully and be confident that you understand its contents before deciding whether to participate. If you have any questions about the project, please ask one of the investigators.

Who is involved in this research project? Why is it being conducted?

This research project is being conducted as a partial fulfilment of the Degree of Doctor of Philosophy (PhD) in Management. This study examines the interplay between organisational social capital and social innovation orientation of Australian social enterprises. The investigating team is comprised with RMIT University staff and a PhD Candidate. The investigating team includes Professor Adela J McMurray (senior supervisor), Dr. Nithi Rametse (Co-Senior supervisor), Professor Pia Arenius (Associate supervisor) and Mrs. Chamindika Weerakoon (PhD Candidate/Principal research student). This project has been approved by the RMIT Human Research Ethics Committee.

Why have you been approached?

You have been approached to participate in this research project because of your status as a manager of a social enterprise. The contact details of the social enterprise were obtained from social enterprise finder directory (Freely available for public) of social tracers.

Please kindly note that the participation in this research project is purely voluntary and you have the freedom of withdrawing from the research project at any point of the process. You are under no pressure whatsoever to participate in this project.

What is the project about? What are the questions being addressed? If I agree to participate, what will I be required to do?

This project examines how organisational social capital and knowledge resource exchange explain social innovation orientation of social enterprises. Therefore, if you agree to participate in this research project, you will be asking to express your perception on organisational social capital, knowledge resource combination and exchange and social innovation orientation of your social enterprise on a given questionnaire. This questionnaire will take around 20 minutes to complete. This study is surveying 4985 social enterprises in Australia.
What are the possible risks or disadvantages?

There are no any personal or professional risks associated with participation in this research project except the time devoted to fill in the questionnaire. No any personal information will be ascertained at any stage of this process and strict confidentiality will be maintained throughout the study. The results of this study will be published in journals, theses and presented at the conferences, yet there is no possibility of recognizing individual responses due to the aggregation of responses.

Should you become concerned about your participation in the study, please contact Professor Adela J Mc Murray (details given above). She will deal with your concerns, discuss them confidentially and suggest appropriate follow-up.

What are the benefits associated with participation?

Your invaluable and independent expression on the items in the questionnaire will be of significant contribution to the success of the research project. Moreover, the findings of this study will be useful to the policy makers and social enterprise management to develop strategic initiatives for the effective development of the social enterprise sector.

What will happen to the information I provide?

Your response to the survey will be kept confidential for a period of 5 years and used only for the purpose of the thesis completion. The accessibility to individual responses will be given only to the investigators of this research project, mentioned above. You are not required to give sensitive information or any personal information (i.e. Name and address) at any point of time in this study. Responses will be collated and stored in locked personal computer subject to completion of statistical analysis. We will also ensure the strict confidentiality of the data you provide us with in the occasions of publishing these findings in research papers and thesis. Any information that you provide can be disclosed only if;

a) It is to protect you or others from harm
b) A court order is produced, or
c) You provide the researchers with written permission

What are my rights as a participant?

At any point of the research project you have:

- The right to withdraw your participation at any time, without prejudice.
- The right to have any unprocessed data withdrawn and destroyed, provided it can be reliably identified, and provided that doing so does not increase the risk for the participant.
- The right to have any questions answered at any time.

Whom should I contact if I have any questions?

Should you have any questions about the project please contact Professor Adela J Mc Murray (details above).

Any complaints about your participation in this project may be directed to: The Secretary, Human Research Ethics Sub Committee, Business Portfolio, RMIT University, GPO Box 2476V, Melbourne, 3001. Email:

Details of the complaints procedure are available at:

http://www.rmit.edu.au/staff/research/human-research-ethics

We value your participation in this survey.

Yours sincerely

Mrs. Chamindika Weerakoon
APPENDIX C: SURVEY INSTRUMENT

Survey on Social Innovativeness of Australian Social Enterprises

Organisational Social Capital and Social Innovativeness

INSTRUCTIONS: PLEASE TICK (√) THE OPTION THAT DESCRIBES YOU MOSTLY.

SECTION 1
Please tell us about the mission and the structure of your organisation.

Q1.1. Which of the following best describes the purpose of your organisation?
- [ ] fulfill a public or community benefit
- [ ] provide benefits to our members
- [ ] support the mission of our non-profit auspice
- [ ] generate financial benefits for individuals
- [ ] other (Please specify)

Q1.2. Our organisation is a
- [ ] profit entity
- [ ] non-profit entity

Q1.3. Our organisation is a
- [ ] single entity (standalone venture) (Go to Q1.4)
- [ ] part of a large organisation with multiple entities

Q1.4. If your organisation is a part of a large organisation with multiple entities, it is a
- [ ] subsidiary
- [ ] semi-autonomous entity under an established organisation (Auspice)

Q1.5. Our organisation is
- [ ] incorporated
- [ ] unincorporated

Q1.6. Please allocate a total of 100 points across these three categories as it pertains to your organisation’s goals (the total should equal 100 points).
- [ ] How many points for economic value? …………%
- [ ] How many points for social value? …………%
- [ ] How many points for environmental value? …………%

NOTE: WHEN ANSWERING THE FOLLOWING QUESTIONS PLEASE THINK ABOUT THE ORGANISATION WHERE YOU ARE CARRYING OUT YOUR DAILY WORK.

SECTION 2
We would like to know about the entrepreneurial culture of your organisation.

Q2.1. In our organisation

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Somewhat agree</th>
<th>Neither for nor against</th>
<th>Somewhat disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>management actively seeks innovative ideas</td>
<td>[ ]</td>
<td>[ ]</td>
<td>[ ]</td>
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<td>[ ]</td>
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<tr>
<td>innovation, based on research results, is readily accepted</td>
<td>[ ]</td>
<td>[ ]</td>
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<tr>
<td>innovation is readily accepted by management</td>
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<tr>
<td>innovation is encouraged</td>
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</tr>
</tbody>
</table>
SECTION 3

Please tell us about innovative outcomes of your organisation.

Q3.1. How many new activities (events and programmes)/products and/or services has your organisation introduced during the last three (03) years?

<table>
<thead>
<tr>
<th>Activities (Programmes/events)</th>
<th>New to the market (e.g. your organisation was first to introduce/implement)</th>
<th>New to the organisation (e.g. adapting an innovation common to other organisations also with improvements/modifications)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Services</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Products</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Q3.2. Compared to the other organisations in your field/sector/industry, please rate the level of introducing new activities (events and programmes), products and/or services by your organisation.

<table>
<thead>
<tr>
<th>Activities (Programmes/events)</th>
<th>Much higher</th>
<th>Moderately higher</th>
<th>Slightly higher</th>
<th>About the same</th>
<th>Slightly lower</th>
<th>Moderately lower</th>
<th>Much lower</th>
</tr>
</thead>
<tbody>
<tr>
<td>Services</td>
<td></td>
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<tr>
<td>Products</td>
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</tbody>
</table>

SECTION 4

We would like to know more about the culture of your organisation

Q4.1. In our organisation

<table>
<thead>
<tr>
<th>Strongly agree</th>
<th>Agree</th>
<th>Somewhat agree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>we spend significant time together in social situations</td>
<td></td>
<td></td>
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<td>we maintain close social relationships with one another</td>
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<tr>
<td>we know colleagues of the other functional departments on a personal level</td>
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<tr>
<td>we frequently communicate with each other on organisational matters</td>
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<tr>
<td>majority of us feel a sense of belonging towards our organisation</td>
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<tr>
<td>we have a strong positive feeling towards our organisation</td>
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<tr>
<td>we feel a sense of pride being employees of our organisation</td>
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<tr>
<td>all of us share the same ambitions and vision for the organisation.</td>
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<tr>
<td>all of us enthusiastically pursue collective goals and mission.</td>
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<td></td>
<td></td>
</tr>
<tr>
<td>We share organisational myths or stories with colleagues.</td>
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<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Organisational Social Capital and Social Innovativeness

Q4.2. In general, how often do the employees contact the following groups for organizational mission or work purposes?

<table>
<thead>
<tr>
<th>Group</th>
<th>Very often</th>
<th>Often</th>
<th>Sometimes</th>
<th>Seldom</th>
<th>Never</th>
</tr>
</thead>
<tbody>
<tr>
<td>With friends</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>With relatives</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>With the members from supporting agencies</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

SECTION 5

We would like to learn about knowledge exchange practices in your organisation.

<table>
<thead>
<tr>
<th>Employees of our organisation</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Somewhat agree</th>
<th>Neither agree</th>
<th>Somewhat disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>see benefits from exchanging and combining ideas with one another.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>believe that by exchanging and combining ideas they can move new projects forward more quickly than by working alone.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>at the end of each day, feel that they have learned from each other by exchanging and combining ideas.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>are proficient at combining and exchanging ideas to solve problems or create opportunities.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>do a good job of sharing their individual ideas to come up with new ideas, products, or services</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>are capable of sharing their expertise to bring new projects or initiatives to fruition.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>are willing to exchange and combine ideas with their co-workers.</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>often exchange and combine ideas to find solutions to problems</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Q5.2. Please select a number between each pair of response given below to indicate the one describes your organisation most.

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>In general, top managers of our organisation favour a strong emphasis on the marketing of tired and true activities (events &amp; programmes)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>R&amp;D, technological leadership and innovation</td>
</tr>
<tr>
<td>How many new lines of activities (events &amp; programmes/products/services) has your firm marketed in the past 5 years?</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Very many new lines of activities/products/services</td>
</tr>
<tr>
<td>Changes in activities (events and programmes/products or service lines) have been mostly of a minor nature</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>have usually been quite dramatic</td>
</tr>
<tr>
<td>In general, top managers of our organisation have a strong proclivity for low risk projects with normal and certain rates of return</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>high risk projects with chances of high returns</td>
</tr>
</tbody>
</table>
## Organisational Social Capital and Social Innovativeness

### Statement

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>Statement</th>
</tr>
</thead>
<tbody>
<tr>
<td>In dealing with competitors, our organisation typically responds to actions which competitors initiate</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>is very seldom the first business to introduce new activities / products / services</td>
</tr>
<tr>
<td>typically seeks to avoid competitive dashes, preferring a ‘live-and-let-live’ posture</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>typically adopts a very competitive ‘undo the competitors’ posture</td>
</tr>
<tr>
<td>When confronted with decision-making situations involving uncertainty, my organisation typically adopts a cautious ‘wait-and-see’ posture in order to minimise the probability of making costly decisions</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>a bold, aggressive posture in order to maximise the probability of exploiting potential opportunities</td>
</tr>
<tr>
<td>In general, top managers of our organisation believe that owing to the nature of the environment it is best to explore it gradually via timid, incremental behaviour</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>bold wide-ranging acts are necessary to achieve the organisation’s objectives</td>
</tr>
</tbody>
</table>

### Q5.3. How well the following statements describe your organisation?

#### Employees of our organisation are

<table>
<thead>
<tr>
<th>Employees of our organisation</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Somewhat agree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>given abundant training to assist personal interactions and communications</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>provided with on-the-job training to help them exchange and refine their ideas</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>encouraged to combine or recombine ideas to solve problems or create opportunities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>encouraged to absorb, assimilate, and recombine information from different sources (internal &amp; external)</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>encouraged to share and learn from their experiences and failures</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>encouraged to combine external and internal knowledge to generate new ideas</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>are usually considerate of one another’s feelings</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>have confidence in one another</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>show a great deal of integrity</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>are trustworthy</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

#### In our organisation

<table>
<thead>
<tr>
<th>In our organisation</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Somewhat agree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>middle-level managers are empowered and frequently trained to communicate with their supervisors and subordinates</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>senior managers emphasise information exchange and sharing in our organisation</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>we are frequently recombining existing knowledge to meet new demands</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>there is &quot;team spirit&quot; among members</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
Q5.4. How well do the following statements describe your perception?

<table>
<thead>
<tr>
<th>Statements</th>
<th>Strongly agree</th>
<th>Agree</th>
<th>Somewhat agree</th>
<th>Neither agree nor disagree</th>
<th>Somewhat disagree</th>
<th>Disagree</th>
<th>Strongly disagree</th>
</tr>
</thead>
<tbody>
<tr>
<td>I know that other colleagues will help me, so it’s only fair to help other members</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I trust that someone from my colleagues would help me if I were in a difficult situation</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I would feel a loss if my organisation was no longer available</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I really care about the future of the organisation.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I feel a great deal of loyalty to the organisation.</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>I can rely on the members I work with in this organisation</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

Q5.5. How would you characterise the external environment within which your firm operates.

Please select a number between each pair of response given below to indicate the one that best describes your external environment most.

<table>
<thead>
<tr>
<th>Statement</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
</tr>
</thead>
<tbody>
<tr>
<td>Very safe, little threat to the survival well-being of our organisation</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Very risky, a false step can mean our organisation’s undoing</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Rich in investment and marketing opportunities</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>Very stressful, exacting, hostile; very hard to keep afloat</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>An environment that our organisation can control and manipulate to its own advantage, such as a dominant firm has in an industry with little competition few hindrances forces</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
<tr>
<td>A dominating environment in which our firm’s initiatives count for very little against the tremendous competitive, political, or technological</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
<td>☐</td>
</tr>
</tbody>
</table>

SECTION 6

We would like to know more about your organisation.

Q6.1. When was your organisation founded? .........................................................

Q6.2. Location (i.e. Suburb) of your organisation: ......................................................

Q6.3. Number of employees in your organisation:

- Non-Volunteers (Paid employees): ..............................................
- Volunteers (Non-paid employee): ...................................................

Q6.4. Please tell us about the sources of income of your organisation.

Q6.4.1. Last financial year, what percentage (%) of your income came from the following sources?

- Government grants ..............................................%
- Government funding (When you base your products/services on public subsidies) .................%
- Donations ..........................................................%
- Trade .............................................................%
- Government contracts ............................................%
- Contracts with the private sector ................................%
- Other sources (Please specify) ........................................................................

Q6.4.2. What percentage (%) of income is re-invested in the social mission of the organisation?

- ☐ Less than 10%
- ☐ 10 – 30%
- ☐ 30 – 40%
- ☐ 40 – 50%
- ☐ More than 50%
- ☐ 100%
### SECTION 7

To conclude our survey, please provide us some information about you.

**Q7.1. Gender:**
- [ ] Male
- [ ] Female

**Q7.2. Which year were you born?**

……………………

**Q7.3. Highest level of Education:**
- [ ] Above Bachelor’s degree
- [ ] Bachelor’s Degree
- [ ] Advanced Diploma/Diploma
- [ ] Certificate III & IV
- [ ] Certificate I & II
- [ ] Senior secondary certificate of education (VCE/VCAL)

**Q7.4. How many years have you been working for this organisation?**

……………………

**Q7.5. You are mainly responsible for:**
- [ ] Marketing activities of the organisation
- [ ] Administrative activities of the organisation
- [ ] Financial activities of the organisation
- [ ] Other (Please specify) ……………………………

Any other comments:

………………………………………………………………………………………………………………
………………………………………………………………………………………………………………
………………………………………………………………………………………………………………
………………………………………………………………………………………………………………
………………………………………………………………………………………………………………
………………………………………………………………………………………………………………
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………………………………………………………………………………………………………………
………………………………………………………………………………………………………………

In order to receive a copy of the results, please provide an email address.

………………………………………………………………………………………………………………

Thank you very much.
APPENDIX D: ADDITIONAL CHECKLIST FOR QUESTIONNAIRE ASSESSMENT

Survey on Organizational Social capital and Social Innovativeness of Australian Social enterprises

The questionnaire given to you is expected to use to collect data from managerial level employees in Australian social enterprises. Please kindly offer your assessment of the questionnaire on the following criteria.

1. Usability of the questionnaire
   a) Are the instructions and items easy to read (Clarity)?
   b) Were the instructions given in the questionnaire sufficient?
   c) Were there any technical jargons difficult to understand?
   d) Are the items meaningful to you/your field (Relevance)?
   e) Are the items too specific or too general in nature (Specificity)?

2. How long did it take you to complete the questionnaire?
   a) Less than 30 minutes
   b) Between 30 minutes and 1 hour
   c) Between 1 and 1 ½ hours
   d) Over 1 ½ hours

3. Please list any items that were difficult to answer and specify the reasons using the followings.

<table>
<thead>
<tr>
<th>Item/s</th>
<th>Please select one or more of the following three reasons for each item you mention</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Unclear</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

4. Does the response scale (1-strongly agree to 7- strongly disagree) provide you with enough choices in making ratings?

5. Any other comments/suggestions to improve the quality of the questionnaire:
APPENDIX E: TESTING OLS ASSUMPTIONS

Ordinary Least Square (OLS) is the most common method of hypothesis testing and widely used across the disciplines (Plummer, 2010). It is considered that OLS is the best linear unbiased estimator (Blue) with the following features: expected value of the parameter estimates equals the true value of the parameters; efficient in that the parameters are estimated with minimum variance and consistent in that the parameter estimates converge to the true value of the parameters as the sample size increases (Kennedy, 2003).

There are five assumptions which must hold for OLS to be an unbiased estimator and these are known as “blue properties”.

i. The linear regression model is “linear in parameters.”

ii. There is a random sampling of observations

iii. The conditional mean should be zero.

iv. There is no multi-collinearity (or perfect collinearity).

v. Spherical errors: There is homoscedasticity and no autocorrelation.

vi. Error terms should be normally distributed (normality)

Therefore, normality (tested with Shapiro-Wilk test), collinearity (tested with variance inflation factor), homoscedasticity (tested with plot), and autocorrelation (tested with Durbin Watson test) were tested and the outputs are presented below.

a) Normality

Normality of the dependent variables were tested by using Shapiro-Wilk test and the results are summarised below.
Tests of Normality

<table>
<thead>
<tr>
<th></th>
<th>Kolmogorov-Smirnov*</th>
<th>Shapiro-Wilk</th>
</tr>
</thead>
<tbody>
<tr>
<td>Opportunities to knowledge exchange (Hypotheses 1, 4, 7)</td>
<td>0.14 112 0.20</td>
<td>0.94 112 0.49</td>
</tr>
<tr>
<td>Knowledge Creation (Hypotheses 2, 6, 9)</td>
<td>0.11 112 0.43</td>
<td>0.93 112 0.51</td>
</tr>
<tr>
<td>Social innovativeness (Hypothesis 3)</td>
<td>0.20 112 0.04</td>
<td>0.83 112 0.04</td>
</tr>
<tr>
<td>Motivation to knowledge exchange (Hypothesis 5)</td>
<td>0.24 112 0.03</td>
<td>0.84 112 0.02</td>
</tr>
<tr>
<td>Abilities to knowledge exchange (Hypothesis 8)</td>
<td>0.13 112 0.55</td>
<td>0.93 112 0.62</td>
</tr>
</tbody>
</table>

a. Lilliefors Significance Correction

b) Heteroscedasticity

Constant distribution of variance need to be assured (homoscedasticity) and this can be checked by using the scatter plot of residuals drawn against predicted values. The scatter plots for all the dependent variables in each hypothesis have been produced below. Given the fairly constant spread of the data around the predicted line, dependent variables achieve the homoscedasticity. Consequently, the absence of cone like distribution of residuals confirms that data are distributed with a constant variance depicting the homoscedasticity.

H1: Tie strength is positively related to opportunities for knowledge exchange
Organisational Social Capital and Social Innovativeness

$H_2$: Opportunities for knowledge exchange are positively related to knowledge creation.

$H_3$: Knowledge creation is positively related to social innovativeness.

$H_4$: Trust is positively related to opportunities for knowledge exchange.
H₅: Trust is positively related to motivation to exchange

H₆: Motivation to exchange is positively related to knowledge creation

H₇: Shared vision is positively related to opportunities for knowledge exchange
H₈: Shared vision is positively related to ability to knowledge exchange and combine

H₉: Ability to knowledge exchange and combine is positively related to knowledge creation
### c) Collinearity Diagnostics

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Variable</th>
<th>Tolerance</th>
<th>VIF</th>
<th>Minimum Tolerance</th>
</tr>
</thead>
<tbody>
<tr>
<td>H1: Tie strength is positively related to opportunities for knowledge exchange</td>
<td>Tie strength</td>
<td>0.947</td>
<td>1.056</td>
<td>0.631</td>
</tr>
<tr>
<td></td>
<td>Firm age</td>
<td>0.643</td>
<td>1.556</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Firm size</td>
<td>0.631</td>
<td>1.585</td>
<td></td>
</tr>
<tr>
<td>H2: Opportunities for knowledge exchange are positively related to knowledge creation</td>
<td>Opportunities for knowledge exchange</td>
<td>0.973</td>
<td>1.028</td>
<td>0.632</td>
</tr>
<tr>
<td></td>
<td>Firm age</td>
<td>0.632</td>
<td>1.583</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Firm size</td>
<td>0.645</td>
<td>1.551</td>
<td></td>
</tr>
<tr>
<td>H3: Knowledge creation is positively related to social innovativeness</td>
<td>Knowledge creation</td>
<td>0.989</td>
<td>1.011</td>
<td>0.641</td>
</tr>
<tr>
<td></td>
<td>Firm age</td>
<td>0.641</td>
<td>1.559</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Firm size</td>
<td>0.645</td>
<td>1.551</td>
<td></td>
</tr>
<tr>
<td>H4: Trust is positively related to opportunities for knowledge exchange</td>
<td>Trust</td>
<td>0.987</td>
<td>1.014</td>
<td>0.637</td>
</tr>
<tr>
<td></td>
<td>Firm age</td>
<td>0.637</td>
<td>1.57</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Firm size</td>
<td>0.64</td>
<td>1.564</td>
<td></td>
</tr>
<tr>
<td>H5: Trust is positively related to motivation to exchange</td>
<td>Trust</td>
<td>0.987</td>
<td>1.014</td>
<td>0.637</td>
</tr>
<tr>
<td></td>
<td>Firm age</td>
<td>0.637</td>
<td>1.57</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Firm size</td>
<td>0.64</td>
<td>1.564</td>
<td></td>
</tr>
<tr>
<td>H6: Motivation to exchange is positively related to knowledge creation</td>
<td>Motivation to knowledge exchange</td>
<td>0.97</td>
<td>1.031</td>
<td>0.634</td>
</tr>
<tr>
<td></td>
<td>Firm age</td>
<td>0.634</td>
<td>1.577</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Firm size</td>
<td>0.645</td>
<td>1.551</td>
<td></td>
</tr>
<tr>
<td>H7: Shared vision is positively related to opportunities for knowledge exchange</td>
<td>Shared vision</td>
<td>0.957</td>
<td>1.045</td>
<td>0.619</td>
</tr>
<tr>
<td></td>
<td>Firm age</td>
<td>0.619</td>
<td>1.617</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Firm size</td>
<td>0.641</td>
<td>1.561</td>
<td></td>
</tr>
<tr>
<td>H8: Shared vision is positively related to ability to knowledge exchange and combine</td>
<td>Shared vision</td>
<td>0.957</td>
<td>1.045</td>
<td>0.619</td>
</tr>
<tr>
<td></td>
<td>Firm age</td>
<td>0.619</td>
<td>1.617</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Firm size</td>
<td>0.641</td>
<td>1.561</td>
<td></td>
</tr>
</tbody>
</table>
Organisational Social Capital and Social Innovativeness

H₉: Ability to knowledge exchange and combine is positively related to knowledge creation

<table>
<thead>
<tr>
<th>Ability to knowledge exchange</th>
<th>0.965</th>
<th>1.037</th>
<th>0.627</th>
</tr>
</thead>
<tbody>
<tr>
<td>Firm age</td>
<td>0.627</td>
<td>1.596</td>
<td></td>
</tr>
<tr>
<td>Firm size</td>
<td>0.644</td>
<td>1.552</td>
<td></td>
</tr>
</tbody>
</table>

Variance inflation factor is less than 10 (Hair 2010). The most recent literature expect a VIF which is less than 5 (Ringle et al., 2015). In terms of both levels, the above results confirm absence of serious collinearity in data.

d) Auto-correlation – Durbin Watson Test

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>Durbin-Watson value</th>
</tr>
</thead>
<tbody>
<tr>
<td>H₁: Tie strength is positively related to opportunities for knowledge exchange</td>
<td>1.89</td>
</tr>
<tr>
<td>H₂: Opportunities for knowledge exchange are positively related to knowledge creation</td>
<td>2.11</td>
</tr>
<tr>
<td>H₃: Knowledge creation is positively related to social innovativeness</td>
<td>1.76</td>
</tr>
<tr>
<td>H₄: Trust is positively related to opportunities for knowledge exchange</td>
<td>1.58</td>
</tr>
<tr>
<td>H₅: Trust is positively related to motivation to exchange</td>
<td>1.72</td>
</tr>
<tr>
<td>H₆: Motivation to exchange is positively related to knowledge creation</td>
<td>2</td>
</tr>
<tr>
<td>H₇: Shared vision is positively related to opportunities for knowledge exchange</td>
<td>1.92</td>
</tr>
<tr>
<td>H₈: Shared vision is positively related to ability to knowledge exchange and combine</td>
<td>2.01</td>
</tr>
<tr>
<td>H₉: Ability to knowledge exchange and combine is positively related to knowledge creation</td>
<td>1.81</td>
</tr>
</tbody>
</table>

A value near 2 indicates non-autocorrelation; a value toward 0 indicates positive autocorrelation; a value toward 4 indicates negative autocorrelation.
Organisational Social Capital and Social Innovativeness

NOTES

1 Third sector organisations include a range of organisations which are neither government (public organisations) nor private organisations. These can be social enterprises, voluntary and community organisations, mutuals, co-operatives. They are value driven and pursuing a social mission instead of redistributing profits.

2 Kudumbashree is an initiative of women empowerment and poverty eradication by the State Poverty Eradication Mission of the Government of Kerala, India.

3 Bottom of the pyramid is the poorest socio-economic group in the world. Sometimes, base of the pyramid, bottom of the wealth pyramid and bottom of the income pyramid are also used to refer to bottom of the pyramid.

4 A private company operates as a social enterprise in renewable energy industry in New Delhi, India. They provide access to affordable clean energy through solar home light systems, rainproof solar light bulbs, biomass gas cookstoves etc. (http://www.boond.net/)

5 International B-Lab is a non-profit organisation which offers the companies the certification for social sustainability, environmental performance standards and meeting accountability standards. (http://bcorporation.eu/what-are-b-corps/about-b-lab)

6 “Third Space is a place where boundaries are blurred and normal rules do not apply, a transitional realm in which people move from one status or role to another” (Belk in Bruekner et al., 2016, p.9).

7 Overall tendency for innovation is identified in multiple terms: innovativeness (Hult et al., 2004; Lumpkin & Dess, 1996); innovation orientation (Dobni, 2010; Siguaw et al., 2006); strategic orientation towards (social) innovation (Glänzel et al., 2013).

8 Knowledge exchange and combination are the two constructs of knowledge creation (Shu et al., 2012).

9 Exchange means the resource exchanges in an organisation. In this thesis, it is specifically knowledge exchange. Therefore, motivation to exchange = motivation to knowledge exchange; opportunities to exchange = opportunities to knowledge exchange; abilities to exchange = abilities to knowledge exchange and combination.

10 Social Traders Australia (http://www.socialtraders.com.au/) is a not-for-profit company limited by guarantee, jointly funded by the Dara Foundation and the Victorian State Government through the Community Support Fund. This organisation is the leading social enterprise development organisation and maintained the Social Enterprise Finder directory created in 2010 and abolished in 2017. The definition provided by Social Traders Australia is used in main government documents, for instance, the Social Enterprise Strategy of the Victorian Government https://economicdevelopment.vic.gov.au/about-us/overview/strategies-and-initiatives/social-enterprise and the main survey in the field, “Finding Australia’s Social Enterprise Survey 2009–2017”.


12 Branches of the social enterprises were not considered for the sample. The main operational social enterprise was considered for the sample when there were multiple branches. Given that the unit of analysis is being a social enterprise, considering all the branches in an anonymous survey may misrepresent the overall findings due to the difficulty of calculating composite averages of each social enterprise.

13 This low reliability level might have occurred because of having only two items to measure shared vision. Further, composite reliabilities are assessed in the main survey reliability assessment and, EFA and CFA are run for further verifications. Therefore, this low reliability could be acceptable.

14 Incorporated and unincorporated associations.

15 Incorporated and unincorporated associations.
Firm size was classified in terms of the Australian Bureau of Statistics’ definition, where micro business = 1–4 employees, small businesses = 5–19 employees, medium businesses = 20–200 employees and large business = above 200 employees (only the non-volunteering staff was considered in this study).

The classification was based on the average scale value of social innovativeness obtained for each social enterprise. Accordingly, if the 7-point Likert scale value is at: $1 \leq X \leq 3$ – low level; $3 < X \leq 5$ – medium level and $5 < X \leq 7$ – high level.

B-Lab is a non-profit organisation which serves people who use business for good around the world. It offers certification for businesses that meet the highest standards of verified, overall social and environmental performance, public transparency and legal accountability (certified B-Corporations): https://www.bcorporation.net/what-are-b-corps/about-b-lab

Lend Lease is an assets and property management company with the aim of creating unique places through innovative solutions. http://www.lendlease.com/au/

A circular economy is a regenerative system where the resource inputs, waste and energy are reused, recycled and remanufactured to minimise the resource exploitation.

Pursuing a mix of private-profit oriented and non-profit oriented mission and related business model.