UNIVERSITY OF WESTMINSTER

KNOWLEDGE MANAGEMENT CAPABILITIES IN SOCIAL ENTERPRISES

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Abstract

Many studies have researched how organisations can benefit from Knowledge Management (KM). Critical factors, models and frameworks for successful implementations of KM have informed practitioners in different industries and countries. However, there is still a need for exploring other dimensions of KM as well as its application in different contexts. Further empirical evidence and operationalisation, which assure successful implementations, is also needed to improve not only companies but also society in general. Building on that observation, this study presents conceptual and empirical evidence to support the view that KM, understood as an organisational capability, improves organisational performance of the under-researched and increasingly important Social Enterprises (SEs). These, normally micro and small organisations, are gaining worldwide attention and importance as they address, following business principles, crucial social and environmental problems and provide more sustainable solutions. Nevertheless, there is still a lack of empirical evidence of how these organisations operate, perform and scale up.

The study supports this view by developing and empirically testing a model named Knowledge Management Capabilities in Social Enterprises (KMC-SE), which is the main contribution to knowledge of this study. The model describes the organisational pre-conditions and the knowledge activities that can develop Knowledge Management Capabilities (KMCs), which then have an impact on SEs' performance. A sequential, explanatory, mixed methods' research design was followed to test the model with empirical evidence from 432 SEs in the UK. The evidence suggests that current KMCs account for up to 20% of overall improvements in SEs' performance, based on a year-to-year comparison. Moreover, the KMC-SE Model proposes new insights in the traditional way of approaching KM and KMC development, highlighting (a) the important role of human and cultural factors, giving less emphasis to extrinsic motivations and technology, (b) the importance of studying informal KM practices, and (c) the essential inclusion of external dimensions into the equation.

Because of the limited research in organisational characteristics of SEs, and more specifically, their KM practices, the KMC-SE Model may have omitted other important elements that were particular to these organisations in their development of KMCs, as well as their performance measures. Therefore, the obtained KMC-SE Model needs to be considered as only a starting point in the study of KM in SEs.

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List of Acronyms

CFA	Confirmatory Factor Analysis
EFA	Exploratory Factor Analysis
EPOS	Electronic Point on Sale
ICT	Information and Communications Technology
IT	Information Technology
KBV	Knowledge-Based View
KMC-SE	Knowledge Management Capabilities in Social Enterprises
KMC	Knowledge Management Capability
KPI	Key Performance Indicators
NGO	Non-governmental Organisation
NPO	Non-profit Organisation
NVQ	National Vocational Qualification
OC	Organisational Capability
OP	Organisational Performance
PC	Processes Capability
PDP	Personal Development Programme
SECI	Socialisation, Externalisation, Combination, Internalisation
SEM	Structural Equation Modelling
SEs	Social Enterprises
SMEs	Small and medium size enterprises

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Declaration

I declare that all the material contained in this thesis is my own work.

Maria L. Granados

Publications

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Chapter 1

Introduction

Under the growing pressures of complexity and globalisation, enterprises that effectively capture the knowledge in their organisations and distribute it to their operations, productions and services, have a strategic advantage over their competitors (Drucker, 1991; Kogut and Zander, 1992; Quinn, 1992). Developing adequate capabilities to manage knowledge is therefore important for organisations. This has resulted in considerable research, both empirical and theoretical, studying how organisations can develop Knowledge Management Capabilities (KMCs) and obtain positive outcomes (Leonard-Barton, 1995; Gold *et al.*, 2001; Lee and Choi, 2003). This research has been mainly completed in larger private organisations, where resources and competitive conditions can trigger the use of Knowledge Management (KM) (Davenport *et al.*, 1998). However, there are other sectors and other organisation types and sizes that can develop these capabilities and improve their organisational outcomes. This is the case of small businesses and Social Economy organisations that have organic structures and cultures fostering knowledge capabilities and innovation (Ruiz-Mercader *et al.*, 2006; Hume and Hume, 2008). Therefore, there is a growing need for more empirical research that can explain how these KMCs can be developed by organisations of different sizes, sectors, structures or strategic orientations, and demonstrate what are the tangible outcomes of this development.

In addressing this issue, this study focuses on bridging the different theoretical and empirical approaches on KMCs with the under-researched, distinct characteristics of Social Enterprises (SEs). These organisations have received significant attention in recent years as academics and politicians have sought a solution to alleviate current social and environmental problems. They are micro, small or medium size organisations, usually with a multi-bottom line, related to social, environmental and economic goals, a multi-stakeholder dimension, and a broader financial perspective to focus on sustainability.

In this chapter, the background to the research problem is introduced, describing the motivations and importance for studying this area of knowledge. Section 1.2 establishes the

aim and the objectives of this research. Section 1.3 describes the methodology followed. Section 1.3 presents an overview of the context of each chapter in this document.

1.1 Background of the research problem

1.1.1 Knowledge Management Capabilities

Knowledge has been considered a source of competitive and sustainable advantages in organisations (Winter, 1987; Drucker, 1991; Kogut and Zander, 1992; Quinn, 1992; Skyrme and Amidon, 1993; McKern, 1996; Stewart, 1997; Sveiby, 1997; Ruggles, 1999; Trussler, 1999; Grover and Davenport, 2001). This is because knowledge, as a resource, possesses intangible and unique characteristics. However, it has been argued that resources by their own are not productive, they require the cooperation and coordination of teams of resources (Grant, 1991). Thus, the capacity for a group of resources to perform some task or activity is considered a capability that can result in competitive and sustainable advantages for the firm (Grant, 1991; Ulrich and Lake, 1991; Grant, 1996b; Spender, 1996; Kusunoki *et al.*, 1998; Sveiby, 2001). Moreover, by controlling and managing these capabilities, the organisation can improve efficiency and effectiveness (Barney, 1991). In that sense, knowledge could become the primary source of competitive and sustainable advantage for a company, and KM would support the aggregation of resources into capabilities. These capabilities can enhance the chances for growth and survival and establish long-term strategies for an organisation (Kogut and Zander, 1992).

The study of these capabilities has been considered and explained mainly by the Knowledge-based View (KBV) theory (Grant, 1991; Grant, 1996b; Grant, 1996a; Grant, 1997; Cabrera-Suárez *et al.*, 2001; Eisenhardt and Santos, 2002; Felin and Hesterly, 2007). Contributors have proposed important conceptual and theoretical foundations that helped the development and maturity of the theory, and explain, in some ways, its important participation in economies (Leonard-Barton, 1992; Nonaka and Takeuchi, 1995; Szulanski, 1996; Davenport and Prusak, 1998; Nahapiet and Ghoshal, 1998; Grover and Davenport, 2001). Nevertheless, this theory has been criticised for its lack of operationalisation and static view of knowledge (Foss, 1996; Håkanson, 2010). This has led managers to implement different theoretical strategies, models, techniques and systems, that sometimes have not resulted in the expected positive outcomes for the organisation (Hansen *et al.*, 1999).

In addressing these difficulties, various academics have investigated the elements that integrate these capabilities for the effective management of knowledge, so that they can be developed by organisations. Although significant, differential propositions can be found in the literature, it is argued that Knowledge Management Capabilities (KMCs) are generally integrated by both a process capability and an organisational capability (Leonard-Barton, 1995;

Gold *et al.*, 2001; Lee and Choi, 2003; Lee and Lee, 2007; Zaim *et al.*, 2007; Mills and Smith, 2011). That is, the activities that create and integrate knowledge and the organisational dimensions that leverage the knowledge activities. The empirical evidence offered in the literature for this development is, mostly, in large and profitable firms, with clear organisational components that articulate the development of organisational knowledge capabilities (Gold *et al.*, 2001; Lee and Choi, 2003; Liang *et al.*, 2007; Nguyen *et al.*, 2009; Zheng *et al.*, 2010; Mills and Smith, 2011).

However, a difficulty remains in translating these propositions into empirical scenarios. A possible reason for this is because organisations may differ in objectives, sectors, sizes and missions, thus, it is difficult to unify these models for improving the management of knowledge, quantifying the benefits, and measuring KM performance.

Therefore, there is a need for more theoretical foundations and empirical evidence that: (a) confirm and validate the proposition that KMCs improve strategic and operational outcomes; (b) investigate the organisational elements that resulted in the development of such capabilities; (c) validate this proposition under different organisational scales and structures, such as small and Social Economy enterprises; and (d) provide evidence to companies of how they can leverage knowledge that makes sense in their context, and demonstrating the positive outcomes that emanate from it.

1.1.2 Relevance of Knowledge Management Capabilities for Social Enterprises (SEs)

Social Enterprises are businesses that trade to tackle social problems, improve communities, people's life chances, or the environment (Social Enterprise UK, 2013). The impact of these organisations has significantly increased in recent years, with 68,000 SEs in the UK contributing at least £24bn to the economy and employing an estimated 800,000 people, with 39% of SEs concentrated in the most deprived communities (IFF Research, 2010; Villeneuve-Smith, 2010; Villeneuve-Smith, 2011). Consequently, these organisations are attracting the attention of governments and private organisations alike, as a response to mitigate current failures in the public, private and non-profit sectors. However, there is still a lack of empirical knowledge about how these organisations operate, perform and scale up (Haugh, 2005; Jones, 2007; Peattie and Morley, 2008; Robinson *et al.*, 2009; Shah, 2009; Muñoz, 2010). This knowledge is crucial for the organisations and for external supporters to design and provide accurate strategies to enhance the sector and maximise its impact and coverage. This results in an increasing need for more research and empirical data that describe and explain the idiosyncratic characteristics of SEs.

Academics and practitioners who have researched SEs suggest that they are different from the private, public and non-profit organisations because they occupy a unique space within the economy where, as businesses, they are driven by the need to be financially sustainable. However, compared with a normal, for-profit organisation, they use economic surpluses to drive social and environmental growth. Additionally, SEs are distinguishable from other non-profit or charity organisations because they trade in the competitive marketplace (Doherty *et al.*, 2009; Leahy and Villeneuve-Smith, 2009; Villeneuve-Smith, 2011). These differences resulted in SEs having normally a multi-bottom line, being related to social, environmental and economic goals, having a multi-stakeholder dimension and a broader financial perspective to focus on sustainability.

Considering this, it can be understood that a SE operates as a normal organisation that transforms inputs into outputs through production of goods or services. This transformation may involve innovation processes that would give the enterprise a comparable and competitive advantage over public and private sector organisations, and thus create social and environmental value. Moreover, as Mason *et al.* (2007) suggested, the ultimate purpose of SEs is long-term sustainability that would guarantee the dominance of their social and environmental value. This demonstrates that SEs might obtain the required sustainability and comparable advantage through the development of certain capabilities, such as the already described KMCs, just as their counterparts in the private, public and Social Economy sectors are doing.

Even though there is a paucity of research regarding the impact of such capabilities in the context of SEs (see Section 2.2.3.3 Page 26), SE contributors have suggested that the SE sector is challenged by competition and a performance driven environment. Thus, it is necessary to provide more business support, business skills and sustainability tools for SEs (Paton, 2003; Jones and Keogh, 2006; Bull, 2007; Doherty *et al.*, 2009). Moreover, it has been argued that SEs follow a strong knowledge and experience-sharing philosophy (Horst, 2008) that plays an important role in developing other economic sectors. This can be explained by their close relationship with customers and their needs, their utilisation of local resources (physical and social) and the creation of synergies between social and environmental objectives within the limits of their economic objectives.

All these considerations validate the importance of researching SEs from the Knowledge-based View (KBV) theory, investigating how KMCs can be developed within their idiosyncratic characteristics, the impact of this development, and its practical application.

1.2 Research aim and objectives

The above discussion reveals that, although empirical studies have demonstrated the positive relationship between the development of KMCs with organisational objectives, this evidence has been mainly collected from large private and public organisations, setting aside other types of organisation. This establishes a need for more understanding and empirical evidence of this relationship under distinct organisational settings, such as the ones presented in a SE. This type of organisation has received significant attention in recent years by academics and politicians because of their economic, social and political value, as a solution to alleviate current social and environmental problems in society. The criteria under which this research was designed are: (a) to broaden the organisational knowledge of this important type of organisation; (b) to identify concise strategies for improving their performance and maximising their impact; and (c) to evidence how KMCs can be developed in different organisational settings, whilst providing empirical evidence for these proposition. Taking into account these criteria, the purpose and aim of this research is:

> **To analyse the organisational conditions and knowledge activities that can develop Knowledge Management Capabilities and improve organisational performance of Social Enterprises and, in doing so, create and empirically validate a model for the development of such capabilities in Social Enterprises.**

In addressing the purpose, the objectives of this research are:

- To develop a comprehensive conceptual model that, based on theoretical assumptions, defines the organisational conditions and knowledge activities that develop KMCs and improve organisational performance of SEs;
- To validate this conceptual model based on empirical data collected from SEs; and
- To develop a novel model based on the empirical evidence that relates KMC development with the improvement of organisational performance in SEs.

1.3 Methodological considerations

To achieve the aim and objectives of the research, the study follows a mixed methods approach. The philosophical position of the researcher, which is critical realism and is explained in Chapter 4, and the purpose of this study, infer the use of both objective and subjective approaches. Therefore, there is a necessity for objective strategies that allow the assessment of existing theoretical assumptions in the context of SEs. These assumptions are related to organisational elements and knowledge activities that develop KMCs and improve organisational performance of an enterprise. In order to assess these elements and identify

causalities among variables, a quantitative approach is required. However, due to the limited empirical research on SEs (Granados *et al.*, 2011), and the relevance of the study to evaluate the theoretical elements in the working environment of SEs, a further subjective explanation of the objective findings is required. This understanding and explanation demands a qualitative approach.

The research was undertaken in an interactive way between quantitative and qualitative studies, following a sequential explanatory design (Creswell *et al.*, 2003; Creswell and Plano Clark, 2011). This design offers reliable and innovative analysis for theory building and empirical validation of conceptual models (Ivankova *et al.*, 2006).

1.4 Document Outline

The structure of the present study follows the four analytical constructs proposed by Phillips and Pugh (2010), namely, background theory, focal theory, data theory and contribution. The background theory is examined in Chapter 2, describing and discussing the present state of the art of both SE and KMC development literature. Focal theory is outlined in Chapter 3 by means of describing the development of the Conceptual Model, KMC-SE, based on theoretical assumptions from literature, and the generation of hypotheses. Data theory is detailed in Chapters 4 and 5, where the justification for the relevance and the validity of the research strategy and empirical evidence use to support this study are presented. Chapters 6 and 7 explain the contribution of this research to the discipline. A summary of the content of each chapter of this document is outlined below:

1.4.1 Chapter 1 – Introduction

In this chapter, the main area of research is introduced, specifying the background to the research, both in terms of KMC and SE research. Subsequently, the aim and objectives of the research, and the study contributions are defined. Lastly, an overview of the structure of the document and a brief summary of each chapter is presented.

1.4.2 Chapter 2 – Literature review

This chapter presents the systemic literature review developed to determine the theoretical foundation for achieving the research aims. Three different reviews are conducted looking specifically for Social Enterprises (SEs) and Knowledge Management (KM) literature. The first literature review explores the intellectual structure of the SE field, identifying the main schools of thought, definitions, and current understandings of the organisational characteristics and KM practices of this type of organisation. This permits the description of the main object of study in this research. The second review investigates theoretical and empirical studies

addressing KM in the broader spectrum of Social Economy organisations. The third review discusses knowledge as a resource, and KM as a capability, describing the different theoretical positions, and examining the theoretical and empirical models proposed to develop such capabilities.

1.4.3 Chapter 3 – Development of the Conceptual Model Knowledge Management Capabilities in Social Enterprises (KMC-SE)

To address matters raised in Chapter 2, this chapter presents a justification for the conceptual model, providing the theoretical basis for examining the development of Knowledge Management Capabilities and their relationship with Organisational Performance in SEs. The 'General method of theory-building research in applied disciplines' proposed by Lynham (2002) is followed for the development of the conceptual model and its first two stages are established in this chapter. The chapter sets out the elements of the conceptual model and their relationships based on SE and KM literature, the operationalisation of the model and the description of the hypotheses.

1.4.4 Chapter 4 – Methodology

The aim of this chapter is to link the proposed study to the research strategy implemented in this study, while reviewing the different methodological approaches. The chapter presents a justification of critical realism as the research paradigm, and mixed methods as the research strategy followed in this study. The research design that addresses the research aim is 'sequential explanatory' with two phases.

The first phase involves a quantitative study that assesses, tests and validates the conceptual assumptions proposed in the KMC-SE Conceptual Model, collected by a survey questionnaire addressed to senior members of self-defined SEs in UK. The quantitative data are analysed using the Confirmatory Factor Analysis (CFA) and Structural Equation Modelling (SEM). The second phase is a qualitative study that gives depth, and derives meaning to, the quantitative results. This phase involves in-depth qualitative interviews to participants of the first phase who were willing to participate in further research, and is analysed using coding strategies.

1.4.5 Chapter 5 - Data Analysis: Quantitative and Qualitative

This chapter provides the empirical analysis of the KMC-SE Conceptual Model developed in Chapter 3 using the research strategy described in Chapter 4. In the first part, the quantitative analysis of the obtained 432 survey responses is presented, conducting the CFA and SEM. Both analyses provide an initial validation of how the empirical data collected from members of SEs fit the theoretical assumptions of the KMC-SE Conceptual Model. The second part presents the

qualitative analysis of the data collected from 21 in-depth, semi-structured interviews, providing further explanation to the findings from Phase 1.

1.4.6 Chapter 6 – Discussion

Chapter 6 analyses, on a complementary basis, the main findings from Phase 1 and 2 and the KM and SE literature, resulting in the final explanation of each element of the KMC-SE Conceptual Model. This forms the basis for the elaboration of the assessed KMC-SE Model describing the process for developing KMCs that improve performance of SEs.

1.4.7 Chapter 7 – Conclusions and Recommendations for future research

This chapter provides a summary of this research and presents the conclusions, findings, main contributions and impact of this research. The limitations of the study, as well as the potential areas for further research are discussed. Three main contributions are presented as: a conceptual model that describes the development of KMCs in SEs; and an empirically assessed model that defines the elements that can develop KMCs in SEs and the expected outcome.

Chapter 2

Literature Review

This chapter presents the systemic literature review that provides the theoretical foundation of this study. Three separate, different reviews were conducted looking specifically for Social Enterprises (SEs) and Knowledge Management (KM) literature.

Section 2.1 describes the literature review strategy followed in this research. Section 2.2 describes the first review and aims to identify the intellectual structure of the field of SE throughout a bibliometric analysis. This identifies what practitioners and academics have studied regarding the management practices and organisational behaviour of SEs. The second review in Section 2.3 explores the literature available relating KM with Social Economy organisations. The third review in Section 2.4 aims to examine the theoretical grounding of the role of knowledge in organisations, from the Knowledge-based view (KBV) theory and Organisational Capability theory. This is followed by a full review of theoretical and empirical models for the development of Knowledge Management Capabilities (KMCs).

2.1 Literature review strategy - Systemic Method

In order to develop the main literature review for this research, it is important to (Machi and McEvoy, 2008):

i. identify the main objective of the research;
ii. define whether the research nature is deductive or inductive; and
iii. decide if the subject is based on strong theories, or more on assumptions.

As was presented in Chapter 1, the aim of this research is analysing the development of Knowledge Management Capabilities (KMCs) that improve organisational performance of SEs. The method of reasoning followed in this study presents both deductive and inductive standpoints, as introduced in Chapter 1 and further explained in Chapter 4 (Section 4.1 Page 98).

Research suggests two different approaches to undertake a literature review, a narrative review and a systemic review (Fink, 1998; Hart, 1999; Blumberg *et al.*, 2008; Machi and McEvoy, 2008). The first review relies on knowledge and experience to identify and interpret similarities and differences in the literature's purpose, methods and findings. This review is recommended for more inductive research. A systemic review is more related to deductive research and employs statistical techniques to combine the outcomes of separate studies.

As Tranfield *et al.,* (2003, p209) argued:

> *'….systemic review differs from traditional narrative review by adopting a replicable, scientific and transparent process, in other words a detailed technology that aims to minimize bias through exhaustive literature searches of published and unpublished studies and by providing an audit trail of the reviewers decisions, procedures and conclusions.'*

Taking into account the previous discussions, and because this research is evidence-based on SEs practices and their management behaviour, a **systemic review** is the most appropriate to be used in this study. This approach is considered useful in providing a more reliable foundation on which to design the research, because it is based on a more comprehensive understanding of what it is known about the subject (Bryman and Bell, 2007). However, it is relevant to know that this technique is not perfectly precise and the possibility of not covering all the relevant literature is present. The literature review strategy, using systemic review approach, is presented in **Figure 2.1**.

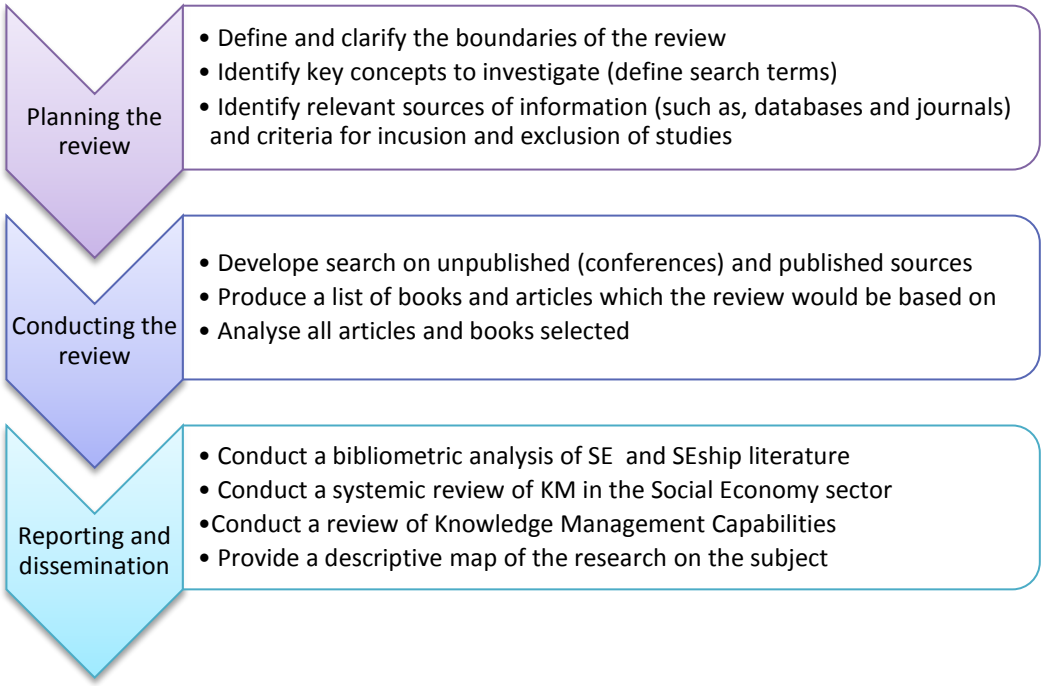


Figure 2.1 - Literature review strategy based on Tranfield *et at.* (2003)

Defining and clarifying the boundaries of the review allows the study to focus on the relevant literature of the subjects being researched. The unit of study of this research is SEs and the development of KMCs.

Subsequently, a list of search terms was established to narrow the search and also to facilitate the review process (**Table 2.1**). This list was developed based on the current knowledge of the different subjects, the use of the application Business Thesaurus from 'Business Source Complete' and a review of the main meta-analysis of KM literature (Ponzi, 2002; Croasdell *et al.*, 2003; Gu, 2004; Serenko and Bontis, 2004; Serenko and Bontis, 2009).

Table 2.1 - List of search items

Search terms	Related terms
Knowledge Management (KM)	Knowledge Management Capabilities Intellectual capital Knowledge sharing – Knowledge creation – Knowledge transfer Organisational knowledge Knowledge-based view theory
Social Enterprise (SE)	Social Entrepreneurship (SEship) Social Entrepreneur (SEneur) Community Interest Company (CIC) Social business / firms Community enterprise Citizen enterprise Cooperative enterprise Social purpose enterprise
Social Economy	Non-profit organisations Non-governmental organisations Charities Co-operatives Civic associations Credit unions Fair trade Housing associations Integrated cooperatives Voluntary organisations

The sources of information recommended by systemic review methodologies are public databases (van Leeuwen, 2006). One of the most important sources of information for analyses of the social sciences literature is the Social Science Citation Index, produced by the former Institute for Scientific Information (ISI) (van Leeuwen, 2006). However, some authors have argued that social science literature has a poor coverage on the ISI Web of Knowledge database, both in terms of the types of literature covered as well as in the range of the journals included (Glänzel, 1996; Hicks, 1999; Nederhof, 2006). Moreover, ISI has been criticised for its low reliability, for example, in terms of language and geography (MacRoberts and MacRoberts, 1989; Nederhof, 2006; Kousha and Thelwall, 2008; Sanderson, 2008; Harzing and van der Wal, 2009).

In addition to reliance on ISI source serials, Nederhof (2006) recommended the inclusion of non-ISI source serials and, if the analysis wants to monitor the utility of research, publications directed at a non-scholarly public. Following this recommendation, this research included two more databases related to Social Science literature and business, namely, 'Business Source Complete' and 'Science Direct'. In order to access publications directed to SE practitioners and academics, articles from 'Social Enterprise Journal' and 'Journal of Social Entrepreneurship' were also included. These are not indexed by the three databases consulted due to their early stage and small number of publications.

Three reviews were conducted using a different combination of search terms. This resulted in an integrated and representative literature survey that forms the theoretical standpoint of this research.

The first review looked specifically at SE literature. Since SE as an academic field is relatively new (Peattie and Morley, 2008), it is necessary to identify the intellectual structure of the field. This allows the evaluation of what subjects have been studied and how, and the main findings and discussions.

The second review investigated current research on KM within the Social Economy. SEs are part of the Social Economy organisations and share particular characteristics with them. Thus, this review explored what academics and practitioners have learned from managing knowledge in these type of organisations, recognising critical factors to be included in this research.

The third review drew upon two main theoretical streams, the Knowledge-based View (KBV) theory and Organisational Capabilities theory. This permitted the understanding of knowledge as a resource and capability. This includes the distinctive ways in which knowledge can lead to improvements in organisational performance, and the organisational elements that influence this improvement.

2.2 First systemic review - Social enterprise and Social Entrepreneurship literature

This review adopted a descriptive research approach by means of bibliometric analysis, which gave an overview of the intellectual structure of the field of Social Enterprise (SE). A bibliometric analysis is defined as '*the field of science that deals with the development and application of quantitative measures and indicators for sciences and technology, based on bibliographic information*' (van Leeuwen, 2004, p374). This methodology was selected due to the large body of literature available for its implementation and the use of scholarly databases.

Prior, similar, bibliometric analyses were found in the literature that proposed a first attempt to describe the behaviour of SEs as an academic field (Desa, 2007; Douglas, 2008; Short *et al.*, 2009; Hill *et al.*, 2010; Hoogendoorn *et al.*, 2010; Sassmannshausen and Volkmann, 2013). Nevertheless, as can be observed in Appendix A (Section 1 Page 273), all these studies were more focused on Social Entrepreneurship (SEship) literature, which, as will be explained later in this chapter, differs significantly for the concept of SEs employed in this research. What these papers had in common is the conclusion that SE and SEship literature is still in a development stage, where more formal, rigorous and empirical research methods are required.

2.2.1 Bibliometric study characteristics

The following two search terms were studied: 'Social Enterprise*' and 'Social Entrepreneur*'. At this point, both concepts are used in the review because some literature used them simultaneously (Hill *et al.*, 2010). The use of the asterisk (*), as a truncation symbol, allowed the databases to look for different endings of the word, for example, Social Enterprises or Social Entrepreneurship. Other words suggested by the literature, such as, community enterprise and social venture, were not included due to the initial purpose of this study and the pertinence to the central discussion. Therefore, only articles that explicitly mentioned any of the two words were searched.

Given that SE and Social Entrepreneurship are relatively recent research themes, the search included every article on the subjects and, hence, examined every possible year. Summarising, **Table 2.2** presents the general characteristics of the bibliometric study, which allows other researchers to replicate the study.

Table 2.2 - Characteristics of bibliometric study

Search words	'Social enterprise*' or 'Social entrepreneur*'
Development Date	September 2012
Databases	Business Source Complete (BSC), Science Direct (SD), Web of knowledge (ISI), Social Enterprise Journal (SEJ) and Journal of Social Entrepreneurship (JSE)
Search limitation	BSC, SD and ISI = Only academic journals

Entering the query for the search terms, a total of 1,343 bibliographic records were retrieved. Employing Bibexcel software, a tool-box for manipulating bibliographic data (Persson, 2002), the records were organised and selected according to the following filters: language (only English and Spanish papers, covering 98% of all records), duplicated records, journal articles, search words on Abstract, Title and Key words, and relevance to the study subject. Through these procedures a total of 284 relevant papers were selected. A detail description of the data reduction process is presented in Appendix A (Section 2 Page 274).

The last step in producing the final dataset was checking for missing papers by comparing them with the references listed in the articles mentioned at the beginning of this section, and described in Appendix A (Section 1 Page 273). Two papers were identified that needed to be added because they met the search criteria that has been applied. Other papers included in those articles were conference proceedings that were not studied by this bibliometric work.

2.2.2 Bibliometric analysis and discussion of Social Enterprise and Social Entrepreneurship literature

Following the analysis of bibliometric characteristics of the SE and SEship literature (See Appendix A Section 3 Page 276), an existing ascendant trend was confirmed on SE and SEship publications, with a remarkable increase within the last five years. This behaviour indicates how SEs and SEship are becoming emerging fields of interest for both academics and practitioners. Additionally, a similar pattern was identified for the concepts of SE, SEship and SEneur, evidencing that the concepts had not had different evolutions and could be found as synonymous in the literature.

In relation to authorship patterns in the SE and SEship literature, a significant tendency towards greater co-authorship suggested the expanded co-operation between researchers and research groups in the SE field. This could indicate a growth of specialisation, where academics and practitioners collaborated with others precisely because those others brought to the combined research different talents and skills, without which the project would be impossible (Rennie, 2001). Similar patterns were recognised in the analysis of authors' affiliations. The appearance of publications with academics and practitioners as joint authors, implied the awareness and intentions of developing theory that has a valuable input to the actual sector.

This study also shows the geographical spread of SE and SEship literature, and the internationalisation of the research. The existence of two groups, an European group with the UK as leader, and an Americas group with the USA as leader, is evident. This confirms the two different approaches that have been identified for SE study (Defourny and Nyssens, 2006; Kerlin, 2006; Dees, 2007; Hoogendoorn *et al.*, 2010). However, the pattern followed by multi-national authored publications (see Figure 3 in Appendix A Section 3 Page 276) presents an initial intention of bringing these two different approaches together, overcoming the conceptual barriers that have been identified on SE and SEship literature (Alter, 2003; Dart, 2004; Haugh, 2005; Defourny and Nyssens, 2006; Hockerts, 2006; Spear, 2006; Jones, 2007; Peattie and Morley, 2008; Mair and Marti, 2009; Robinson *et al.*, 2009; Teasdale, 2010). This represents a step forward to international collaboration with more emphasis on empirical research, analysing issues such as, community participation (Farmer and Kilpatrick, 2009), sustainability (Weerawardena *et al.*, 2010) and organisational behaviour (Smith *et al.*, 2010).

Despite these patterns, it is vital to recognise that there is still a long journey to go on internationalisation of SE research. For instance, two groups were identified in Figure 3 in Appendix A (Section 3 Page 276) that do not follow the main literature streams. These are Asian countries that emphasise their SE research by presenting their experiences on

community enterprise and social businesses, rather than focusing their contributions on more conceptual and definitional issues (Velamuri and Shanmugam, 2008; Salarzahi *et al.*, 2010).

These results support the statement presented by Kerlin (2009), who identified that part of the current difficulties in defining SE is the different geographical associations of the term 'Social Enterprise'. Different areas of the world have interpreted the term according to their distinct models and activities, making cross-regional discussion difficult. Furthermore, this regional development has meant that innovative ideas developed in one area are rarely known in other regions.

Another bibliometric indicator analysed was the publications' sources. For SE and SEship literature, the most productive journals were found in the business and management categories. The study of SEs under a business lens demonstrated how academics and practitioners are adding more effort to investigate the enterprise side of SEs, and leaving the social aspect to be studied to a minor degree by other schools. This concurred with Cook *et al.* (2003), who distinguished that SEship literature has less emphasis on the social and more on the entrepreneurial activities and abilities of individuals. Other disciplines, such as, economics, education and social science, although they have a close relationship with management and business categories, presented papers with the evident intention of exploring the other side of SEs, that is its social implication. As Mair and Martí (2006) suggested, the study and understanding of SEship cannot be developed only with an economic sense. SEship needs to be observed in the light of the social context and the local environment.

This analysis also identified the epistemological orientation of SE and SEship publications and their research strategy, suggesting the maturity of the field and serving as a reference in defining the methodology design of this research. The presence of more than 50% of the papers focusing only on conceptual issues might suggest that there is still a long way to go for SE academics and practitioners to achieve maturity in their research. Although the epistemological orientation pattern has seen changes in the last few years, with more empirical papers appearing since 2004, once the boundaries of SE definition become clearer the focus of its studies should include more empirical research that will allow testing and validating the theory. Together, theory development followed by empirical testing and validation will generate an increase in consensus on the boundaries of the field and its relevance, resulting in an increment on the visibility of SE research in key journals (Busenitz *et al.*, 2003).

By analysing the research strategy employed by SE researchers, similar conclusions were obtained on how academics and practitioners are building and testing theory. On one hand, qualitative research is used to build theory whereas quantitative research is used to validate it.

With more than 80% of the empirical papers employing qualitative methodologies, focusing on case studies, grounded theory and action research, it might be suggested that SE community is in a theory building stage. Quantitative research will become more prevalent as the SE community moves from theory building to theory validation.

Nevertheless, it was not surprising that SE literature presented more qualitative research, which has been recognised as being useful for exploring new topics and identifying the social norms of a society (Hennink *et al.*, 2011). Likewise, qualitative research has the advantage of allowing the construction of knowledge and theories facilitating the researcher to adapt to changing conditions. As was identified in a societal change literature analysis by Douglas (2008), the high use of qualitative research methods also points to a visible pattern of including the voices of Social Entrepreneurs. Obtaining information and building research based on SEneur experiences will reduce ambiguity, conceptual inconsistency and uncertainty in the data.

The extensive number of papers based on case studies also implied that SE researchers are more interested in studying SEs in their natural setting, generating theories from practice and investigating new perspectives. This research method suits SE research performance given the lack of common terminology and models, and will help to generate the accurate formulated theories necessary to advance the field (Benbasat *et al.*, 1987). Corresponding to Hoogendoorn *et al.* (2010) findings, it was surprising that this study only identified six papers using grounded theory, whereas a higher number would have been expected in this relatively new field. Incorporating this research methodology in SE research might help in showing to academics and practitioners the legitimacy of SE, and capturing the complexity of SE context (Locke, 2001).

Drawing upon these findings, it is possible to conclude that SE, as a scientific discipline, is maturing. As Serenko *et al.* (2010) defined, there are three indicators of this maturity process: changes in co-authorship patterns, inquiry methods and roles of practitioners. Regarding co-authorship patterns, the average number of authors *per* article in SE papers has been increasing since 2007 to a general average of 1.9, indicating maturity because, as Lipetz (1999) demonstrated, there is a positive relationship between the average number of authors *per* paper and the field's maturity. This might indicate that multiple researchers are taking part in each work in order to improve the quality, increase the level of specialisation and then increase the chances of future acceptance of publications. With respect to inquiry methods, SE literature presents almost half of the total number of papers of a descriptive and conceptual nature without any empirical support. This denotes a lower level of maturity of SE discipline, since there are still greater efforts on the theoretical foundation of the field.

However, a significant trend towards more empirical research was identified, with an average of a 30% increase in the number of empirical papers appearing *per* year in the last five years. This demonstrates that, gradually, SE researchers are testing empirically the theoretical principles of the field. In terms of the role of practitioners, the number of SE researchers coming from academia has been increasing proportionate to the number of SE publications. On the other hand, the participation of authors coming from non-academic institutions has tended slightly to decrease. Literature suggests that this phenomenon represents maturity of a specific field, since most of its works are currently written by academic researchers. Regarding this statement, this study suggest that a participation of practitioners in SE literature is still required, as Roberts and Woods (2005, p45) affirmed:

> *'The challenge for academia is to turn an inherently practitioner-led pursuit into a more rigorous and objective discipline. The challenge for practitioners is to raise more awareness, support and participation.'*

Overall, the bibliometric study described the evolution of both SEs and SEship as academic fields. It confirmed an upward trend in their academic production, corroborating that SEs, as a field of inquiry, is in a development stage. The study also identified a need for more empirical studies that probe theory. Nevertheless, researchers and practitioners have been undertaking important research, generating an original attempt to describe the SE sector, which will be discussed in the following section.

2.2.3 Social Enterprise discussions and theoretical findings

In order to integrate and summarise the SE and SEship research productions collected in the bibliometric study, this section presents an analysis of the different discussions exposed by literature, which defines the object of study of this research. At the end of this section, a review of literature relating Knowledge Management and SE is presented.

2.2.3.1 Origins

When studying Social Enterprise and Social Entrepreneurship, a researcher faced the well-documented and on-going discussion regarding their different meanings, connotations and characteristics. Nevertheless, academics and practitioners have concurred that, in some circumstances, the original appearance of Social Enterprises (SEs) and Social Entrepreneurship (SEship) is found within the Third Sector, known as Social Economy (Defourny and Nyssens, 2006). At this stage, SE and SEship, will be presented as one concept, though a clear distinction will be presented later.

Initially, it was argued that the Third Sector, Third Way or Social Economy, had originated as a rejection of neo-liberal models and their negative consequences for civil society (1998). This is

because those practices were not ensuring the welfare of all people and were only expanding the gap between rich and poor countries (Giddens, 1998). This new way was originated with the intention of rebuilding a strong society through community effort in partnership with government, but without the resource of an entitlement-based approach to social welfare (Mendes, 2000).

As Giddens (1998, p26) defined, the Third Way is:

> *'… a framework of thinking and policy-making that seeks to adapt social democracy to a world which has changed fundamentally over the past two or three decades. It is a third way in the sense that it is an attempt to transcend both old-style social democracy and neo-liberalism.'*

Presenting the same idea, but referring to Social Economy, other researchers had associated the concept to socio-economic organisations and activities that belong to the group of human organisations, interacting between the public and private sector (Spear *et al.*, 2001; Jones and Keogh, 2006).

SE and SEship, within the Social Economy, represent another step in the continuing re-invention of the 'third sector' (Dees, 2007). They derive their distinctive advantages from a renewal of traditional forms of the social economy, referred to as the 'new social economy' (Spear *et al.*, 2001).

When identifying the origins of SE and SEship as part of the Social Economy, various theories have been adapted to explain their emergence. However, they are used to refer to different phenomena. Some academics have argued that these differences vary within social, economic and political contexts (Kerlin, 2009; Teasdale, 2010). Here, three critical conditions are mentioned, which could have helped to generate the emergence of SE organisations and SEship in both developed and developing countries:

i. Public sector failure: There has been a widespread perceived lack of confidence in the actions of public sector organisations and dissatisfaction with government (Kerlin, 2009). This dissatisfaction has been caused mainly due to its bureaucracy, inefficiency, waste of money, expenditure on controversial items, and opposition to innovation. These have left a civil society that is looking for an answer in the Social Economy to solve social problems that are not being covered by the public sector (Nye *et al.*, 1997; Dees, 2007);
ii. Private sector failure: The private sector and its capitalist models have, until now, tended to focus on the necessities of the owners and shareholders – a model which is now risking their economic future under current circumstances (Yunus *et al.*, 2003). Recently, some organisations have started to search for a balance for all of their stakeholders, and are concerning themselves more with social matters. Therefore, they are generating

alternatives such as Corporate Social Responsibility, or are creating social initiatives that have their origins within the private sector and have developed into independent SEs. Although Social Responsibility is undeniably important, it is not equal to SE or SEship; and

iii. Non-profit sector failure: As Muhammad Yunus (2003, p249) said, '*charity becomes a way to shrug off our responsibility. But charity is not solution to poverty. Charity only perpetuates poverty by taking the initiative away from the poor* '. The context in which non-profit organisations are operating is rapidly changing due to increasing globalisation and growing competition for grants and donors. This has forced them to assume a competitive position and introduced innovation to create value (Sullivan Mort *et al.*, 2003).

These three statements present a complete and revealing condition of SE and SEship as an independent actor in economic, political and social realities. It is clear how SE and SEship originate from an obvious rejection of the current system, where public, private or non-profit sectors were not alleviating the current problems of modern societies. Hence, SE and SEship has been identified as a potential solution to blur the long-established boundaries among these three sectors (Fayolle and Matlay, 2011). They are becoming a hybrid sector, where characteristics from the public, private and Social Economy sector were presented, but at the same time independent conditions and characteristics were conserved. It is at this point that both concepts, SE and SEship, started to present different characteristics and distinction for academics, practitioners and even geographical areas.

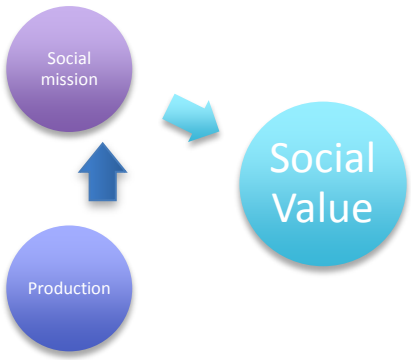
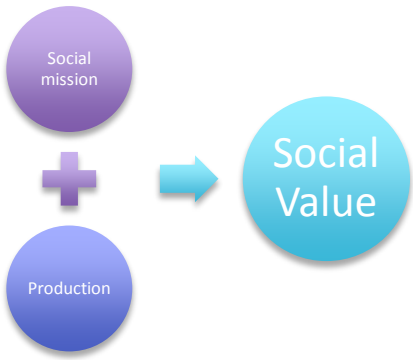
2.2.3.2 Definitions

A significant amount of literature has been written in relation to SE and SEship definitions[1], as was confirmed in the bibliometric study. The parallel and similar evolution that both concepts have had in the past two decades confirms the close relationship between them. The use of both words interchangeably was a normal practice assumed by some authors, probably because they were not yet completely defined concepts (Galera and Borzaga, 2009; Brouard and Larivet, 2011). However, SE and SEship have been studied by academics and practitioners in the last two decades, mostly with separate perspectives. The appearance of works comparing and contrasting them has only reached the international academia in the last few years (Dees and Anderson, 2006; Kerlin, 2006; Chell, 2007; Galera and Borzaga, 2009; Defourny and Nyssens, 2010). One important contribution on analysing this confusion between SE and SEship was introduced initially by Dees and Anderson (2006) and then

[1] It is important to indicate at this stage that SE and SEship have parallel terms identified in the literature, referring in some cases to the same concept but employing different titles to express it. For example, the most common terms found in the literature and the bibliometric study were: community entrepreneurship, social change agents, institutional entrepreneurs, social ventures, entrepreneurial non-profit organisations, social innovations, cooperative enterprise, social purpose enterprise and social business. For the purpose of this research, only the concepts Social Enterprise, Social Entrepreneurship and Social Entrepreneur are used.

developed with more detail by Defourny and Nyssens (2010). The initial proposal was two different schools of thought that are presented in the current discussions related to SE and SEship fields, namely: the 'Social Enterprise' or the 'Earned Income' school of thought, and the 'Social Innovation' school of thought. Defourny and Nyssens (2010) divided the former between 'commercial non-profit approach' and 'mission-driven business approach'. The characteristics for each school are presented in **Table 2.3** with the convergences and divergences identified in the literature.

Table 2.3 - Schools of thought on Social Enterprise and Social Entrepreneurship literature

<table>
<tr><th>Schools of thought</th><th colspan="2">The Social Enterprise or
The 'Earned Income'</th><th>The 'Social Innovation'</th></tr>
<tr><td>Origins</td><td colspan="2">Non-profit organisations
Private for profit sector</td><td>Non-profit organisations
Private for profit sector (CSR)
Public sphere</td></tr>
<tr><td>Concept associate</td><td colspan="2">Social Enterprise</td><td>Social Entrepreneurship / Entrepreneur</td></tr>
<tr><td rowspan="2">Definition</td><td colspan="2">Social enterprise defined by earned-income strategies, refers to the use of commercial activities by non-profit organisations in support of their mission.</td><td rowspan="2">Social entrepreneurs are defined as change makers as they carry out 'new combinations' in at least one the following areas: new services, new quality of services, new methods of production, new production factors, new forms of organisations or new markets.</td></tr>
<tr><td>'Commercial non-profit '
Focusing on non-profits</td><td>'Mission-driven business'
All forms of business initiatives</td></tr>
<tr><td>Motivations</td><td colspan="2">Social value</td><td>Social value and innovation</td></tr>
<tr><td>Trading vs. Social Mission</td><td colspan="2">Trading activity is often considered only as a source of income. Any profit is allocated to the fulfilment of the social mission.
  </td><td>Trading activity (production) constitutes the way in which the social mission is persuaded. This conveys a further discussion whether any social value created by a private company is really SEship or Corporate Social Responsibility.
  </td></tr>
<tr><td rowspan="2">Governance</td><td colspan="3">SEs are governed by them, obtaining autonomy, where decision making power is not based on capital ownership.</td></tr>
<tr><td>'Commercial non-profit '
Non-profit with no distribution of surplus</td><td colspan="2">'Mission-driven business' – Social innovation
SE can adopt any legal form, which means that may distribute surpluses to shareholders</td></tr>
<tr><td>Geographical context</td><td colspan="2">Europe</td><td>USA</td></tr>
<tr><td>Legal form</td><td colspan="3">Depends on each country. It is a strategic decision, not a defining characteristic.</td></tr>
<tr><td>Common purpose</td><td colspan="3">Enterprising social innovation</td></tr>
</table>

Source: originated by the author based on (Dees and Anderson, 2006; Chell, 2007; Galera and Borzaga, 2009; Defourny and Nyssens, 2010)

Convergences and divergences were identified in Dees and Anderson (2006) and Defourny and Nyssens (2010). Because each pair of authors came, respectively, from the US and European schools of thought, it was evident how each publication supported and gave more importance to their respective school. This confirms that each approach is partially attributed to the specific context in which concepts were formed. Despite these divergences, it can be highlighted that the term Social Entrepreneurship has a wider spectrum than SE (Defourny and Nyssens, 2010) (see **Figure 2.2**).

Figure 2.2 - Sector's relation with Social Enterprise and Social Entrepreneurship

The internationalisation of both concepts, SE and SEship, has influenced some researchers to analyse geographical differences concerning the fields, beyond the common distinction between USA and Europe. For instance, Kerlin (2009; 2010) formulated a framework with four elements that associate SEs with a given society socio-economic context. Drawing upon the Salamon *et al.* (2000) social origins approach, the four factors are:

i. Civil society;
ii. State capacity;
iii. Market functioning; and
iv. International aid.

Depending on the strength or weakness of these factors in the surrounding context of a SE, Kerlin classified various regions' independent models. For example, United States and Western Europe, where respective civil societies provided initial innovative ideas for SE activities, differentiated from each other basically because of a long tradition of market reliance in the former and state intervention in the latter. In the case of East-Central Europe, high levels of international aid were a source of support for a small but growing SE sector. Latin America presented a civil society that completely defines SEs, producing innovative ways of satisfied needs not covered by the state, the market or international aid.

With a different framework, but similar results, Mair (2011) concluded that the socio-economic context influences the 'Why?', 'What?' and 'How?' of a SE's actions. In other words, the context defines the origins and motivations of SE, the difference among social objectives and the ways of undertaking SEship practices. All these differences in concepts of SE and SEship have resulted in difficulty communicating the topic and missed opportunities to learn and build on foreign experience.

To understand the distinctions between the two schools of thought studying SE and SEship fields, this study went through all the bibliometric dataset to identify how SE and SEship researchers had defined these concepts. Appendix A (Section 4 Page 285) presents two tables including the school of thought, author, country and theory base of each definition.

According to the socio-economic context in which this research is undertaken, the UK, the concept of SE is been assigned as the unity of study of this research. Social Entrepreneurship attributes are included as an integrated component of a SE, which is led by a Social Entrepreneur. The following section discusses in more detail the definition of SEs.

Social Enterprise (SE)

Social Enterprise has been studied and interpreted mainly by the 'Earned income school of thought'. However, trying to define a SE is a complex problem, partially because of two reasons. The first one is related to geographical issues. Even under the same school of thought that is originated initially in Europe, SEs are presented and delivered in different political, economic and social contexts. This shapes and varies their processes, motivations and, even, legal forms. A second reason is because of the nature of the organisation, income generation methods, and the multitude of services they provided. These difficulties have led to a continuous and never-ending debate among practitioners and academics over the exact definition of SE. This has generated conflicts in measuring its activities, comparing its results, and transferring innovative solutions and experience from one another (Alter, 2003; Dart, 2004; Haugh, 2005; Defourny and Nyssens, 2006; Hockerts, 2006; Spear, 2006; Jones, 2007; Peattie and Morley, 2008; Mair and Marti, 2009; Robinson *et al.*, 2009; Teasdale, 2010).

A decisive attempt to overcome the difficulties of defining SE was generated by the European Research Network of Social Enterprises (EMES). Created in 1996, EMES was formed by researchers from the fifteen of the member states that formed the European Union (EU) at that time. Their objective was to develop a leading research network, focused on the study of SEs and Social Economy organisations.

As a result of this effort, EMES produced four factors and five indicators that permit the identification of economic and entrepreneurial patterns among SEs (Defourny, 2001). These are:

i. Factors:
   - A continuous activity producing goods and/or selling services. The provision of services represents, therefore, the reason, or one of the main reasons, for the existence of SEs;
   - A high degree of autonomy. Although they may depend on public subsidies, public authorities or other organisations, such as federations and private firms, they do not manage them, directly or indirectly;
   - A significant level of economic risk. The financial viability of SE depends on the efforts of their members and workers to secure adequate resources; and
   - A minimum amount of paid work. SEs may combine monetary and non-monetary resources, voluntary and paid workers. However, the activity carried out in SEs requires a minimum level of paid workers.

ii. Indicators:
   - 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, which means the representation and participation of customers, stakeholder orientation and a democratic management style;
   - Limited profit distribution, avoiding a profit-maximising behaviour; and
   - An explicit aim to benefit the community.

Some of these characteristics of SEs defined by EMES offered singularities that are strictly related to the 'Earned Income' school of thought. SEs, under EMES definition, are more related to alleviate social problems within local communities, supplying necessities not provided effectively by other sectors.

In accordance with these European general indicators of SEs, other European authors have presented similar categorisation of SEs. For instance, Chell (2007) proposed two different models of SE:

i. The first model highlights pro-social motives that drive the mission and produce social outcomes, with a surplus that may be re-invested in the enterprise, assuring its sustainability; and

ii. An alternative model where SE's outcomes are divided between social benefits and wealth generation, which is used to invest in the enterprise, assuring its sustainability.

These models introduced the necessity of surplus generation among SE's activities. The concept of auto-sustainability of SEs goes further to imply that SEneurs need to increase their income production. This may guarantee not only surviving and satisfying actual necessities, but to secure a long-term existence.

The UK government, as the reference country in this research, has been aligned to this characteristic on defining SEs, producing the following definition that regulates and leads the British sector:

> *'A business with primarily social objectives whose surpluses are principally re-invested for that (social) purpose in the business and the community, rather than being driven by the need to maximise profit for shareholders and owners'* (DTI, 2002, p13).

In line with this definition, and including qualities of entrepreneurship in SE leaders, Chell (2007) deduced the following attributes of SEs:

- Behave entrepreneurially to engage in processes that create value, which can be economic and social, embedded within a socio-economic context;
- These values serve the following purposes:
    - Economic value: position the SE enterprise among competitive enterprises, and it generates wealth that is to be used to support the social mission, or re-invest in the community;
    - Social value: solve social problems; and
- Its outcomes must be sustainable. Although some enterprises may rely on grants, particularly when the beneficiaries cannot pay, SEs are likely to include a mix of resource. This is a commercial component, probably 'voluntary', or in-kind contributions and possibly donations and grant aid, which together help to ensure future sustainability, particularly in its early years.

Considering the key elements presented below, the definitions found in the bibliometric dataset (see Appendix A Section 4 Page 285), and the necessity of a conceptual framework for this research, the following definition of SE is used:

Social Enterprise is an organisational form with primarily social drivers that undertakes innovative business operations in order to be auto-sustainable and guarantees the creation, sustainment, distribution and/or dissemination of social or environmental value. Therefore, economic drivers are means to a social end, not the end in itself.

It has been argued that a SE does not necessarily require the entrepreneurial attributes that its counterpart SEship has (Dees and Anderson, 2006). However, this research recognised that it is crucial to develop entrepreneurial skills that brings to the SE the strengths to compete in public and private markets. Additionally, SE requires innovation processes among its activities that can foster the creation of new ways of meet its social mission. As Dees and Anderson (2006) defined, SE without some element of innovation would become just a sub-topic in a broader theory of non-profit finance. Another element from this definition is the absence of any reference to legal forms that SE must assume. Even though the distinction of SE in many countries is associated with specific legal forms, these forms can change across different countries and contexts.

Overall, the economic, social and political value of SEs is demonstrated by the increasing interest within public policy decisions. This is emphasised by the increasing public investment in promoting and supporting them, such as, Big Society Capital and Triodos Bank. Despite this, the bibliometric analysis developed in this research and other SE contributors agreed that SEs remain an under-researched phenomenon (Haugh, 2005; Jones, 2007; Peattie and Morley, 2008; Robinson *et al.*, 2009; Shah, 2009; Muñoz, 2010).

2.2.3.3 Knowledge Management in Social Enterprises

Having described the concepts and theories of SEs, the following section reviews the research agenda in the area of Knowledge Management (KM) in Social Enterprises (SEs). This will permit the explanation and demonstration of the current gap in the literature that this study will help to fill.

A large body of literature exists on the study of KM in both the private and public sectors (Wiig, 1995). However, academic research into the application of successful KM strategies in the Social Economy organisations has received only minor attention and is not easily translated into their dynamic structure (Stewart, 1997; Davenport and Prusak, 1998; Bouthillier and Shearer, 2002; Capozzi *et al.*, 2003; Lettieri *et al.*, 2004; Andreasen *et al.*, 2005; Kong, 2008). One of the reasons for this is that public and private organisations have the possibility of assigning resources, using their well-known interest for innovation and development. This allowed them to obtain comparative and competitive advantages in the world-wide market. These are resources that the Social Economy sector and SEs lack.

Searching the dataset of SE and SEship papers, the phrase ‘Knowledge Management’ and synonymous terms appeared only on a few occasions. The papers identified were all focused on Social Entrepreneurship as an activity and, as was described in previous sections, this is not what this research is investigating.

For instance, Meyskens *et al.* (2010b) identified the importance of KM in Social Ventures based on an exploratory study of the profiles of Ashoka Fellows applying a resource-based view. They recognised that, in particular with the Ashoka Fellows network, the ability to replicate the knowledge created by the SEneur was key in expanding their results and giving strength to the venture. Moreover, the authors found that the management of partnerships and innovation in a Social Venture depended on how deeply KM practices were embedded within the organisation, and how easily this knowledge could be transferred. Despite the importance of these findings, the methodology was based on secondary data from online profiles of 70 social entrepreneurial Asoka Fellows. This did not present reliable and accurate information of social venture activities and current processes, since these profiles were unstructured and based on Fellows' applications to be included in the network.

In another paper, Meyskens (2010a) proposed a conceptual model, using a resource-based view, on how SEship ventures collaborate with other organisations in a network to fulfil resource requirements. One of these is intangible resources, such as, tacit knowledge. Based on an exploratory study, authors identified that Social Ventures can share intangible resources, such as, knowledge and human capital, with government, in the form of grants and contracts. Moreover, they can obtain intangible resources from other Social Ventures, which share how best to serve a niche group from the community. These findings demonstrated that Social Ventures can position themselves with governments as providers of human capital with intangible knowledge of the community. This confirms the importance of external organisations and institutions in levering knowledge within a SE.

Another association of KM in SEship research was identified in the Bloom and Chatterji (2009) 'SCALERS' model. Among its seven organisational capabilities that can stimulate successful scaling by SEship organisations, the author included 'replicating'. The paper recognised that a SE requires to pay attention to relationship building and communication between internal and external stakeholders in order to scale more effectively.

Although the research of KMCs and KM in SEs is scarce, SE literature presents significant empirical research that describes some organisational characteristics that would influence the development of KMCs within SEs. These characteristics are studied with more detail in Chapter 3.

2.3 Second systemic review: Knowledge Management in the Social Economy literature

This section presents the current activities of Knowledge Management (KM) studied and implemented in Social Economy organisations. Social Enterprises (SEs) have emerged as a

business-like contrast to the traditional **non-profit organisation (NPO).** Thus, the study of KM applications on the Social Economy sector will give a perspective on the current situation and practices of KM in SEs.

Following the systemic review strategy presented at the beginning of this chapter, a literature search was undertaken employing online databases using combinations of the search terms defined in **Table 2.1** (Page 12). A total of 68 papers were identified, with 59 connecting Social Economy specifically to KM, six with Intellectual Capital and three with Organisational Knowledge. A relationship table summarising these papers is presented in Appendix A (Section 5 Page 288).

Under the current economic environment, NPOs have been forced to adopt more management approaches that have been successful in the for-profit sector, such as KM (Andreasen *et al.*, 2005; Hume and Hume, 2008; Kipley *et al.*, 2008; Bezjian *et al.*, 2009). However, there is an on-going debate as to whether NPOs are unique and have different practices from the private and public sector (Nutt and Backoff, 1992) or, instead, the distinctive characteristics of NPOs do not prohibit the application of successful private and public practices (Moxham, 2009). Whether the application is assumed or not, other authors argued that developing and implementing practices, such as KM, could significantly increase the already challenging financial and operational difficulty on Social Economy organisation and threaten the organisation's operational viability (Hume and Hume, 2008).

All these debates make the study of KM strategies in the Social Economy organisations a challenging task, even though these organisations are considered as knowledge-intensive bodies (Capozzi *et al.*, 2003; Lettieri *et al.*, 2004; Murray and Carter, 2005). This attribute is given because of the essence of their activities, such as evaluating grants or developing policy reports, which depend mostly on the use of human and intellectual capital. However, often within NPOs, there is a lack of practical explicit knowledge in how to procedurally correct and manage those activities (Kipley *et al.*, 2008) and the knowledge could be often fragmented, heterogeneous, unstable and rarely formalised (Lettieri *et al.*, 2004; Hume and Hume, 2008).

In addition to procedural constraints, studies have identified other characteristics of the Social Economy Sector that could limit their possibilities of implementing KM strategies (Andreasen *et al.*, 2005). One characteristic is associated with its organisational culture. NPOs support most of their key processes using volunteers, who have different motivations from paid workers and are often more difficult to manage (Hume and Hume, 2008). Moreover, paid full-time employees are different from those found in equivalent positions in the private or public sector, because, on average, they earn lower salaries and are more concerned with their organisation's mission that in being competitive, or business-like (Andreasen *et al.*, 2005). A

second characteristic is related to performance management. Since NPOs have a largely volunteer workforce, performance management has not the same visibility, influence and impact as private sector (Hume and Hume, 2008). A third characteristic is the financial constrains that NPOs faced, which might limit, among other activities, the investment on IT solutions. As Hume and Hume (2008) concluded, the decision to finance projects such as KM developments is related to cost-benefit trade-offs between providing the functions that support the social mission and innovating operation process and practice to enable those functions. A fourth characteristic was recognised by Reilly (2009), who analysed case studies in NPOs in Australia, and found the following barriers to using knowledge efficiently:

- Resistance to greater information-sharing;
- Inadequate understanding of the information and knowledge that already exist; and
- Inadequate understanding of the types of information and knowledge that IT is capable of generating.

In spite of these limitations, contributors have agreed that there are some benefits that Social Economy organisations could obtain by managing their knowledge more effectively (Capozzi *et al.*, 2003; Lettieri *et al.*, 2004; Hume and Hume, 2008; Kipley *et al.*, 2008; Kong, 2008; Bezjian *et al.*, 2009; Reilly, 2009). These are presented in **Table 2.4**.

Table 2.4 – Benefits of KM for Social Economy organisations

Benefit	Description
Stakeholders' relationships	Confirm public legitimacy in order to receive current and future support from their stakeholders, in terms of reputation and confidence
Economic benefits	Lower costs by identifying low value, redundant, and poorly performing processes
	Lower the cost of administration, and invest in more effective strategies for social change
	Reduce costs by decreasing and achieving economies of scale in obtaining information from external providers
Organisational performance	Focus on resource optimisation and utilisation
	Knowledge asset optimisation and competitive knowledge development
	Enable the organisation with the information for a proactive response to surprise environmental challenges
	Improve the long-term effectiveness of their grants
	Lessen the loss of intellectual capital from people leaving the company
	Build the institutional memory that would support its future works
	Develop an empowered capability to create social value, from the ability to translate into practice all the experience developed during the previous years
	Obtain greater transparency by sharing results and conclusion with others in a coherent, documented, and usable format
Strategy	Achieve levels of competitive advantage through processes and quality
	Provide knowledge-based competitive advantage, which is non-imitable, thus is a source of long-term organisational advantage
	Improve their strategic performance, particularly competitive positioning for donor appeal, staff retention and service strategy and delivery
	Re-focus their objectives regarding social dimensions, which are sometimes distorted by operating in commercial contract environments under the public sector reform movement
	Develop decision making capacity
	Improved the ability to maintain in the medium and long term coherence between the vision and the short-term programmes

For the full acquisition of these advantages and opportunities that KM provides, Hume and Hume (2008) argued that the most important factors to be considered when proposing a knowledge strategy for NPOs are:

- Communication channels;
- Funding;
- Informal communication networks; and
- Leadership and culture.

To identify how these benefits and factors can actually guarantee the successful transfer of KM strategies from the NPOs to SEs, it is required to study successful and unsuccessful experiences documented in literature. Notwithstanding, it is not a common practice for academics and practitioners to document unsuccessful cases. In consequence, this review took account of three successful implementations of KM in NPOs (see **Table 2.5**).

Table 2.5 - Application of KM on Social Economy institutions

Social Economy Institution	Knowledge problem	KM solution	Created value
Annie E. Casey Foundation www.aecf.org (Capozzi *et al.*, 2003; Enright, 2005)	New staff did not have an adequate understanding of the Foundation's best practices. The already existing knowledge was not being managed and was being threatened with diminishing.	Five steps to implement KM on NPOs: – Establish a hypothesis for objectives and outcomes; – Conduct an assessment to understand better knowledge supply and demand; – Design and implement pilots to test early hypotheses and learn critical implementation issues; – Integrate lessons into a comprehensive KM strategy; and – Develop a realistic implementation plan over define time periods.	Reduced production cost Institutional memory
World Health Organisation (WHO) logistic function (Kipley *et al.*, 2008)	Determining the most efficient and rapid method of shipment of anti-viral drugs from one African nation to another	Program members share information via a variety of knowledge sharing tools such as: online discussions, web videos, and 'face-to-face' meetings. These meeting bring out the best practices with all groups when dealing with logistical issues.	Knowledge–based competitive advantages
Charles and Helen Schwab foundation (Culwell *et al.*, 2004)	To develop expertise in social areas, the NPO needed to master the existing wisdom and acquaint themselves with individual experts, leaders of organisations, policymakers, and community members affected by these issues	– Make research services available to staff to help them find new sources for information in their program areas as well as answers to questions; – Disseminate by e-mail weekly compilations of local, regional, and national news in each of their program areas to keep staff and external stakeholders apprised of developments in their fields of work; – Develop a flexible array of evaluation tools and services to track their outcomes, ranging from internally generated surveys to more extensive evaluation services provided by external experts; – Promote habits, such as group reflections during team meetings, that contribute to the assessment of on-going work or the review of completed projects; – Encourage regular postings to their intranet to update one another on their work and activities and then deploying critical information to their public Web site; and – Archive meeting notes and program and evaluation reports on the intranet so the information is readily accessible to all staff and can also be shared externally as appropriate.	Enhanced accountability to board and community. Greater transparency Savings of time and money. Decisions informed by key stakeholders. An ability to measure results and demonstrate value.

Further to these successful implementations of KM in NPOs, it is evident how these organisations are obtaining positive outcomes by managing effectively their knowledge, without incurring very expensive solutions, such as ICT systems. These practices will be important when defining possible strategies for developing KMCs in SEs.

2.4 Third systemic review: Knowledge Management Capabilities

As was explained in Chapter 1, the aim of this study is to determine the organisational conditions and knowledge activities that develop KMCs in SEs. To support this, it is necessary to determine the theoretical grounding related to knowledge, and Knowledge Management Capabilities (KMCs), from the perspective of Knowledge-based View (KBV) theory and

'Organisational Capabilities' theory. Thus, this section starts by identifying knowledge as a resource in organisations and, subsequently, how this resource can be transformed into a capability for the enterprise. Based on these discussions, a further review of the KBV theory is presented. Lastly, a definition of KMCs in SEs is proposed for this study, in combination with an evaluation of the different models proposed in the literature to develop such capabilities.

2.4.1 Knowledge as a resource

Knowledge in an organisation has been defined in the literature from various perspectives, such as economics, sociology, technological systems and business. Nonaka (1994) recognised that knowledge is a multi-faceted concept with multi-layer meanings, where finding a meaning of knowledge is a never-ending search. Nevertheless, the discussion of knowledge definitions normally started by considering the discrepancy between knowledge and information. Literature exhibited the following hierarchy of knowledge (Davenport and Prusak, 1998; Croasdell *et al.*, 2003; Kakabadse *et al.*, 2003):

1. **Data:** discrete, objective facts about events that records transactions. Symbols used to represent something;
2. **Information:** symbols structured in such a way as to provide meaning to the seeker;
3. **Knowledge/realisation:** meaning based on personal interpretation of inputs from experience, recognition, intellect and perspective;
4. **Understanding/reflexion:** the knowledge must be connected in some way in order to generate insight; and
5. **Learning/wisdom:** through true understanding allowing the ability to foretell events.

Adapting the previous hierarchy to a more managerial and organisational version, Davenport and Prusak (1998, p5) combined the last three levels as 'knowledge' and defined it as:

> *'… a fluid mix of framed experience, values, contextual information, and expert insight that provides a framework for evaluating and incorporating new experiences and information. It originates and is applied in the minds of knowers. In organisations, it often becomes embedded not only in documents or repositories but also in organisational routines, processes, practices, and norms'.*

This definition integrated the different dimensions of knowledge in an organisation, defining some of its most important characteristics, such as the intangibility and uniqueness that represents one of the major difficulties for its creation and management. To explore the particularities of how knowledge creation takes place, Nonaka and Takeuchi (1995) proposed two different dimensions, the 'ontological dimension' that identifies an individual, group, organisational and inter-organisational knowledge, and the 'epistemological dimension' that differentiates between tacit and explicit knowledge. These are explained as follows:

- *Ontological dimension:* an organisation cannot create knowledge without individuals and it is a company's responsibility to support creative individuals, or provide them with the context within which they can create knowledge. Therefore, the company amplifies the knowledge created by individuals and integrates it with the knowledge network of the organisation, expanding it to intra- and inter-organisational levels and boundaries, for example, customers, suppliers, distributors and competitors (Hedlund, 1994; Nonaka, 1994).
- *Epistemological dimension:* Polanyi (1966) defined explicit knowledge as the knowledge that is transmittable in formal, systematic language. On the other hand, tacit is knowledge with a more personal and context-specific quality, which makes it hard to formalise and communicate (See **Table 2.6**). Authors have used this epistemological dimension differently. For instance, Grant (1996b) associated the tacit knowledge with 'knowing how', and explicit knowledge with 'knowing about' facts and theories. Similarly, Spender (1996) differentiated knowledge from 'knowledge about' and 'knowledge of acquaintance' and Kogut and Zander (1992) named them 'information' and 'know-how'.

Table 2.6 - Epistemology dimension of knowledge

Characteristic	Author	Tacit knowledge	Explicit knowledge
Content	(Polanyi, 1966; Nonaka, 1994)	Non-codified	Codified
Articulation	(Spender, 1993)	Difficult	Easy
Location	(Polanyi, 1966)	Human brains	Computers, artefacts
Quality, speed cost of transfer	(Grant, 1996b)	Slow, costly and uncertain	Fast, maybe costly, accurate

Source: Adapted from Jasimuddin *et al.*(2005)

Even though a main distinction between both types of knowledge is clear, Nonaka and Takeuchi (1995) suggested that explicit and tacit knowledge are not totally separate but mutually complementary entities. In this way, some authors had developed different perspectives on the relationship between tacit and explicit knowledge. Schultze and Stabell (2004) presented the following four discourses:

- *Neo-functionalist:* knowledge is viewed as an asset that can be owned, bought and sold to increase the company's competitive advantages;
- *Constructivist:* suggested that tacit and explicit knowledge are mutual constituted;
- *Critical:* regards knowledge as an entity that can be separated into tacit and explicit elements; and
- *Dialogic discourse:* regards all knowledge, both tacit and explicit, as discipline, where

tacit is a more effective form.

Conflating those discourses into just two, Hislop (2009) defined a practice-based and an objectivist perspective. The former is embedded in the majority of current literature on KM (Hedlund, 1994; Nonaka, 1994; Leonard-Barton, 1995; Stewart, 1997; Davenport and Prusak, 1998; Pan and Scarbrough, 1999; Roberts, 2000), and suggested that explicit and tacit knowledge are two separate types of knowledge. Instead, the latter recognised that knowledge has both tacit and explicit components (Kogut and Zander, 1992; Spender, 1993; Hedlund, 1994; Blackler, 1995; Tsoukas, 1996; Lam, 1997; Cook and Brown, 1999; Jasimuddin *et al.*, 2005; Hislop, 2009).

The discussion below emphasises the intangibility characteristic of knowledge, its different dimensions, and where it resides. From a different perspective, related more with the uniqueness characteristics of knowledge, Grant (1996b) proposed that, based on the concept that knowledge resided within the individual, the primary role of the organisation was knowledge application rather than knowledge creation. To obtain this application and create value for the organisation, Grant identified the following characteristics of knowledge that have critical implications for management.

- Transferability: is defined in terms of the critical distinction of knowing how, which Grant defined as tacit knowledge, and knowing about, defined as explicit knowledge. This distinction lies in transferability and the mechanisms for transfer across individuals, space, and time. The explicit knowledge then is revealed by its communication, and tacit knowledge is revealed through its application;
- Capacity for aggregation: depends on the ability of the person who received the knowledge to add new knowledge to existing knowledge. To enhance this process, it is required to express it in terms of a common language;
- Appropriability: is the ability of the 'owner' of knowledge to receive a return equal to the value created by that knowledge;
- Specialisation in knowledge acquisition: it is recognised that the human brain has limited capacity of acquired, store and process knowledge. Therefore, to obtain efficiency in knowledge production, it is required that individuals specialise in particular areas of knowledge.

These characteristics are more associated with the management and operationalisation of knowledge, whereas the first part of the discussion was more related to knowledge's philosophical and conceptual dimensions. These two dimensions inferred the intangibility and unique characteristics of knowledge resources.

2.4.2 Knowledge Management as an organisational capability

The understanding of knowledge as a resource has been supported by the 'resource-based view of the firm'. This theory identifies resources as being 'tangible' and 'intangibles', including people skills and organisational processes and capabilities (Wernerfelt, 1984; Wernerfelt, 1995). However, Grant (1991) argues that there is a key distinction between resources and capabilities. Resources are inputs into the production process, including tangibles, such as capital equipment, and intangibles, such as skills of individual employees and brand names. As resources by their own are not productive, they require the cooperation and coordination of teams of resources. Therefore, Grant (1991) defined capability as the capacity for a team of resources to perform some task or activity resulting in competitive advantages for the firm. Nevertheless, the development of capabilities implies not only assembling a team of resources, but also involves the complex patterns of coordination among people and between people and other resources. Hence, Grant (1996a, p377) defined organisational capabilities as '*a firm's ability to perform repeatedly a productive task which relates either directly or indirectly to a firm's capacity for creating value through effecting the transformation of inputs into outputs*.'

Kusunoki *et al.* (1998) identified the following three characteristics of organisational capabilities:

- Organisational capabilities are not easily obtainable in the marketplace and are difficult to copy;
- Organisational capabilities are accumulated through long-term and continues learning; and
- Organisational capabilities have the potential to become a source of competitive advantage on a long-term basis.

Concurring with the last characteristic, Ulrich and Lake (1991) argued that a competitive advantage is gained by developing organisational capabilities from two of its essential elements, namely, perceived customer value and uniqueness. 'Perceived customer value' happens when employees understand and supply what their customers need. 'Uniqueness' occurs when the firm develops capabilities that cannot be imitated and are idiosyncratic. Therefore, firms that develop unique organisational capabilities that give added value to customers can achieve and sustain competitive advantages. These capabilities should be controlled by the organisation in order to improve efficiency and effectiveness (Barney, 1991).

Leonard-Barton (1995) also asserted that capabilities constitute a competitive advantage for a firm, because they have been built up over time and cannot be easily imitated. She argued that activities create a firm's capabilities, which it is defined as 'core capabilities'. Therefore,

capabilities are core only if they embody proprietary knowledge and are superior to those of competitors (Leonard-Barton, 1995). Concurring with Leonard-Barton, Nonaka *et al.* (2000b) affirmed that, by developing a capability that exploits existing knowledge, and that by creating new knowledge out of existing knowledge, a firm can obtain a sustainable competitive advantage.

Concerning knowledge creation, Kusunoki *et al.* (1998) suggested that organisational capability consists of various types of knowledge that are created and accumulated within the firm. Since the knowledge that shapes organisational capabilities cannot be understood as a single unity, the authors proposed the following multilayer structure:

i. Knowledge base: includes distinctive individual units of knowledge, such as functional knowledge embodied in a specific group of specialist;
ii. Knowledge frame: captures linkages of individual units of knowledge and their priorities. This layer is related to organisational structures and strategies, such as task partitioning between functional teams and the configuration of authority; and
iii. Knowledge dynamics: is the dynamic interaction of knowledge between knowledge base and knowledge frames, such as communication and co-ordination across different functional groups. The capabilities provided by knowledge dynamics emerged from within the process of knowledge interaction and, therefore, are called process capabilities.

Kogut and Zander (1992) described these capabilities as 'combinative capabilities', referring to the intersection of the capability of the firm to exploit its knowledge. Therefore, innovations are products of a firm's 'combinative capabilities' to generate new applications from existing knowledge. Teece and Pisano (1994) introduced the term 'dynamic capability', which refers to the firm's ability to use existing firm-specific capabilities and to develop new ones, to obtain sustainable advantage over time. Nonaka *et al.* (2000b) suggested that this 'dynamic capabilities' for new knowledge creation out of existing knowledge can only be accumulated through learning-by-doing. Therefore, KM as an organisational capability is a firm-specific capability, which is difficult to imitate and result in sustainable competitive advantage for the firm.

However, current organisational capabilities or 'core capabilities' can turn into 'core rigidities' (Leonard-Barton, 1992; Leonard-Barton, 1995). Since companies and people cannot be skilful at everything, a core capability both advantages and disadvantages a company. These rigidities can impel and constrain future learning and actions taken by a firm, thus hindering knowledge creation rather than promoting it (Nonaka *et al.*, 2000b).

The effect of organisational capabilities, as a result of knowledge activities, has been studied and explained by the Knowledge-based View (KBV) theory, which is discussed in the following section.

2.4.3 Knowledge-based view theory

From an academic perspective, **Knowledge-Based View (KBV)** theory of the firm has been a result of the combination of various streams of research (Grant, 1997; Eisenhardt and Santos, 2002). The most important are 'resource-based theory' and 'epistemology' (Polanyi, 1966; Wernerfelt, 1984; von Krogh *et al.*, 1994). Other theories have contributed, such as, 'evolutionary economics' (Nelson and Winter, 1982), 'organisational capabilities' (Chandler, 1992), 'organisational learning' (Argyris and Schön, 1978), 'dynamic capabilities' (Teece and Pisano, 1994; Spender, 1996), and 'innovation and new product development' (Teece and Pisano, 1994).

The KBV is based on the concept of knowledge as the primary source of competitive advantage of the firm (Kogut and Zander, 1992; Spender, 1996; Grant, 1997; Sveiby, 2001), and tacit knowledge as the key source of sustained competitive advantages (Grant, 1996b; Grant, 1996a). This theory involves the development of organisational capabilities that enhance the chances for growth and survival (Kogut and Zander, 1992) and establish their long-term strategies.

One of the main discrepancies among KBV contributors is the primary role of firms in relation to managing their knowledge. On one hand, Nonaka (2000b) proposed a variation in the theory naming it the 'knowledge-creating view of the firm', where the main role of the firm is creating knowledge continually. Others support this idea and agree the superiority of the firm in the creation of new knowledge (Kogut and Zander, 1992; Sveiby, 2001; Nickerson and Zenger, 2004). On the other hand, Grant (1996b; 1996a; 1997) argued that integrating specialised knowledge has to be the role and objective of a firm, because knowledge resides within the individuals and not within the organisation. Concurring with Grant, Eisenhardt and Santos (2002) and Håkanson (2010) identified knowledge integration to be a priority of the firm, rather than knowledge transfer. Positioning himself with a more neutral view, Spender (1996) considered the role of the firm to be knowledge production and application.

These discrepancies have led to criticism regarding the legitimacy and applicability of the theory (Foss, 1996; Phelan and Lewin, 2000; Kaplan *et al.,* 2001; Håkanson, 2010). One of these criticisms is related to the failures of operationalisation of the theory that hindered the empirical testing (Håkanson, 2010). Another aspect is related to an essentially static, taxonomic and abstract view on knowledge, assuming that its characteristic remains constant

over time (Foss, 1996). Nevertheless, recent publications have addressed these possible shortcomings of the KBV. Research has been undertaken permitting the empirical testing needed for study of the field to advance (Mejri and Umemoto, 2010; Martín-de Castro *et al.*, 2011; **Error! Hyperlink reference not valid.**; Zheng *et al.*, 2011; Aguilera-Caracuel *et al.*, 2012; Carlo *et al.*, 2012; Arend *et al.*, 2014; Blome *et al.*, 2014; Hörisch *et al.*, 2014), as well as, theoretical and empirical studies exploring the contextual conceptualisation of knowledge (Håkanson, 2010; Katzy *et al.*, 2012).

The KBV theory offers important views and theoretical bases for managing knowledge within an organisation. For instance, Grant (1996b) proposed that the fundamental task for an organisation is to coordinate the efforts of many specialists who, instead of creating knowledge, minimise knowledge transfer through cross-learning by organisational members. Therefore, the key of KM strategies is devising methods for integrating an individual's specialised knowledge through the following mechanisms (Grant, 1996b; Grant, 1996a):

- Rules and directives: Rules are the standards that regulate the interactions between individuals. Directives are a low-cost method of communicating between a specialist and a large number of persons who may be either are non-specialist or specialist in a particular field. Both provided the means by which tacit knowledge can be converted into readily comprehensible explicit knowledge;
- Sequencing: This defines organised production activities in a time-patterned sequence such that each specialist's input occurs independently through being assigned a time slot;
- Routines: These are capable of supporting a high level of simultaneous actions of individuals' performance of a particular task. Moreover, routines can permit highly varied sequences of interaction; and
- Group problem solving and decision making: Due to the high cost of consensus decision making, given the difficulties of communicating tacit knowledge, it is more efficient to maximise the use of rules, routines and other integrating mechanisms. These are economical in communication and knowledge transfer, and reserve problem solving and decision-making by teams to unusual, complex and important tasks.

All these mechanisms depend on the existence of 'common knowledge', which includes those components of knowledge common to all organisation members. Grant (1996b) proposed the following types of common knowledge within an organisation:

- Language;
- Other forms of symbolic communication (numeracy and statistics);

- Commonality of specialised knowledge;
- Shared meaning; and
- Recognition of individual knowledge domain.

Summarising the Grant findings, the primary role of a firm is integrating specialised knowledge resident in individuals into goods and services, and establishing the coordination necessary for this knowledge integration.

To give applicability and practicality to the KBV theory, Spender (1996) and Grant (1997) concurred in a group of heuristics that allow managers to define their organisations as a knowledge-based activity system. A comparative table of both heuristics is presented in **Table 2.7**.

Table 2.7 - Heuristics of KBV from Spender and Grant

Spender (1996)	Grant (1997)
Interpretive flexibility: active and evolving systems, for example, the division of labour	Architecture of organisational capabilities (team-based integration of individuals' specialised knowledge) Organisational design (team-based structures and modular design)
Boundary management: knowing when to say no to new opportunities	Distribution of decision-making authority: Decisions that require idiosyncratic and tacit knowledge, which is not readily transferable, must be made where this knowledge is located. Decisions which require explicit, easily-aggregated knowledge can be centralised.
Identification of institutional influences: identified the external entities and quasi-objects that could be affected by boundary movement	The role of strategic alliances: By resorting to collaborative arrangements with other firms, a firm is both able to utilise better its internal knowledge resources and access the knowledge resources of outside firms
The distinction between systemic and component features: identification of the internal knowledge processes meaning	The key to competitive advantage: achieving internal replication while avoiding external replication: help to unravel the process through which capabilities can be systematised and, hence, internally replicated.
	Vertical integration decision: markets are usually inefficient in transferring knowledge except where knowledge is embodied within products.

Spender (1996) and Grant (1996b) implied that the KBV theory differentiates from other organisation theories in the emphasis it gives to the firm as an institution for the production of goods and services. For example, sociological-based theories assumed organisations as a collection of social actions without distinguishing economic organisations from those with social or political objectives. However, both authors suggested that it is the transformation of

inputs into outputs where the characteristics of creating, acquiring, storing and deploying knowledge are the fundamental organisational activities.

For the analysis of SEs, it is important to recognise them as organisations developing business practices based on the production of goods and services for the creation of social and economic value. This organisational characteristic of SEs makes them appropriate for their study under a KBV theory, rather than sociological-based theories of the film.

2.4.4 Knowledge Management Capabilities models

Drawing upon the previous discussion, this research adopts a KBV theory and proposed the following working definition of Knowledge Management Capabilities in Social Enterprises.

A Knowledge Management Capability is the ability to mobilise and deploy knowledge resources in combination with other organisational capabilities for enabling KM activities, and thus distinguishing and providing a sustainable advantage, and enhancing organisational performance of Social Enterprises.

In order to develop these capabilities, KM contributors have proposed certain frameworks and models, which presented alternatives for operationalisation. The following sections discuss the most relevant models for KMC development described in the literature.

2.4.4.1 Leonard-Barton (1992) Core Capabilities Model

Leonard-Barton (1992) defined KMCs as 'core capabilities'. To create and maintain these capabilities, she suggested that an organisation needs to know how to manage the activities that create knowledge and understand exactly what constitutes a 'core capability' (**Figure 2.3**).

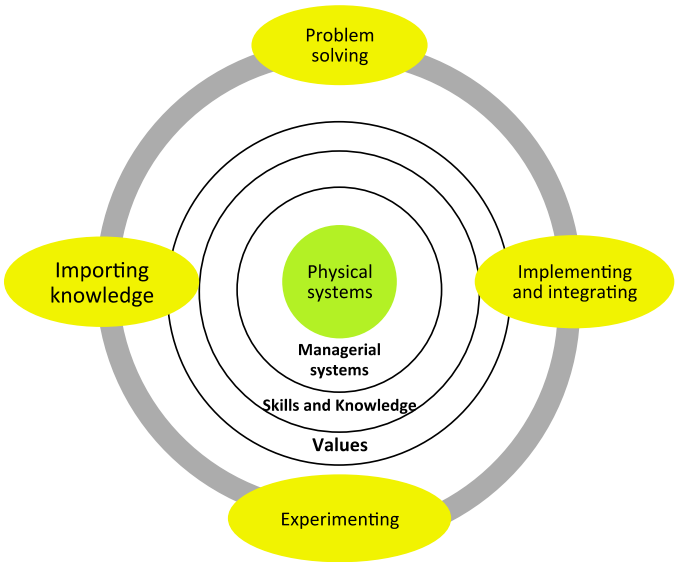


Figure 2.3 - Leonard-Barton (1995) model of 'core capabilities'

The activities create a firm's capabilities (Leonard-Barton, 1995). There are four critical knowledge-building activities that interact with those capabilities. These are:

i. Sharing knowledge – creative problem solving;
ii. Implementing and integrating new methodologies and tools;
iii. Formal and informal experimentation; and
iv. Importing knowledge – pulling in expertise from outside.

These activities can feed into, and also derive from, the company's core capabilities that are its knowledge assets. The four dimensions that comprise 'core capabilities' are:

i. Employee knowledge and skills: where the content of knowledge is embodied;
ii. Technical systems: where knowledge is embedded;
iii. Managerial systems: guide the processes of knowledge creation and control; and
iv. Values and norm: associated with the various types of embodied and embedded knowledge and with the processes of knowledge creation and control.

Even though competitors can absorb aspects of the four dimensions of 'core capabilities', it is those portions of the system and, specially, the unique combinations of them that are neither readily transferred nor imitated. These provide the company with strategic advantage (Leonard-Barton, 1995). Therefore, the 'core capability' is '*the system of activities, physical systems, skills and knowledge bases, managerial systems of education and reward, and values that create a special advantage for a company'* (Leonard-Barton, 1995, p18).

The Leonard-Barton (1995) model represented an important contribution for management theories and KBV theory because it identified a group of knowledge-related activities and dimensions that comprise 'core capabilities'. However, the model does not define clear instructions for operationalising it, does not give further empirical assessment of its influence and impact, and it is context dependent. Another possible limitation of this model is related to the processes level. The four knowledge activities did not include important processes, such as, protection and conversion.

2.4.4.2 Gold et al. (2001) Model of Knowledge Capabilities

Gold *et al.* (2001) proposed and tested a conceptual model with KMCs related to organisation performance, based on the organisational capabilities theory (see **Figure 2.4**). To determine these knowledge capabilities, the authors concurred with Leonard-Barton and subdivided them into infrastructure capabilities – the capability dimension, and process capabilities - knowledge-based activities. The former are related to social capital, since they are required for the combination and exchange of knowledge for creation of new knowledge. These are:

- Structural, managerial system refers to norms and mechanism;
- Shared context comprised the cultural dimension – values; and
- Technology, physical system, managed technology-enabled ties with and within the organisation.

The latter are required to leverage the infrastructure capabilities. These are acquisition, conversion, application and protection. Although this integral model was very important because it demonstrated empirically the positive relationship between KMCs and organisational performance, the model did not explore the relationship between infrastructure and process capabilities simultaneously, and did not included human dimensions, such as employees' skills and motivations.

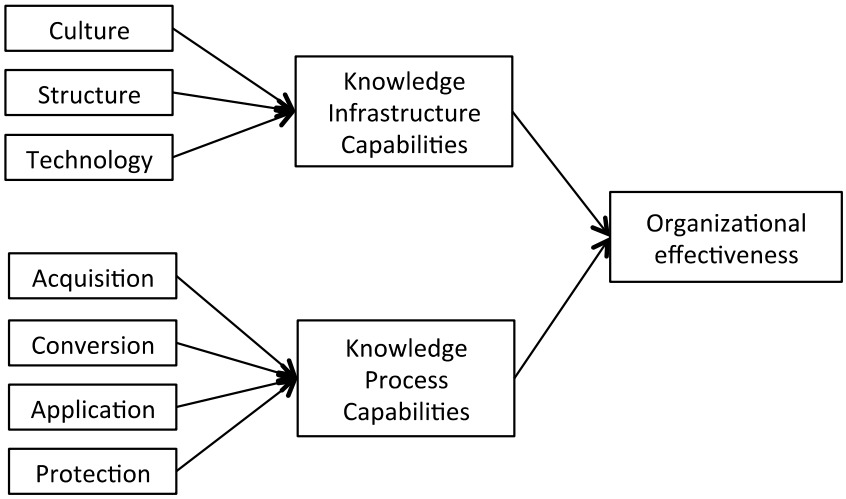


Figure 2.4 - Gold *et al.* (2001) model of 'knowledge capabilities'

2.4.4.3 Lee and Choi (2003)

Another empirical model that included knowledge activities and capability dimensions was proposed by Lee and Choi (2003), based on systems thinking theory (see **Figure 2.5**). The authors defined three major components of the model following the input-process-output system. These are (1) KM enablers that affect (2) organisational performance through (3) knowledge processes. Additionally, the model included an intermediate variable, named organisational creativity, to understand the effect of the knowledge processes on organisational performance. Concurring with Gold *et al.* (2001) and Leonard-Barton (1995), the model proposed a group of enablers of knowledge processes, which are culture, structure, technology and people. The processes assessed in the model were related only to knowledge creation and are socialisation, externalisation, combination and internalisation.

The main difference of this model with the previous ones is the order of the relationship among variables. The model did not study the influence of both enablers and processes,

simultaneously, in organisational effectiveness. This model was further modified and empirically tested by researchers, who included the original main author (Lee and Lee, 2007). In this new model, the authors maintain the order of the relationship among variables, but expanded the KM processes to include generating, accessing, facilitating, representing, embedding, usage, transferring and measuring. Likewise, the dependent variable was KM performance measured in terms of customer performance and financial performance. In both studies, the sample was restricted to only large and profitable listed companies.

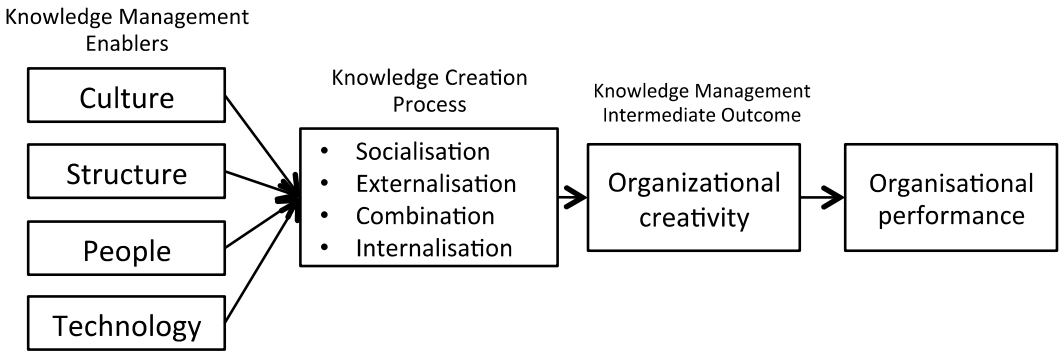


Figure 2.5 - Lee and Choi (2003) model of 'knowledge management enablers'

2.4.4.4 Other KMC models

Apart from the theoretical and empirical models explained below, other contributors have undertaken other empirical studies that also determine the contribution of KMCs in enhancing organisational outcomes. Appendix B (Page 289) presents a table with a general description of these empirical studies, including the last two described above.

A first group of studies included the previous two explained models, and the empirical studies developed by Lee and Lee (2007), Zaim *et at.* (2007) and Mills and Smith (2011). These models evaluated both infrastructure and process capabilities.

The second group included the models that assess the relationship between KM processes and organisational performance. The first study was developed by Becerra-Fernandez *et al.* (2001) and integrated the four processes for knowledge creation proposed by Nonaka, and evaluated its relationship with perceived knowledge satisfaction. A valuable contribution from this study is that the model identified not only a positive relationship between KM processes and perceived knowledge satisfaction, but also demonstrated that the effectiveness of a KM process depends on the circumstances under which it is used. Nevertheless, the use of KM satisfaction as dependent variable was not enough probe of organisational performance or effectiveness. Moreover, the model did not measure the impact of organisational enablers, such as culture and structure.

Similar models were identified in the literature that only related KM processes with organisational indicators, in this case, competitiveness and perceived historical performance (Liu *et al.*, 2004; Liang *et al.*, 2007). The studies defined KMCs in terms of four main functions, or components of the KM value chain proposed by Shin *et al.* (2001), namely obtaining/creation, refining/storing, sharing/distribution and application of knowledge. Concurring with the Becerra-Fernandez *et al.* (2001) findings, both studies identified a positive relationship between KM processes, competitiveness, and perceived organisational and financial performance. Moderator factors were included in the model, such as enterprise characteristics and industry that demonstrated that KM influence on organisational outcomes differs for various industries and enterprise scales.

A third group of eight studies were focused on organisational characteristics or enablers that influence KMCs and, consequently, organisational performance (Chuang, 2004; Syed-Ikhsan and Rowland, 2004; Yang and Chen, 2007; Nguyen *et al.*, 2009; Gholipour *et al.*, 2010; Zheng *et al.*, 2010; Bakar *et al.*, 2012; Susanty *et al.*, 2012). For instance, Chuang (2004) asserted that organisations leverage their KM resources to create unique KMCs that determine their overall effectiveness. These capabilities were similar across all the studies, and were defined as technological factors and social factors, such as culture, structure, people and strategy. The influence of these resources or capabilities in knowledge processes, such as sharing and transfer, and organisational performance, such as competitive advantage and effectiveness, were tested with empirical bases. Diverse finding were observed. For example, two studies identified no relationship between KMCs and technology capabilities (Chuang, 2004; Syed-Ikhsan and Rowland, 2004) and one study identified no relationship between KMCs and organisational structure (Nguyen *et al.*, 2009). However, it was almost unanimous that culture was one of the most influential organisational elements in the relationship between KMCs and organisational performance.

Drawing upon these models it can be interpreted that KMCs are generally compounded by both organisational capability and processes capability. Nevertheless, the relationship between these two capabilities has led to contrasting empirical findings in the KM literature. One group of studies recognised both organisational conditions and knowledge activities as antecedents of organisational performance (Gold *et al.*, 2001; Zack *et al.*, 2009; Mills and Smith, 2011). The second group suggested that organisational conditions are prerequisite for knowledge processes (Appleyard, 1996; Lee and Choi, 2003; Lee and Lee, 2007).

Regarding the components of each capability, for organisational capability, models generally agreed on four or five variables such as, culture, structure, technology and people. This was not the case for processes capability, which varied significantly among models. For example,

the Becerra-Fernandez and Sabherwal (2001) and Lee and Choi (2003) models were focused on knowledge creation, employing the general classification of knowledge creation processes proposed by Nonaka – internalisation, externalisation, combination and socialisation. Gold *et al.* (2001) focused processes capability on knowledge integration and divided it among on acquisition, conversion, application and protection. Liu *et al.* (2004) and Liang *et al.* (2007) worked from a KM system perspective and defined the activities as obtaining/acquiring, refining/creating, storing/documenting and sharing. This disparity might suggest that processes capability depend on the initial definition of KMCs assumed by each model. In other words, the position assumed by the researcher regarding the main role of a firm– creation of knowledge or the integration of knowledge.

The models and empirical studies reviewed in this section provide useful frameworks for defining clearly the organisational elements and knowledge activities that integrate KMCs, and their relationship with organisational outcomes, such as competitive advantage and organisational performance. However, all seventeen empirical studies illustrated in Appendix B (Page 353) were focused on relatively large and profitable firms, with clear organisational components that articulate the development of organisational capabilities. This suggested a limited research of KMCs in small and medium size organisations, as well as different sectors, such as Social Economy organisation, with complex strategic and organisational structures, and scarcity of human and financial resources.

These findings, in combination with the findings from the first two reviews, reflect and confirm the necessity for more empirical research on the relationship between KMCs and organisational performance, and its application into different organisational settings.

2.5 Conclusions of Chapter 2

Having reviewed the literature on the emerging fields of SE and SEship, the limited literature on KM in Social Economy and small-size organisations, and the almost void in SE and SEship literature, a literature gap is identified. To justify the intention to fill this gap, this literature review has presented the importance of SE model in alleviating social and environmental problems that developed and developing countries are facing nowadays. The bibliometric analysis demonstrated the need for more empirical research in the field that can test business-stream theories that have been successful in other sectors. Moreover, it highlighted the need for concise strategies for improving SEs performance and maximising their impact

A KM literature review establishes how an organisation could create value, in terms of sustainable competitive advantage and organisational performance, by developing and managing its KMCs efficiently. However, there is a need for more empirical studies that

confirm and validate this proposition, and for practical frameworks that describe this development. Similarly, the empirical evidence of this value has been evaluated mainly on large, profitable organisations, which have the resources to involve KM practices in their operations. Organisations of different sizes and different strategic orientations have not been studied extensively through the lens of KM, such as, small firms and Social Economy organisations.

Therefore, it is proposed that, to move forward in KM and SE research, there is a strong need to develop a foundation and conceptual model for KMCs development in the SE sector which takes into account SEs' unique strategic and operational characteristics. This model is developed in the following chapter.

Chapter 3

Development of the Conceptual Model Knowledge Management Capabilities in Social Enterprises (KMC-SE)

The previous chapter identified a gap in the Knowledge Management (KM) and Social Enterprise (SE) literature related to the need for more conceptual and empirical research in the development of Knowledge Management Capabilities (KMCs) in SEs. Thus, this chapter presents a justification for the Conceptual Model, 'Knowledge Management Capabilities in Social Enterprises (KMC-SE)', proposed in this research. The KMC-SE Conceptual Model is developed to provide conceptual basis for examining the relationship between KMCs and Organisational Performance in SEs. The 'General method of theory-building research in applied disciplines' proposed by Lynham (2002) is followed for the development of the conceptual model and its first two stages are established in this chapter.

Starting with an explanation of the 'General method' in Section 3.1, the chapter continues with the development of the first stage. This includes a detailed review of the key elements of the conceptual model in the KM and SE literature in Section 3.2, as well as the existent evidence of the relationships among the elements. Section 3.6 presents the second stage, which describes the operationalisation of the model. This is followed by an explanation of the twenty-one hypotheses proposed in the KMC-SE Conceptual Model.

3.1 The development of a conceptual model for examining Knowledge Management Capabilities in Social Enterprises

Evidence presented in Chapter 2 highlighted two important research matters:

i. There is still limited understanding and empirical evidence of the organisational conditions and processes that develop KMCs, as well as their influence in organisational performance of micro, small, medium and Social Economy organisations; and
ii. There is a paucity of research about how SEs operate and perform. SEs are micro, small or medium size organisations with two or three strategic drivers, which defines particular organisational characteristics. These qualities make them a different type of organisation from the already studied private, public and non-profit companies.

To help to fill the academic gap described in these matters, this research proposes the development of conceptual knowledge, in the form of a model, that explores and explains the development of KMCs and their association with organisational performance in SEs.

As was explained in Chapter 2 (Section 2.2.3.3 Page 26), few explicit references to KM in SEs were found in the literature. Moreover, SE is a relatively new academic field, with more theoretical than empirical research developed (Granados *et al.*, 2011). This makes the development of the KMC-SE Conceptual Model largely derived from theoretical statements made in the KM literature and from assessment within practitioners' literature on KM and SE. Therefore, to guide this development, a methodology for theory building is followed.

Theory building is considered a process by which descriptions, explanations or representations of an observed phenomena are generated and verified (Lynham, 2002). Various authors have described this process from different epistemological and ontological positions (Torraco, 1997; Torraco, 2002; Storberg-Walker, 2003). As will be explained in Chapter 4 (Section 4.1 Page 98), this research follows a critical realism paradigm, which assumes both inductive and deductive positions.

Taking this into consideration, the 'General method of theory-building research in applied disciplines' proposed by Lynham (2002) is followed for the development of the conceptual model. This method has been followed extensively by Human Resources Development (HRD) research (Lynham, 2000; Egan, 2002; Turnbull, 2002; Storberg-Walker, 2003), but it has been recommended and followed by other applied disciplines, such as KM (Zheng, 2005). This method has been considered appropriate to generate theory from different paradigms, both inductive and deductive logics, and to include the practitioners' perspective in the process (Torraco, 1997; Torraco, 2002; Storberg-Walker, 2003). Although this method has been

considered too generic in comparison with more detailed methods, such as, the Dubin (1978) or the Reynolds (1971) method, it has been argued that this characteristic allows the method to combine the intuition, creativity and curiosity of the researcher in the various phases (Storberg-Walker, 2003). Another advantage of this method, in comparison with previous ones, is that it provides a cyclical and holistic understanding of the applied theory building method, supporting the continual process (Storberg-Walker, 2006; Swanson and Chermack, 2013). The 'General Method' of Lynham (2002) is illustrated in **Figure 3.1**.

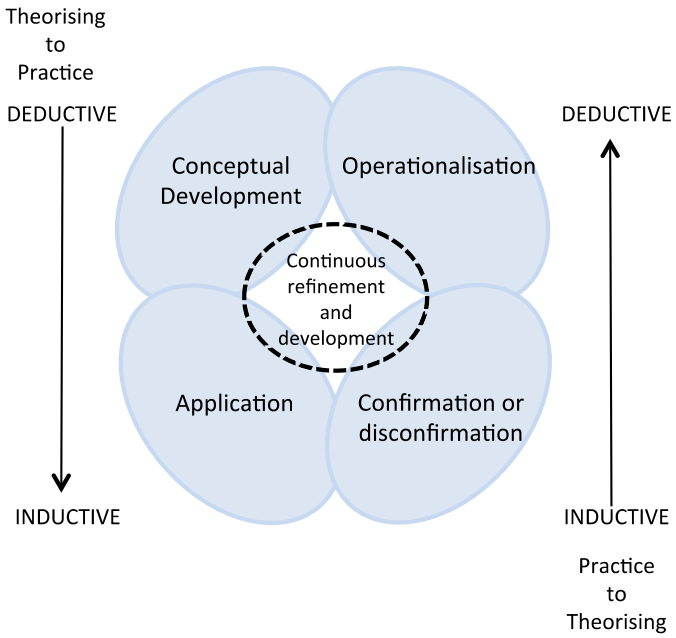


Figure 3.1 - General method of theory-building proposed by Lynham (2002)

As illustrated in **Figure 3.1**, the method consisted of five interdependent, interactive phases, which are:

i. Conceptual development: identify key elements of the theory, describe their relationships and delineate limitations and conditions under which the conceptual framework can be expected to operate. The output of this phase is an explicit, conceptual model that is developed from the theorist's knowledge of, and experience with, the issue concerned;
ii. Operationalisation: translate or convert the concepts in the theory into observable elements that can be confirmed in practice. These elements can be in the form of hypotheses;
iii. Confirmation or disconfirmation: plan, design, implement, and evaluate an appropriate research agenda to confirm or disconfirm the conceptual framework central to the theory;
iv. Application: the actual application of the theory to the issue in practice. This phase

enables the use of experience and learning from the real-world application of the theory to inform, develop, and refine the theory further; and

v. Continuous refinement and development: the conceptual model requires on-going study, adaptation, development, and improvement to ensure that the theory is continuously updated and improved over time.

As was defined in Chapter 1 (Section 1.2 Page 5), the purpose of this study is to get an initial understanding of the elements that develop KMCs and their relationship with the organisational performance of SEs. Consequently, the first three phases of the 'General Model' are the main focus of this research. Phases 1 and 2 will be developed in this chapter, resulting in an operationalised version of the model that will facilitate its empirical validation with the quantitative analysis. Phase 3 will be described in Chapters 4, 5 and 6. Phases 4 and 5 ' will be suggested for further research in Chapter 7.

3.2 Conceptual development

The conceptual development phase requires the embracing of previous research to determine an explicit, conceptual framework or model that explains the issues of this study (Dubin, 1978). This phase starts with the identification of key elements of the theory. These are based on propositions presented by contributors of Knowledge-Based View (KBV) theory reviewed in Chapter 2 (Section 2.4.3 Page 37), and the theoretical and empirical models described in Chapter 2 (Section 2.4.4.4 Page 43).

Various KM practitioners and academics have concurred that KM is not only a group of techniques, mechanisms or processes to manage knowledge in an organisation (Leonard-Barton, 1995; Grant, 1997; Davenport and Prusak, 1998; Nonaka *et al.*, 2000b; Gold *et al.*, 2001; Lee and Choi, 2003). This is because, as Nonaka *et al.* (2000a) suggested, knowledge creation cannot be free from context, because social, cultural and historical context are important for individuals, as such context provide the basis for people to interpret information to create meanings. Therefore, as a starting point for managing knowledge in an organisation, companies need to know and understand (Leonard-Barton, 1995; Gold *et al.*, 2001; Ndlela and du Toit, 2001; Lee and Lee, 2007):

- which are the activities that create and integrate knowledge - the process capability;
- exactly what organisationally constitutes a KMC and what are the organisational conditions where information is interpreted to become knowledge – the organisational capability; and
- what is the potential added value of this capability – organisational performance.

For these reasons, the key elements of the conceptual model are organisational and process capabilities as the units that develop KMCs, and organisational performance in SEs. These are defined in the following sections.

3.2.1 Organisational Capability (OC)

The organisational capability represents the dimension of KMCs, starting with the reservoir of knowledge embedded in people and technology systems, and followed by the management structures and the culture that support the growth of knowledge (Leonard-Barton, 1995). These four elements, people, technology, structure and culture, can be considered as organisational mechanisms for fostering knowledge consistently and increasing the efficiency of knowledge processes (Gold *et al.*, 2001). Therefore, the OC is the organisation's ability to manage its technological, structural, human and cultural infrastructure in the improvement and development of its KMCs. Based on KM and SE literature, each of these organisational elements is described and discussed in the following sections.

3.2.1.1 Technology

Technology infrastructure comprises the hardware, software, middle-ware and protocols that allow for the encoding and electronic exchange of knowledge (Meso and Smith, 2000). Thus, KM technological systems effectively leverage the collective experience and knowledge of employees to support information processing needs, as well as enabling and facilitating sense-making activities of knowledge workers (Wickramasinghe, 2003).

Technology, more specifically Information Technology (IT) has participated considerably in the development of KM as a strategic business technique (Thierauf, 1999). In some cases this connection was not clear since, for some practitioners, IT and KM were interchangeable. This, however, was argued by some KM academics and practitioners (Powell and Dent-Micallef, 1997; Koulopoulos and Frappaolo, 1999; DeTienne and Jackson, 2001; Lubit, 2001; Hlupic *et al.*, 2002; Wickramasinghe, 2003; Yang and Chen, 2007), who emphasised that the pivotal components of successful KM strategies were people and a supportive social and cultural environment, rather than technology and information systems. Therefore, the role of technology has been re-dimensioned as a facilitator of KM rather than its main outcome (Leonard-Barton, 1995; Lim and Klobas, 2000; Wong and Aspinwall, 2005).

Still, it is through information and communication technology that knowledge travels. Thus, the strategic objective of technology is facilitating knowledge creation, embodiment, dissemination, integration, use and management inside and outside the organisation (Leonard-Barton, 1995; Gold *et al.*, 2001). Contributors have examined and analysed certain elements

of technology that influence and support the management of knowledge in an organisation. These elements are summarised in **Table 3.1**.

Table 3.1 - Benefits of Technology in KM

KM component	Benefit	Authors
Knowledge sharing - transfer	Increase the speed of sharing	(Teece, 1998; Ruggles, 1999; Albino *et al.*, 2004; Coakes, 2006; Yang and Chen, 2007; Coakes *et al.*, 2010)
	Increase the quality and efficiency of transfer	(Ruggles, 1999; Albino *et al.*, 2004)
	Help locate the various elements relevant to knowledge sharing	(Hendriks, 1999)
	Enlarge the space of possible strategies to support knowledge transfer	(Albino *et al.*, 2004)
Knowledge integration	Enable firms to integrate fragmented flows of knowledge, aggregated from multiple sources inside and outside the organisation and closing social ties	(Leonard-Barton, 1995; Nickerson and Zenger, 2004)
	Enable coordination between communities of practice by minimising a number of human and physical constraints	(Bhatt, 2001)
Knowledge conversion	Converse knowledge and create new knowledge	(Scott, 1998)
Knowledge preservation / retention	Preserve the knowledge of individuals who have moved on to other functions, other jobs and organisations, or due to poor staff retention	(Leonard-Barton, 1995; Wickramasinghe, 2003)
	Knowledge learned in the organisation can be catalogued and transfer to other application within and across organisations and geographies	(Teece, 1998)
Knowledge access	Improve access to make critical knowledge available wherever and whenever it is needed	(Scott, 1998)
	Lower temporal and spatial barriers between knowledge workers, and improve access to information about knowledge	(Hendriks, 1999)
Cost	Decrease due to time and distance	(Albino *et al.*, 2004; Yang and Chen, 2007)
Organisational complexity	Reduce complexities in the environment caused by globalisation and mergers	(Wickramasinghe, 2003)

Despite the significant number of possible advantages of technology in KM strategies described in **Table 3.1**, empirical studies listed in **Table 3.2** showed contradictory empirical evidence. Seven studies found that technology, in terms of IT, does not have a direct effect on organisational outcomes, such as KM and organisational performance.

Table 3.2 - Empirical studies of the relationship between Technology and KM

Type of relationship	Mediator variable (if applicable)	Outcome (dependent variable)	Authors
Positive		Knowledge sharing	(Al-Alawi *et al.*, 2007)
		Knowledge processes	(Allameh *et al.*, 2011)
	KM infrastructure	Operational capabilities	(Cepeda and Vera, 2007)
		Organisational effectiveness	(Gold *et al.*, 2001)
		Enabler for implementation of KMS	(Gururajan and Tsai, 2013)
		KM success	(Khalifa and Liu, 2003)
	Knowledge integration capability	Performance	(Kim *et al.*, 2012)
	Knowledge processes	KM performance	(Lee and Lee, 2007)
		Organisational competitive advantage	(Nguyen *et al.*, 2009)
	Knowledge creation	Organisational performance	(Soon and Zainol, 2011b)
	Knowledge sharing	Organisational performance	(Waheed *et al.*, 2013)
		KM performance	(Zaim *et al.*, 2007)
	KM infrastructure capabilities	Project benefits	(Bakar *et al.*, 2012)
No relationship	KMC	Competitive advantage	(Chuang, 2004)
		KM enablers	(Gholipour *et al.*, 2010)
	Knowledge creation	Organisational performance	(Lee and Choi, 2003)
		Organisational performance	(Mills and Smith, 2011)
		Knowledge processes	(Romero-Artigas *et al.*, 2013)
	Knowledge transfer	Organisational performance	(Susanty *et al.*, 2012)
		Knowledge sharing culture	(Connelly and Kelloway, 2003)

A possible reason for this non-significant relationship is that, systems can only handle information, thus, only human cognition can transform this information in knowledge (Powell and Dent-Micallef, 1997). Therefore, for a technology system to become a core capabilities it requires to incorporate the proprietary know-how about a specific task in the organisation's particular work environment (Leonard-Barton, 1995) and match the cognitive characteristics of people in the organisation (Albino *et al.*, 2004). Technology infrastructure is largely software-dependent, which is easily replicated and imitated, even when protected by regulatory assets, such as, copyrights, patents and licenses. The hardware infrastructure found in KM systems is largely standard and thus easily imitated (Leonard-Barton, 1995). Therefore, the technological component of KM is not a core capability on its own. It contains fundamental skills but these alone are not adequate for a knowledge organisation, it is necessary to involve other elements, such as, culture and people (Powell and Dent-Micallef, 1997; Wickramasinghe, 2003; Yang and Chen, 2007).

Although the technology capability may not contribute directly to organisational performance, it is a crucial element that enables knowledge acquisition and knowledge application processes.

Technology in Social Enterprises

Information Technology (IT) in SE has received little attention in SE and SEship literature and little is known about how it is evolving in SEs (Paton, 2003; Bagnoli and Megali, 2009; Doherty *et al.*, 2009). Although this does not infer the absence of technology in SE, the limited research in the subject suggest little interest, both from academics and practitioners, to study in more detail the influence of technology on SE or, as has been identified with other management theories, Social Entrepreneurs (SEneur) do not consider this issue part of their priorities to develop.

Few studies exploring IT in SEs recognise that SEs are taking part in the IT phenomenon (Paton, 2003; Bull, 2007; Mohan and Potnis, 2010; Aruch *et al.*, 2013; Tobi *et al.*, 2013). Thanks to the significant reduction in prices and improvement in quality, SEs are incorporating technology systems to handle, for example, supporters' and donors' records, staffing records and project records (Paton, 2003). Nevertheless, SEs present some difficulties when managing their technologies. Paton (2003) adopted the Davenport *et al.* (1992) scheme to 'speculate' about current technological practices of SE:

i. 'Feudalism': their systems are not communicating with each other. For example, the accounting system does not provide the information that fundraising managers' need to analyse and understand the returns on their campaigns;
ii. 'Colonisation': their reporting systems have been dominated by the need to meet the requirements of one or more major donors;
iii. 'Enlightened monarchies': a strong centre drives the introduction, or a more integrated approach, to information systems and performance, but sensitive enough to the needs of different activities to command general support; and
iv. 'Negotiated feudalism': where the centre leads a debate among the departmental barons over a common framework for performance measurement.

Other limitations identified in the literature are associated with (Bull, 2007; Mohan and Potnis, 2010):

- Time constraints of busy managers;
- The instant access to information that organisations need in order to input data into IT systems, which can be difficult and time consuming;
- Inexperienced field staff
- Training required for members of the SE to manipulate the system had to be minimal to reduce cost.

Therefore, as managers suggested in a study of 30 SEs developed by Bull (2007), they normally have informal systems for internal communications.

Although the research available on IT in SEs is scarce, there are studies in other sectors that can be analysed to infer the current participation of IT in SEs. Some studies on Non-governmental Organisations (NGOs) (Bach and Stark, 2002), which belong to the Social Economy sector, identified that IT can help NGOs in expanding the web of social interaction, increasing its density, and promoting new connections among diverse and dispersed social actors. However, the problems that NGOs encounter in using IT are thought-provoking. These include a lack of funding to purchase equipment or services, lack of skilled staff, and too little time and interest (Bach and Stark, 2002). Similarly, Relly (2009) found that non-profit organisations (NPOs) are reluctant to rely too heavily on technology for communications and knowledge sharing. This is because NPOs feel that technology disassociates them with the people with whom they are trying to engage (Reilly, 2009)(Reilly, 2009)(Reilly, 2009)(Reilly, 2009)(Reilly, 2009)(Reilly, 2009)(Reilly, 2009)(Reilly, 2009)(Reilly, 2009)(Reilly, 2009)(Reilly, 2009). Moreover, the author argued that NPOs' members have an inadequate understanding of the types of information and technology that IT is capable of generating.

Even though there is limited research on the state of IT in SEs, it can be inferred that SEs use technology in a general way to manage their information. However, these systems are not integrated or sufficiently developed to support decision-making, and operation and production management. Possible reasons for this can be associated with financial restrictions and a limited number of skilled staff.

3.2.1.2 People

People, in the context of KMCs, are understood as 'the heart of creating organisational knowledge' (Lee and Choi, 2003, p188) and the key component of KM (Leonard-Barton, 1995; Chase, 1997; Davenport and Prusak, 1998; Ndlela and du Toit, 2001; Hlupic *et al.*, 2002; Mohamed *et al.*, 2007). Therefore, managing people who are willing to create and share knowledge is crucial for organisations (Lee and Choi, 2003; Lee and Lee, 2007). Such willingness is associated normally with specific skills (Leonard-Barton, 1995; Hansen and von Oetinger, 2001; Lee and Choi, 2003; Chuang, 2004; Nguyen *et al.*, 2009) and motivational factors (Hendriks, 1999; Osterloh and Frey, 2000; Bartol and Srivastava, 2002; Bock *et al.*, 2005; Burgess, 2005; Ko *et al.*, 2005; Cho *et al.*, 2007; Lin, 2007; Galia, 2008) from people who work in the organisation or will join it.

Leonard-Barton (1995) introduced the 'signature skill' as the employees' skill that organisations need to manage in order to facilitate creation and integration of knowledge. This

skill is part of the identity and idiosyncratic nature of a person and obtained from education or by experience. Leonard-Barton (1995) proposed a mechanism for managing multiple 'signature skills' in order to integrate knowledge, which is having people with **T-shaped skills** in the enterprise. This skill refers to members that are not only experts in specific technical areas, but also intimately acquainted with the potential systemic impact of their particular tasks (Iansiti, 1993, p139). Some of the advantages of having people with these skills for KM are (Leonard-Barton, 1995; Madhavan and Grover, 1998; Hansen and von Oetinger, 2001; Lee and Choi, 2003):

- Managers would break down the traditional corporate hierarchy to share knowledge freely across the organisation, while remaining fiercely committed to individual business unit performance;
- Managers and members can use two or more 'professional languages', and see the word from different perspectives, improving the integration of very diverse knowledge; and
- Members are able to shape their knowledge to respond to a problem at hand, based on their experience applying functional knowledge.

Empirical studies have been conducted to examine the relationship between T-shaped skills and KM or organisational outcomes. As can be observed in **Table 3.3**, there is not overall agreement about the real influence of these skills in improving organisational outcomes, with an equal number of studies finding positive and non-relationships.

Table 3.3 - Empirical studies of the relationship between People (T-shaped skills, extrinsic and intrinsic motivation) and KM

Type of relationship	Outcome (dependent variable)	Authors
T-shaped skills		
Positive relationships	Competitive advantage	(Chuang, 2004)
	Knowledge creation	(Soon and Zainol, 2011a)
	KMS implementation	(Gururajan and Tsai, 2013)
	KM enablers	(Gholipour *et al.*, 2010)
No relationship	Competitive advantage	(Nguyen *et al.*, 2009)
	Organisational performance	(Susanty *et al.*, 2012)
	Knowledge creation	(Lee and Choi, 2003)
	KM performance	(Lee and Lee, 2007)
Extrinsic Motivation		
Positive relationship	Knowledge transfer	(Burgess, 2005)
	Knowledge sharing	(Galia, 2008)
No relationship	Knowledge sharing	(Cho *et al.*, 2007; Lin, 2007)
	Knowledge transfer	(Ko *et al.*, 2005)
	Knowledge contribution	(McLure Wasko and Faraj, 2005)
Negative relationship	Knowledge sharing	(Bock and Kim, 2002; Bock *et al.*, 2005)
Intrinsic Motivation		
Positive relationship	Knowledge sharing	(Cho *et al.*, 2007; Lin, 2007; Galia, 2008; Waheed *et al.*, 2013)
	Knowledge transfer	(Ko *et al.*, 2005)
	Knowledge contribution	(McLure Wasko and Faraj, 2005)
	New knowledge creation and innovation	(Hotho and Champion, 2011)

In relation to motivational factors, KM literature suggests two broad classes of motivations, extrinsic and intrinsic, that can encourage and facilitate knowledge transfer (Ghoshal and Bartlett, 1995; Ko *et al.*, 2005) and knowledge sharing (Hendriks, 1999; Osterloh and Frey, 2000; Bartol and Srivastava, 2002; Bock *et al.*, 2005; Burgess, 2005; Cho *et al.*, 2007; Lin, 2007). Employees are extrinsically motivated if they are able to satisfy their needs that do not lie in the content of the activity itself, focusing on the goal-driven reasons, for example, rewards or benefits earned when performing an activity (Osterloh and Frey, 2000). Employees are intrinsically motivated if an activity is undertaken for one's immediate need satisfaction, indicating the pleasure and inherent satisfaction derived from a specific activity (Osterloh and Frey, 2000; Lin, 2007).

Extrinsic motivation (EM) to share knowledge is normally related to employees' perception of the value of knowledge exchange and associated with the transfer and share of tacit knowledge (Osterloh and Frey, 2000). To measure and assess the employees' extrinsic motivation to share knowledge, contributors have defined the following two salient determinants (Hendriks, 1999; Bock *et al.*, 2005; Burgess, 2005; Cho *et al.*, 2007; Lin, 2007):

i. Expected organisational rewards: organisational rewards are compensation for the contribution to the organisation, and are useful for motivating employees to perform desired behaviours (Bartol and Srivastava, 2002). Organisational rewards can range from monetary incentives, such as increased pay and bonuses, to non-monetary, such as job security, promotion and educational development (Bock and Kim, 2002; Cho *et al.*, 2007; Lin, 2007). Gold *et al.* (2001) suggested that a formal reward and incentive system could determine the way in which knowledge is accessed and how it flows within and outside the organisation.

ii. Reciprocity benefits: reciprocity refers to the expectation that a knowledge recipient will pay benefits back to the knowledge giver, or that it will lead to future request for knowledge (Burgess, 2005; Cho *et al.*, 2007). Moreover, reciprocity behaviour can provide a sense of mutual gratitude, leading knowledge contributors to expect help from others. This ensures an on-going supportive knowledge sharing and the maintenance of on-going relationships with others, specifically with regard to knowledge reception (Bock *et al.*, 2005).

As may be observed in **Table 3.3**, diverse results are found in empirical studies regarding the relationship between extrinsic motivation and KM processes. A possible explanation for the negative or non-relationship is the fact that: (a) rewards break relationships due to competitive behaviours inhibiting cooperation; and (b) managers may substitute constructive feedback and social support by using reward systems (Ghoshal and Bartlett, 1995; Davenport and Prusak, 1998; Sveiby, 2001; Goh, 2002). Additionally, Chase (1997) discovered that reward systems were evaluated by managers as 'soft' issues that were seen as obstacles to successful introduction of KM.

Intrinsic motivation (IM) to share knowledge, on the other hand, is associated with the transfer and sharing of tacit knowledge, since particular employees' tacit contributions to the organisation cannot easily be measured and rewarded accordingly (Osterloh and Frey, 2000). To measure and assess the employees' intrinsic motivation to share knowledge, researchers have defined the following three indicators (Bock *et al.*, 2005; Cho *et al.*, 2007; Lin, 2007):

i. Knowledge self-efficacy: Self-efficacy refers to judgments of individuals regarding their capabilities to organise and perform courses of action required to attain designated levels of performance (Bandura, 1986). When members saw themselves as providing value to their organisations through their knowledge and expertise sharing, employees developed a positive attitude and a self-motivated force to share knowledge and improve work efficiency (Bock and Kim, 2002; Lin, 2007).

ii. Reputation: Reputation refers to the overall quality as seen or judged by other people, or the recognition of some specific contribution to the organisation by other people (Cho *et al.*, 2007). Employees can benefit from showing others that they possess valuable expertise, which earns them respect and status, resulting in active participation and knowledge sharing (McLure Wasko and Faraj, 2005). Therefore, if individuals believe they could make contributions to the organisation's performance, and perceive that participation will enhance their reputations in the company, they would be more likely to have a greater intention to share knowledge (Cho *et al.*, 2007).

iii. Enjoyment in helping others: helping others is associated normally with altruism, which is including discretionary behaviours that help others with organisationally relevant tasks or problems (Lin, 2007). Thus, individuals may contribute knowledge if they perceive that engaging in intellectual activities to help others solving problems is interesting, fun and challenging, and because they enjoy helping others (McLure Wasko and Faraj, 2005).

Empirical studies listed in **Table 3.3** demonstrated an overall agreement among researchers about the positive influence of intrinsic motivation in knowledge processes, such as sharing, transfer, contribution and creation.

In summary, three elements associated with people are found to influence, to some extent, the development of KMCs. These are members with T-shaped skills, extrinsic motivation and intrinsic motivation.

People in Social Enterprises

Two different issues have distinguished the concept of 'people' associated with SEs, one is the Social Entrepreneur (SEneur) and the other is the member of the SE. Although there is an important corpus of literature exploring motivations, abilities and skills of conventional entrepreneurs, the empirical evidence of the SEneur being different from its commercial counterpart is limited (Hoogendoorn *et al.*, 2010). The same pattern is found in studies of motivations and characteristics of members of the SE that work parallel with the SEneur to achieve the social mission, but not necessarily under a voluntary scheme.

Some of the literature comparing SEneurs with commercial entrepreneurs (Thompson *et al.*, 2000; Hoogendoorn *et al.*, 2010) agreed that there are not significant differences between them. Both share their leadership and personal qualities, their ambition and drive, their ability to communicate an inspiring mission, the development of relationships and a network of

contacts, and their creativity. In terms of motivations, combinations of motives rather that only one motive also drive both types of entrepreneur (Chell, 2007). Some of the SEneur motives are similar to those of their commercial counterparts, such as self-fulfilment, occupational independence and opportunities for creativity. However, other motives are unique to SEneurs, such as search for solutions to individual distress, and an obligation to one's community or affiliation (Sharir and Lerner, 2006).

Although motivations of SEneurs and members of the SE have not been studied specifically in SE literature, the subject has appeared generally in some empirical studies. For instance, in a study of the reasons for paid staff quitting a SE, Ohana and Meyer (2010) found that, as it has been shown in the non-profit sector (Schepers *et al.*, 2005; Borzaga and Tortia, 2006), SE members are less motivated by money that those who want a job in for-profit organisations, and agree to accept to earn less. The authors found that the motivation of SE members was less money-related and more associated with benefits obtained by the results of collective rather than individual actions. They were motivated by the social mission and social values, the possibility of working with and for people, personal growth, social contacts, and opportunities to learn. These last motives can be associated more with the intrinsic motivation of SEneurs and members of SEs. However, the permanent tension between social and economic orientation of SE can lead to employees no longer identified with the purpose and significance of their job, and decreasing their intrinsic satisfaction for contributing to a cause of general interest.

Concurring with this finding, Shaw and Carter (2007) presented results of a phenomenological study of 80 SEneurs, and observed that the most influencing motivators to create and belong to a SE were primarily associated with their social aims. Factors such as 'belief in the work of the enterprise', 'to affect change and make a difference', 'personal satisfaction' and 'I was inspired' were the most highly ranked factors by SEneurs. Factors such as 'to become my own boss and to be independent' and 'to create personal financial security' were ranked in the lowest levels.

For instance, Manfredi (2005) suggested that by SEs being motivated and aware of the social useful role of their enterprise, they are stimulating their employees to be creative, hard-working, and they are motivating them and creating enthusiasm within their own organisation. This motivation plays an important role in keeping volunteers since they are free to withdraw their labour if they disapprove of their organisation's directions (Doherty *et al.*, 2009).

In summary, the factor 'people', as has been defined in KM literature, presents unique characteristics in the SE sphere, when compared to for-profit organisations. It is clear that SEneurs and SE members have more intrinsic than extrinsic motivation to work in a SE.

However, the tension between social and economic orientation of the SE can cause employees to feel they are losing their initial motivations resulting in decreasing performance, loss of interest or, at worst, actually leaving the SE.

3.2.1.3 Structure

Structure can refer to '*an organisational internal pattern of relationship, authority and communication'* (Fredrickson, 1986, p282). Two dimensions of organisational structure, centralisation and formalisation, appear to have the greatest implications for strategic decision-making and are often vital to organisational performance (Fredrickson, 1986; Lee and Grover, 1999). Empirical evidence indicates that these elements are not independent (Child, 1972).

Centralisation refers to the extent to which the power of decision-making and activities' evaluation is concentrated at the top levels of the organisation (Caruana *et al.*, 1998; Lee and Grover, 1999). Although this structure is an obvious way to coordinate an organisation's decision-making process, Mintzberg (1979) suggested that an individual does not have the cognitive capacity, information or knowledge that is needed to understand all the decisions that face an organisation. Therefore, it is not surprising that strategic and organisational literature often related higher levels of centralisation with:

- Reduction of creativity solutions (Lee and Choi, 2003);
- Reduction in employees' opportunity for input and perceptions of control (Andrews and Kacmar, 2001);
- Reduction in communication (Burns and Stalker, 1961);
- Reduction in employees' satisfaction and motivation (Dewar and Werbel, 1979);
- Increased inflexibility, slow innovation, and resistance to change (Ghoshal and Bartlett, 1995); and
- Inhibition of entrepreneurial behaviour (Caruana *et al.*, 1998).

Considering these possible disadvantages of centralised structures, KM contributors have emphasised the importance of maintaining a decentralised structure in order to enhance the effective management of knowledge. Some of these advantages are listed in **Table 3.4**.

Table 3.4 - Advantages of decentralised structures for KM

Knowledge activity	Advantage	Authors
Knowledge creation	Foster the spontaneity, experimentation, and freedom of expression	(Miller, 1971; Graham and Pizzo, 1996)
	Stimulate the creativity and adoption of innovation	(Miller, 1971; Khandwalla, 1977; Susanty *et al.*, 2012)
	Allow employees to take better advantage of their individual capabilities, to generate organisation routines and to increase the value of their contributions thanks to the freedom of action they are given	(Claver-Cortés *et al.*, 2007)
Knowledge sharing	Give employees the necessary authorisation	(Allameh *et al.*, 2011)
	Encourage employees to participate in more decision making activities than they would otherwise	(Burns and Stalker, 1961; Liao *et al.*, 2011)
	Facilitate interaction, dialogue, team work and frequency of communication among individuals in different units	(Burns and Stalker, 1961; Bennett and Gabriel, 1999; Wong and Aspinwall, 2004; Claver-Cortés *et al.*, 2007; Susanty *et al.*, 2012)
	Empower employees to proactively participate in organisational management and promote a culture of openness and trust	(Wang and Ahmed, 2003)

Concurring with the previous points, empirical studies listed in **Table 3.5** have demonstrated that decentralisation, in terms of non-hierarchical structure, have a significant positive relationship with various KM and organisational outcomes. Other studies have not identified any significant relationship between decentralised structures and KM processes because of national idiosyncratic (Nguyen *et al.*, 2009), or functional obstacles (Allameh *et al.*, 2011).

Table 3.5 - Empirical studies of the relationship between Organisational Structure and KM

Type of relationship	Outcome (dependent variable)	Authors
Decentralisation		
Positive	Knowledge sharing	(Tsai, 2002; Al-Alawi *et al.*, 2007)
	Knowledge creation – Organisational performance	(Lee and Choi, 2003)
	KM effectiveness – Organisational effectiveness	(Zheng *et al.*, 2010)
	Knowledge transfer	(Susanty *et al.*, 2012)
	Knowledge enablers	(Gholipour *et al.*, 2010)
	KM processes	(Lee and Lee, 2007)
	KMS enablers	(Gururajan and Tsai, 2013)
	KM mediated by Social Interaction	(Chen and Huang, 2007)
	KMC	(Liao *et al.*, 2011)
No relationship	Competitive advantage	(Nguyen *et al.*, 2009)
	KM processes	(Allameh *et al.*, 2011)
Informal		
Positive	KMC	(Gold *et al.*, 2001)
	KMC – Organisational performance	(Mills and Smith, 2011)
	Knowledge enablers	(Gholipour *et al.*, 2010)
	KMS enablers	(Gururajan and Tsai, 2013)
	KM mediated by Social Interaction	(Chen and Huang, 2007)
No relationship	Knowledge creation – Organisational performance	(Lee and Choi, 2003)
	KM processes	(Allameh *et al.*, 2011)
	Competitive advantage	(Nguyen *et al.*, 2009)
Negative	Knowledge sharing	(Yang and Chen, 2007)
	KMC	(Liao *et al.*, 2011)

Formalisation refers to the extent to which an organisation uses rules and procedures to prescribe roles and activities of the various organisation members (Lee and Grover, 1999). It specifies 'how', 'where' and by 'whom' tasks are to be performed (Fredrickson, 1986; Lee and Grover, 1999). High levels of formalisation have the benefit of eliminating role ambiguity, but also limit members' decision-making discretions. Consequently, contrasting positions and discussions may be found in the literature, as detailed in **Table 3.6**.

Table 3.6 – Impact of Formalisation in organisational processes

Type of impact	Impact	Authors
Positive	Environmental complexity	(Lee and Grover, 1999)
	Perceptions of procedural justice to the extent that formal policies and procedures are communicated throughout the organisation	(Andrews and Kacmar, 2001)
	During the implementation stage of innovation	(Zaltman *et al.*, 1973)
	Developing and implementing entrepreneurial products, services, and processes	(Caruana *et al.*, 1998)
	Likelihood of a more re-active behaviour in the strategic process, instead of pro-active	(Fredrickson, 1986)
No impact	Communication technology	(Lee and Grover, 1999)
Negative	During the initiation stage of innovation behaviour	(Zaltman *et al.*, 1973)
	In the organisation when environment is more dynamic	(Lee and Grover, 1999)

Formalisation, in relation to KM, has an important influence in ensuring that the organisation is able to maintain individual creativity in solving organisational objectives without becoming dependent on centralised policies that may restrain innovation, risk-taking, and proactivity (Caruana *et al.*, 1998). Moreover, more informal structures were found to depict actual organisational activities better and to reflect dynamic interaction that is critical to knowledge creation (Wang and Ahmed, 2003; Gholipour *et al.*, 2010).

The contradicting arguments regarding the influence of centralisation and formalisation in KM are reflected in the empirical studies described in **Table 3.5**. An almost overall agreement of the positive influence of decentralised organisational structures on KM can be inferred. On the contrary, studies demonstrated an indecisive position regarding the possible impact of formalisation on KM, evidencing positive, negative or no influence.

Structure in Social Enterprises

Organisational structure of SEs has received little attention in SE literature (Low, 2006). Among the few studies found, special attention was given to define and explore the governance and stakeholders relationships, and to demonstrate the differences between SEs and public and private organisational structures (Mason *et al.*, 2007).

It was noted that some contributors have proposed that SE structures are characterised by extremely flexible, adaptable, participatory and transparent models (Bull and Crompton, 2006; Perrini and Vurro, 2006; Bull, 2007; Galera and Borzaga, 2009). Some possible explanations for this are:

- SEs have not enough reference models and best practices to follow, due to the newness of the sector. Thus, the most appropriate option for them was developing structures that facilitate the share of information and let it flow easily at each level of the organisation (Perrini and Vurro, 2006);
- Because SEs depend on the involvement of other individuals, organisations, committees and volunteers to develop their operations, they required collective organisational structures (Shaw and Carter, 2007); and
- The decision-making power in SEs is not based on capital ownership, but shared with other stakeholders in a coalition government (Defourny and Nyssens, 2006).

An evidence for these participative and democratic structures is the involvement of several stakeholders, including those that are affected by the social activity, in decision-making processes (Bull and Crompton, 2006; Shaw and Carter, 2007; Galera and Borzaga, 2009). This democracy might ensure that the purpose and ways of implementation within the SE would be autochthonously derived, instead of politically or community driven (Reid and Griffith, 2006). Nevertheless, it has been argued that democratic structures also carry some difficulties for SEs (Lyon and Ramsden, 2006; Ohana and Meyer, 2010). The involvement of a large number of staff/entrepreneurs/stakeholders in the decision-making process may result in potential conflict and tension among the different members, calling for advisory roles that can ensure organisational dynamism but, at the same time, allow change that is acceptable to members (Lyon and Ramsden, 2006).

Despite the overall agreement about the flat and participative structure of SEs, various authors have suggested that these structures varied significantly from full participatory environment to hierarchical structures (Shaw and Carter, 2007). This variation can be due to the fact that, when a SE grows and become complex, a lack of structure might inhibit workflow and supress employees' motivations and contributions (Bull and Crompton, 2006). Another reason is associated with the degree to which the SE attempts to integrate or separate its social and financial activities (Dart, 2004; 2010). When the SEs have a more 'for-profit behaviour', such as, market focus and revenue generating, there were normally stewardship structures, whereas in a more 'non-profit behaviour' there were normally democratic models (Low, 2006; Mason *et al.*, 2007). This hybridisation of the structures places a pressure on the SE leadership, which

has to conform to certain organisational standards and structures, whether by choice or force, in order to be successful and sustainable (Reid and Griffith, 2006).

Some factors that can influence SEs in deciding their governance structure were recognised by Huybrechts (2010), based on an empirical study of Fair Trade SEs in Belgium. These are:

- Opportunity to capture different resources, such as, financial resources from banks and government institutions;
- Opportunity to access specialised knowledge and skills;
- Strategic advice (NGOs);
- Personal experience and networks of contacts; and
- The formulation of the organisational goals, looking for a balance between social and political dimensions of the SE.

It can be summarised that SE structures can differ significantly depending on the sector, size, legal form and maturity, but that a general presence of participatory and democratic features can be recognised as one of the core and differentiated elements that make SE different and unique organisations.

3.2.1.4 Culture

Among all the different distinctions of organisational culture that have been proposed in the literature by academics and practitioners (Trice and Beyer, 1993), there is some consensus that culture refers to shared assumptions or practices, values, and norms or artifacts (Schein, 1985). In the deepest level are **practices** related to the formal or informal routines employed by the organisation to undertake work, which have roles and rules to indicate how they are carried out. At the next level are **values** that indicate what an organisation's members believe is worth doing or having. At the third level **norms** define the shared beliefs about how people in the organisation should behave, or what they should do to undertake their work (De Long, 1997; De Long and Fahey, 2000).

In relation to KM, these elements of culture play different roles. For instance, practices are the most visible symbol of culture providing the most direct way of changing behaviour regarding knowledge. Same outcomes can be obtained by defining norms that will reinforce the necessary behaviours over time. On the contrary, values should be the last element when addressing changing efforts due to their 'tacitness' and complexity (De Long, 1997). To explain the relationship between organisational culture and KM, De Long (1997) proposed the following four ways in which culture and knowledge are linked:

i. Culture shapes assumptions about *'what'*, because it defines what knowledge is valuable, what knowledge must be kept inside the organisation, and what knowledge should be transferred outside, or shared to support a core competency and sustain advantages;
ii. Culture mediates the relationship between individual and organisation-level knowledge, because it determines *who* is expected to have what knowledge, as well as who must share it, and who may save it;
iii. Culture creates a context for interaction that determines the value derived from knowledge, because it determines *how* knowledge will be used in a particular situation; and
iv. Culture shapes *how* new knowledge about the internal and external environment is captured, legitimated, or rejected, and distributed throughout the organisation, to change strategic direction and resource allocation faster than competitors.

As may be observed in **Table 3.7**, researchers have studied empirically the relationship between organisational culture and KM outcomes. The majority of those studies found a positive relationship with variables, such as, organisational and KM performance and competitive advantage. Only two studies found no relationship (Yang and Chen, 2007; Mills and Smith, 2011). In both cases, the authors recognised that culture, collectively with other resources, can determine KMCs, although not all are directly linked to performance.

Table 3.7 - Empirical studies of the relationship between Culture and KM

Cultural dimensions studied	Mediator variable (if applicable)	Outcome (dependent variable)	Authors
Positive relationship			
Collaboration Trust Learning	Knowledge creation process	Organisational performance	(Lee and Choi, 2003)
	Effectiveness of Knowledge Transfer	Organisational Performance	(Susanty *et al.*, 2012)
		KM enablers	(Gholipour *et al.*, 2010)
		KMS enablers	(Gururajan and Tsai, 2013)
Collaboration Trust Incentives		KM processes	(Allameh *et al.*, 2011)
Sharing culture Teamwork Trust	Knowledge sharing	Organisational performance	(Waheed *et al.*, 2013)
Adaptability Consistency Involvement Mission	KM effectiveness	Organisational effectiveness	(Zheng *et al.*, 2010)
Teamwork Information Exchange Continuous Improvement		Organisational KMCs	(Romero-Artigas *et al.*, 2013)
Sharing culture		Knowledge transfer performance	(Syed-Ikhsan and Rowland, 2004)
Learning	KM processes	KM performance	(Lee and Lee, 2007)
		Knowledge creation process	(Soon and Zainol, 2011a)
Trust Communication between staff		Knowledge sharing	(Al-Alawi *et al.*, 2007)
Innovative climate Cooperative climate		KM	(Chen and Huang, 2007)
Learning culture	Knowledge Integration Capability	Firm performance	(Kim *et al.*, 2012)
Social interaction culture		Knowledge sharing culture	(Connelly and Kelloway, 2003)
Importance of knowledge to corporate success Value of learning Value of individual expertise Interaction with other groups Clear organisational vision	Knowledge Infrastructure Capability	Organisational effectiveness	(Gold *et al.*, 2001)
		Competitive advantage	(Chuang, 2004)
			(Nguyen *et al.*, 2009)
General		KM performance	(Zaim *et al.*, 2007)
	KM	Organisational effectiveness	(Kaffashpoor, 2013)
	KM Infrastructure Capabilities	Project benefits	(Bakar *et al.*, 2012)
No relationship			
Importance of knowledge to corporate success Value of learning Value of individual expertise Interaction with other groups Clear organisational vision		Organisational performance	(Mills and Smith, 2011)
	Knowledge sharing	Organisational performance	(Yang and Chen, 2007)

Regarding the dimensions of organisational culture assessed in these studies, researchers were using different approaches. Some of these studies used classifications defined previously in cultural behaviour studies, such as the cultural types of Denison and Mishra (1995), and the cultural dimensions of Cameron and Quinn (2006).

Nevertheless, four elements were found to exhibit the most important characteristics of culture that can influence positively KM and organisational outcomes. These are collaboration, trust, learning and development, and mission. These are described as follows:

i. Collaboration**:** is related to the degree to which people in a group actively help one another in their work. Collaboration has been associated with the increase of knowledge exchange across the organisation and with helping to develop a shared understanding of an organisation's internal and external environment through supportive and reflective communication (Lee and Choi, 2003; Gholipour *et al.*, 2010). Moreover, collaboration helps to transform from individual to organisational knowledge, leading to a greater willingness among organisation members to share insights and expertise with each other (De Long and Fahey, 2000). Collaboration also stimulates effective knowledge reuse (Gold *et al.*, 2001).

ii. Trust**:** is associated with the degree of reciprocal faith in others' intentions, behaviours, and skills toward organisational goals. In relation to KM, trust is considered to facilitate open, substantive, proactive and influential knowledge sharing and exchange, and can reduce the fear of risk (Lee and Choi, 2003; Wong, 2005). Trust leads to greater willingness among organisation members to share insights and expertise with each other in order to contribute to the successful performance of their organisation (Wang and Ahmed, 2003; Omerzel *et al.*, 2011). Moreover, trust influences the amount of knowledge that flows both between individuals and from individuals into the organisation's databases, best practices, archives and other records (De Long and Fahey, 2000; Lee and Choi, 2003; Gholipour *et al.*, 2010).

iii. Learning and development**:** is associated with the degree of opportunity, variety, satisfaction, and encouragement for learning and development in organisations. Generally, learning facilitates the creation of new knowledge and can help by increasing employee, and knowledge, retention rates and decreasing costly employee, and knowledge, departure rates (Alavi *et al.*, 2005). Additionally, learning usually supports employees to refine and recombine knowledge from different sources for viewing interesting and novel patterns, leading to break-through discoveries, and the possibilities of knowledge creation (Nonaka, 1994; Gholipour *et al.*, 2010).

i. Mission**:** is associated with the degree to which people share the definition or the organisation's purpose. The element 'mission' has not been included as a dimension of culture very often in KM empirical studies. Nevertheless, researchers have proposed that an articulated and communicated mission statement is important to engender a

sense of involvement and contribution among employees (Ledford *et al.*, 1995; Lock and Kirkpatrick, 1995; Kenny and Reedy, 2006). This enables individuals to coordinate their activities to achieve common purposes, even in the absence of direction from their managers. Additionally, it has been argued that an explicit and stated vision encourages the growth of knowledge within the organisation (Lock and Kirkpatrick, 1995; Gold *et al.*, 2001; Kenny and Reedy, 2006; Zheng *et al.*, 2010).

These relationships between culture and KM demonstrate that shaping culture is central in an organisation's ability to manage its knowledge more effectively (De Long, 1997; Davenport *et al.*, 1998). This is because culture guides the behaviour of the enterprise's employees and is a crucial driver of the successful implementation and adaptation of the KM system (Kipley *et al.*, 2008). As Ndlela and Du Toit (2001, p153) asserted:

> *'If KM is to be an integrated aspect of how work gets done in an enterprise, it must become an integrated aspect of the culture'.*

Culture in Social Enterprises:

Organisational culture elements in Social Enterprises (SEs) have been hardly mentioned explicitly in literature and little research has been developed in the subject (Paton, 2003; Doherty *et al.*, 2009; Ridley-Duff and Bull, 2011). Nevertheless, some academics have called attention to cultural characteristics and their importance for SEs.

Regarding collaboration and trust, in a study of Shaw and Carter (2007), Social Entrepreneurs (SEneurs) described their cultures as 'open' and 'creative', where positive environments, people listening, different thinking, caring and friendly people were the common behaviours within SEs. Similarly, Austin *et al.* (2006) advised that SEs maintained cultures with strong values related to their social and environmental mission, such as solidarity, ethics and trust. These values help the SE to create internal cohesion (von der Weppen and Cochrane, 2012).

In association with learning culture in SEs, Bull and Crompton (2006) undertook a qualitative study with 15 Social Entrepreneurs in UK and identified two different types of organisations. One is the 'more-rational business model' SEs that were involved in skill-based training, processes and procedures, training manuals and some mandatory training. In the other type, 'less-structured' SEs, training tended to be more individual and personal orientated, allowing people to develop their own agenda through creative environment. The authors also observed that people in SE were encouraged to 'have a say and feel' value, where managers led and championed a learning culture.

Nevertheless, SEneurs were concerned about the difficulty to find training that was specifically focused, compatible or relative, or that could be easily transferable into their environments, and that was affordable and accessible. This scarcity of resources was highlighted by Alvord *et al.* (2004), who identified that only large scale SEs were involved and were investing in high levels of organisational learning, and staff development.

In terms of employees development, Bull (2007) found that very few SEs' managers indicated they had formal development plans, but they argued that their approach to staff development encouraged a learning culture in the organisation through the provision of a wide variety of training opportunities. The study also found that SEs place significant effort into networking and collaboration with other like-minded organisations in order to open external knowledge avenues and incentive, participative, learning cultures.

Chell (2007) compared the culture of SE with the culture of normal, for-profit organisations. She found that the former are based on principles of voluntarism, ethical behaviour and a mission with a social cause, whilst the latter are based on an employment contract, pragmatism and instrumental actions, with a view to creating shareholder value. This raises the question of whether such different socio-economic cultures can ever be reconciled. In this respect, contributors have identified a growing tension between social missions of SEs and the necessity of earned-income activities. These would normally result in managerial activities and mechanism that improve efficiency and legitimacy but, at the same time, can exert pressure on the organisations' culture (Austin, 2006; Doherty *et al.*, 2009). This pressure might result in negative effects in the democratic and participatory nature of SE and favour control over consultation (Doherty *et al.*, 2009).

Overall, academics and practitioners agree that SE culture possesses unique characteristics that enhance KM and organisational performance. The most important characteristic is associated with its social mission and ethical practices, which stimulate employees, both paid and volunteers, to work harder and unite with the organisational mission. Nevertheless, there are other aspects of SE that could affect its organisational culture. For instance, the scarcity of resources might restrict the SE options to invest in organisational learning, transferring the responsibility of supplying knowledge to external authors, such as government, partnerships or social networks. Moreover, the constant tension between their social and economic objectives can add pressure to the culture of the SE, resulting in a detrimental effect on the employees' commitment to the SE and its organisational climate.

3.2.2 Process capability

The process capability represents the knowledge activities within the organisation that leverage the organisational capability, as Leonard-Barton (1995, p8) asserted '*activities –not goals or financial rewards or even skills (until they are activated) – create a firm's capacity*'. This capability should be present in order to store, transform and transport knowledge in an efficient manner throughout the organisation (Gold *et al.*, 2001). As was discussed in Chapter 2 (Section 2.4.4 Page 40), contributors have varied significantly in the classification of process capabilities, but it was inferred that this classification depends on their position regarding the main role of the firm. This research draws upon the Knowledge Based View (KBV) theory that proposed both creation and integration of knowledge as the main roles of the firm (Kogut and Zander, 1992; Nonaka, 1994; Grant, 1996b; Grant, 1996a). Following this position, Gold *et al.* (2001) proposed four activities that create, control and integrate the knowledge necessary for a company's current and future operations. These are Acquisition, Conversion, Application and Protection, which support the creation and integration of knowledge. These are, therefore, the knowledge activities studied in this research and are described in the following sections. Differently from the Organisational Capabilities, no specific reference to these processes in SEs is presented due to the paucity of research studying KM in SEs (see Chapter 2, Section 2.2.3.3 Page 26).

Nevertheless, it is possible that these limited references do not indicate that SEs are not managing their knowledge, but that they are actually managing knowledge more informally, without using KM terminology. This concurred with previous studies of KM in SMEs (Uit Beijerse, 2000; McAdam and Reid, 2001; Holm and Poulfelt, 2003; Desouza and Awazu, 2006; Hutchinson and Quintas, 2008). Therefore, the concepts of knowledge processes are only derived from theoretical assumptions and empirical research in other sectors. It is in the empirical element of this research that this capability is assessed in SEs.

3.2.2.1 Acquisition

Knowledge acquisition is the process orientated towards obtaining knowledge by developing new content and replacing existing content within the organisation's tacit and explicit knowledge base (Pentland, 1995; Nonaka *et al.*, 2000b; Gold *et al.*, 2001). This process opens new productive opportunities, enhances the firm's ability to exploit these opportunities, reduces uncertainty, and encourages process or product innovations (Yli-Renko *et al.*, 2001; Ju *et al.*, 2006). Various KM contributors have named this process differently, such as creation, collection, capture, identification, import, generation, development, production and innovation (Heisig, 2009). Integrating this, Gold *et al.* (2001) gave a broader meaning to acquisition associating it with:

i. Innovation, as a result of the creation of new knowledge from the application of existing knowledge; and
ii. Improvement of the use of existing knowledge and more effective acquisition of new knowledge.

To acquire knowledge, an organisation needs to create new knowledge. Significant KM contributors have proposed different strategies for knowledge creation within an organisation (Nonaka, 1994; Madhavan and Grover, 1998; Floyd and Wooldridge, 1999; Nonaka *et al.*, 2000a; Von Krogh *et al.*, 2000; de Lima *et al.*, 2003; Bell DeTienne *et al.*, 2004; Shankar and Gupta, 2005). One of the most salient strategies was proposed by Nonaka *et al.* (2000a; 2000b) with their SECI process for knowledge creation and the concept of '*ba*' as the special context for this creation. The SECI process involves four modes of conversion between tacit and explicit knowledge, which are (Nonaka and Takeuchi, 1995; Nonaka *et al.*, 2000a; Nonaka *et al.*, 2000b):

i. Socialisation: from tacit to tacit knowledge. Tacit knowledge held by one individual is handed over, and becomes the tacit knowledge of another. The main object of this mode is experience, because it is impossible to share an individual's thinking process without the medium of shared experience. As a knowledge creation activity it is defined by individual and face-to-face interaction, where members share experiences, feelings, emotions and mental models, thus, increasing existing tacit knowledge;

ii. Externalisation: from tacit to explicit knowledge. People convert some proportion of their tacit knowledge into explicit knowledge by conceptualising and articulating it. As a knowledge creation activity, it represents the collective and face-to-face interactions where mental models and experiences are shared, converted into common terms, and articulated as concepts, hence, facilitating the conversion of tacit to explicit knowledge;

iii. Combination: from explicit to explicit knowledge. Existing information is reconfigured through the sorting, adding, re-categorising, and re-contextualising of explicit knowledge. As a knowledge creation activity it refers to collective and virtual interactions; and

iv. Internalisation: from explicit to tacit knowledge. An individual absorbs knowledge that others hold, and converts it into actions and practices that are deeply related to tacit knowledge. As a knowledge creation activity, it is defined by individuals and virtual interaction.

Because knowledge needs a context to be created, the authors proposed the '*ba*' concept, which provides the energy, quality and place to perform the individual conversions and to

move along the SECI knowledge spiral. By understanding the concept of '*ba*', as well as its relationship with the modes of knowledge creation, an organisation can enhance its knowledge creation capability (Alavi *et al.*, 2005).

Another important activity associated with the acquisition of knowledge is capturing expertise from people and importing knowledge from external sources. This can help the enterprise in promoting learning and providing opportunities to recombine current knowledge and create new knowledge (Leonard-Barton, 1995; Teece, 1998; Yli-Renko *et al.*, 2001; Milton, 2007). Thus, the organisation can acquire knowledge either internally or externally.

Internally, members can acquire knowledge by collaboration with others, and by finding hidden knowledge that is already in the organisation and sharing it with others (Leonard-Barton, 1995; Nonaka and Takeuchi, 1995; Ju *et al.*, 2006). This knowledge sharing transforms and exploits the new knowledge throughout the organisation, adapting, transferring and integrating value-creating resources, such as experience-based knowledge, into operating routines available to others in the firm (Leonard-Barton, 1992; Nonaka and Takeuchi, 1995; Bogner and Bansal, 2007; Gharakhani and Mousakhani, 2012).

Externally, organisations can collaborate with other firms by sharing knowledge, technologies or personnel, or by collaborating with customers, clients and suppliers (Leonard-Barton, 1995). In order to acquire successfully the knowledge from external sources, organisations need to develop absorptive capacities (Cohen and Levinthal, 1990). These are the abilities to identify, access and assimilate knowledge from external sources.

Empirical studies have suggested a strong and positive relationship between knowledge acquisition activities and performance measures. These studies are listed in **Table 3.8**.

Table 3.8 - Empirical studies assessing influence of knowledge acquisition on organisational outcomes

Acquisition processes studied	Mediator variable (if applicable)	Outcome (dependent variable)	Authors
Knowledge acquisition		Organisational effectiveness	(Gold *et al.*, 2001)
		Organisational effectiveness / Innovation	(Lee and Sukoco, 2007)
		Organisational performance	(Mills and Smith, 2011)
			(Gharakhani and Mousakhani, 2012)
		Innovation	(Ju *et al.*, 2006)
	Organisational factors	CRM success	(Azad and Kiani, 2013)
Knowledge acquisition / documentation / sharing / creation		Perceived historical performance	(Liang *et al.*, 2007)
Knowledge generation		KM performance	(Zaim *et al.*, 2007)
Knowledge creation (SECI)		Organisational performance	(Lee and Choi, 2003)
		KM satisfaction	(Becerra-Fernandez and Sabherwal, 2001)
Knowledge generation		KM performance	(Lee and Lee, 2007)
Knowledge obtention / sharing		Competitiveness	(Liu *et al.*, 2004)
Knowledge creation / sharing	Knowledge integration capability	Performance	(Kim *et al.*, 2012)
Knowledge creation	Organisational creativity	Organisational performance	(Soon and Zainol, 2011b)

Further to the previous discussion and the empirical studies that have demonstrated the positive influence of knowledge acquisition activities and organisational outcomes, it is expected that these activities will have an important influence on developing PC in SEs.

3.2.2.2 Conversion

Knowledge conversion activities are those orientated towards making existing knowledge useful (Gold *et al.*, 2001). Thus, the knowledge that was captured from various sources, both internal and external, requires to be converted into organisational knowledge for its effective use by the firm (Lee and Suh, 2003). According to the KBV theory, this conversion implied the transition from data to information and then to knowledge (Bhatt, 2001). Conversely, because most knowledge remains in an individual's mind in the form of tacit knowledge, the organisational knowledge creation theory proposed by Nonaka (1994) defined this conversion as actually the transition from tacit to explicit knowledge and *vice versa*.

Following the first line of thought, organisations are required to convert data effectively and efficiently into information and information into organisational knowledge to maximise the benefits from the acquisition and conversion processes (Bhatt, 2001). This conversion can

result in the distribution of knowledge by turning isolated knowledge or experiences into knowledge so that the whole enterprise can use it (Büchel and Probst, 2000), or it can result in the integration of knowledge that may reside in different parts of the organisations, reducing redundancy and improving efficiency by eliminating excess work (Grant, 1996b; Gold *et al.*, 2001). Therefore, the main objective of knowledge conversion activities is organising and structuring the knowledge of potential future value by selecting, storing and regularly updating that knowledge, so that members of the enterprise, as well as stakeholders, can access and distribute it within the organisation (Lee and Suh, 2003).

Relating the discussion above to the organisational knowledge creation theory, Gold *et al.* (2001) suggested that, by coordinating and integrating knowledge, organisations carefully transform aspects of tacit knowledge into explicit knowledge. Hence, the conversion of knowledge not only implies the relationship between data, information and knowledge, but it also involves the tacit-ness and explicit-ness of that knowledge.

According to Nonaka and von Krogh (2009), the conversion from tacit and explicit knowledge is essential for expanding knowledge beyond what a single person might know. This is because individual tacit knowledge may lose some of its tacit-ness through the process of externalisation, becoming more explicit. This can then be a basis for reflection and conscious action, which is less costly to share with others.

The conversion from tacit to explicit knowledge and vice versa has been operationalised through the SECI cycle, which describes the process of knowledge creation as well. Consequently, the four knowledge conversion activities of the SECI cycle, socialisation, externalisation, combination and internalisation, have been explained in the previous section of knowledge acquisition activities.

Corresponding to the previous discussion, empirical studies listed in **Table 3.9** had demonstrated a positive relationship between knowledge conversion activities and organisational outcomes, such as, organisational effectiveness, innovation, competitiveness, performance and general KM performance.

Table 3.9 - Empirical studies assessing influence of knowledge conversion on organisational outcomes

Conversion processes studied	Mediator variable (if applicable)	Outcome (dependent variable)	Authors
Knowledge conversion		Organisational effectiveness	(Gold *et al.*, 2001)
		Organisational effectiveness/Innovation	(Lee and Sukoco, 2007)
		Innovation	(Ju *et al.*, 2006)
Knowledge coding and storage		KM performance	(Zaim *et al.*, 2007)
Knowledge facilitating / representing / embedding		KM performance	(Lee and Lee, 2007)
Knowledge storing / refining		Competitiveness	(Liu *et al.*, 2004)
Knowledge codification	Knowledge integration capability	Performance	(Kim *et al.*, 2012)

Considering the empirical evidence, as well as the previous theoretical discussions, conversion activities are expected to have a positive influence in the development of PC in SEs.

3.2.2.3 Application

Knowledge application processes are concerned with the actual use of knowledge, which is making it more active and relevant for the organisation in creating value (Bhatt, 2001). With the purpose of creating that value, organisational knowledge needs to be used in the firm's products and services. Thus, the role of organisations is not only creating knowledge, but integrating and applying that knowledge (Kogut and Zander, 1992; Leonard-Barton, 1992; Grant, 1996b; Spender, 1996; De Long, 1997; Sveiby, 2001; Eisenhardt and Santos, 2002; Sarin and McDermott, 2003).

There are a number of ways by which an enterprise can apply its knowledge resources. For instance, an organisation can (Wiig, 1999; Bhatt, 2001; Gold *et al.*, 2001):

- Apply knowledge from past mistakes to solve new problems;
- Repackage available knowledge in a different context;
- Relate sources of knowledge available for solving problems;
- Raise the internal measurement standard;
- Apply stored knowledge for improved efficiency;
- Train and motivate people to think creatively and use their understanding in the firm's products, processes, or services;
- Use knowledge to adjust strategic direction; and
- Leverage understanding, action capabilities, and other intellectual assets to attain the

enterprise's ultimate goals.

By effectively applying good knowledge, organisations can obtain certain benefits that have been studied by KM contributions in recent years. Some of these positive outcomes are (Grant, 1996a; Wiig, 1999; Gupta *et al.*, 2000; Gold *et al.*, 2001; Sarin and McDermott, 2003; Gharakhani and Mousakhani, 2012):

- Ability to create, produce, and deliver superior quality products and services that match present and future market demands;
- Improvement in the degree to which innovations and changes occur, are captured, communicated, and applied, as a consequence of the learning process;
- Increase the number of patents, trademarks, copyrights and trade secrets;
- Improvement in the degree to which undesirable and dysfunctional personnel or system behaviours are controlled and corrected;
- Ability of individuals, teams, units, and the enterprise itself to deal with unexpected events, opportunities, and threats;
- Individuals make fewer mistakes or improve their efficiency and reduce redundancy;
- Improvement in customer satisfaction, financial indicators and effectiveness of business processes;
- Increase in profitability and ensure long-term viability; and
- Ability to quantify critical success factors.

Empirical studies listed in **Table 3.10** corroborated the previous theoretical outcomes, and confirmed a positive relationship between knowledge acquisition activities and organisational outcomes, such as, organisational effectiveness, performance, innovation and general KM performance.

Table 3.10 - Empirical studies assessing influence of knowledge application on organisational outcomes

Application processes studied	Mediator variable (if applicable)	Outcome (dependent variable)	Authors
Knowledge application		Organisational effectiveness	(Gold *et al.*, 2001)
		Organisational effectiveness / Innovation	(Lee and Sukoco, 2007)
		Organisational performance	(Mills and Smith, 2011)
			(Gharakhani and Mousakhani, 2012)
		Innovation	(Ju *et al.*, 2006)
	Organisational factors	CRM success	(Azad and Kiani, 2013)
Knowledge utilisation / transfer		KM performance	(Zaim *et al.*, 2007)
Knowledge usage / transferring / measuring		KM performance	(Lee and Lee, 2007)
Knowledge transfer	Knowledge integration capability	Performance	(Kim *et al.*, 2012)

The significant number of theoretical and empirical studies discussed above have demonstrated that the real value of knowledge assets is realised when these assets are used to create products and frameworks for solving problems and dealing with challenges, as well as delivering services (Grant, 1996b; Spender, 1996; Wiig, 1999). Thus, knowledge application is considered a focal element in the development of KMCs in SEs.

3.2.2.4 Protection

Knowledge protection activities are associated with the effective control and protection of knowledge within an organisation from inappropriate or illegal use (Gold *et al.*, 2001; Mills and Smith, 2011). Some of the activities concerning knowledge protection involve copyright, patents and IT systems that restrict and control access to knowledge and information (Lee and Yang, 2000). Although knowledge protection is a crucial activity for keeping the competitive advantage characteristics of knowledge, that they are rare and non-replicable, this activity has received little attention in the literature (Bloodgood and Salisbury, 2001; Jordan and Lowe, 2004). The three empirical studies listed in **Table 3.11** found knowledge protection activities to influence general organisational performance, by ensuring and supporting the enterprises' ability to generate or preserve a competitive advantage (Gold *et al.*, 2001; Lee and Sukoco, 2007; Mills and Smith, 2011).

Table 3.11 - Empirical studies assessing influence of knowledge protection on organisational outcomes

Protection processes studied	Outcome (dependent variable)	Authors
Knowledge protection	Organisational effectiveness	(Gold *et al.*, 2001)
	Organisational performance	(Mills and Smith, 2011)
	Organisational effectiveness / Innovation	(Lee and Sukoco, 2007)

However, these papers and other academics emphasised that certain forms of knowledge, such as tacit knowledge, cannot be completely protected through property laws or rights (Carlsson, 2001; Randeree, 2006). Thus, it is necessary to use alternative forms more related to employees' behaviour and conduct, such as incentive alignment and job designs (Hansen *et al.*, 1999). One option can be contracting with employees regarding confidential information and its secrecy in case they leave. Moreover, enterprises can develop processes and procedures that recognise and promote knowledge rights, supported by educational campaigns and employees' awareness (Lee and Yang, 2000). Gold *et al.* (2001) proposed the following activities as necessary for protecting organisational knowledge:

- Protecting knowledge from inappropriate use inside the organisation;
- Protecting knowledge from inappropriate use outside the organisation;
- Protecting knowledge from theft from within the organisation;
- Protecting knowledge from theft from outside the organisation;
- Offering incentives that encourage the protection of knowledge;
- Using technology that restricts access to some sources of knowledge;
- Developing extensive policies and procedures for protecting trade secrets;
- Protecting knowledge embedded in individuals;
- Identifying clearly knowledge that is restricted; and
- Communicating clearly the importance of protecting knowledge.

Despite the clear importance of protecting organisational knowledge, academics have identified how some protection activities can inhibit the effective transfer and sharing of knowledge among members (Norman, 2004; Randeree, 2006; Khamseh and Jolly, 2008; Liao and Wu, 2010). This is because, by restricting access to knowledge, the enterprise is obstructing its ability to transfer knowledge and learn from employees. Thus, employees will respond to the enterprise limitations of information sharing by further reducing their own sharing. Another limitation on protecting knowledge is the different kinds of cost involved, such as, maintaining a protection infrastructure, organisation costs, and possible loss of communication due to the protection of knowledge from transfers within the enterprise

(Liebeskind, 1996; Bou-Llusar and Segarra-Ciprés, 2006).

Notwithstanding the possible knowledge transfer implication, knowledge protection processes should be included as an important tool for establishing and maintaining competitive advantage, as well as creating value for the organisation (Lee and Sukoco, 2007). Moreover, under the rapid technology evolution to which SEs are liable, the use of the Internet as a platform for hosting their knowledge assets may be a common practice, as it is for SMEs (Lee and Lan, 2011). This implies that SEs' knowledge is highly exposed to the public domain. Thus, SEs should keep their knowledge protect safety and accessed only by authorised members. This discussion supports an expected positive relationship between knowledge protection activities and the development of Knowledge Processes Capabilities.

3.2.3 Organisational Performance of Social Enterprises

To define accurately the organisational performance of SEs it is required to balance the traditional economic assessment with the non-financial assessment of organisational performance, as has already been proposed by several authors (Kaplan and Norton, 1992; Kaplan and Norton, 1996; Edvinsson and Malone, 1997; Neely *et al.*, 2002). However, these assessments are normally associated with the achievement of organisational goals and, as Etzioni (1960) suggested, the goal model may not supply the best possible frame of reference for performance in different organisational types, because it compares the ideal model with the real. Therefore, assessing the impact of KMCs on organisational performance in SEs would require the inclusion of SE conditions that, as was discussed in Chapter 2, differ significantly from conditions in the private, public and non-profit sectors.

In addressing these issues specifically for SEs, academics and practitioners have attempted to import successful performance measure tools from the private sector to SEs. Although there is still limited theoretical and empirical research in this field (Bull and Crompton, 2006), important contributions can be traced in the literature of SE relating performance measure systems. Four models were identified that employed the Balanced Scorecard (BSC) system (Kaplan and Norton, 1992; Kaplan and Norton, 1996) as a base for developing customised models to measure performance in SEs (Paton, 2003; Somers, 2005; Bull and Crompton, 2006; Meadows and Pike, 2010). These are discussed in the following sections.

3.2.3.1 Paton (2003) 'the dashboard'

The first system identified is proposed by Paton (2003) and is named 'the dashboard'. The author suggested that a difficulty in exporting the BSC to SE is the 'double-bottom line' of social and financial objectives of the SEs, thus a financial perspective cannot be 'pre-eminent'. Another difficulty is related to the customer perspective that needs to be duplicated to include

the various different concerns of multiple stakeholders. Moreover, BSC assumes that considerable staff resources are available to gather, analyse and report information. To address these difficulties, Paton proposed 'the dashboard' including five boxes, as is illustrated in **Figure 3.2**.

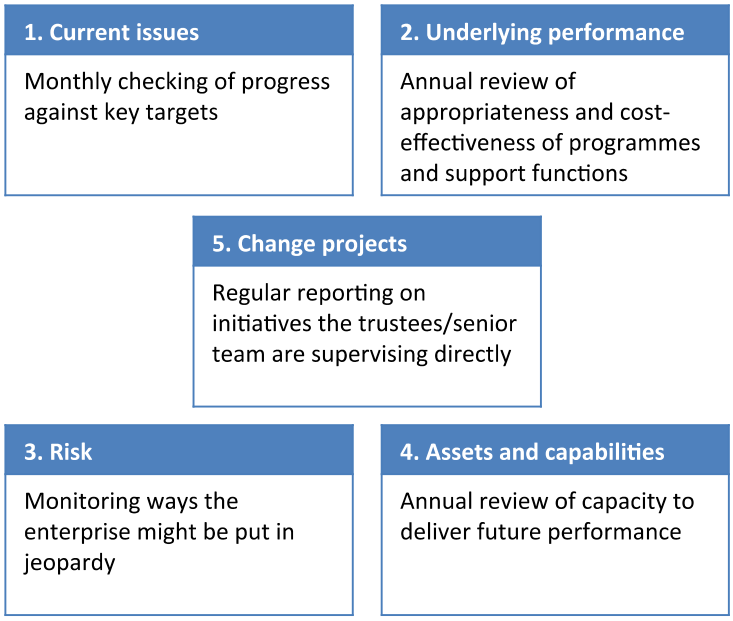


Figure 3.2 - The dashboard' by Paton (2003)

The first box is concerned with control reports for each of the main programmes and functional areas. The second box is a more strategic review and needs to evaluate each main programme in terms of social success and business success. The third box is related to the monitoring of specific risks to which a SE knows it is exposed. The fourth box is associated with intangible capabilities, such as intellectual capital, but the author recognised that this element has been considered intuitively and rarely addressed by SEneurs. The last box is related to how change, in the end, delivers the benefits intended.

This model was a pioneer for performance measure in Social Enterprises, and represented a first attempt to customise successful management tools from other sectors to the peculiarities of the Social Enterprise sector. However, it has been criticised for being more of an operational level tool than a strategic tool, and for being time-consuming to initiate (Bull, 2007).

3.2.3.2 Somers (2005) Social Enterprise Balanced Scorecard

The second system is named Social Enterprise Balanced Scorecard and was developed by Somers (2005) with the support of the New Economic Foundation from UK (**Figure 3.3**). Concurring with Paton, this model recognised that a combination of social and financial impact factors, which are emphasised in all stages of their production process, is an intrinsic part of SEs' identities. Therefore, this model also amended the original BSC system by including both

social and financial goals, and by widening the customer perspective to include larger groups of stakeholders. However, this system differentiates from the previous in broadened the financial perspective to focus on sustainability.

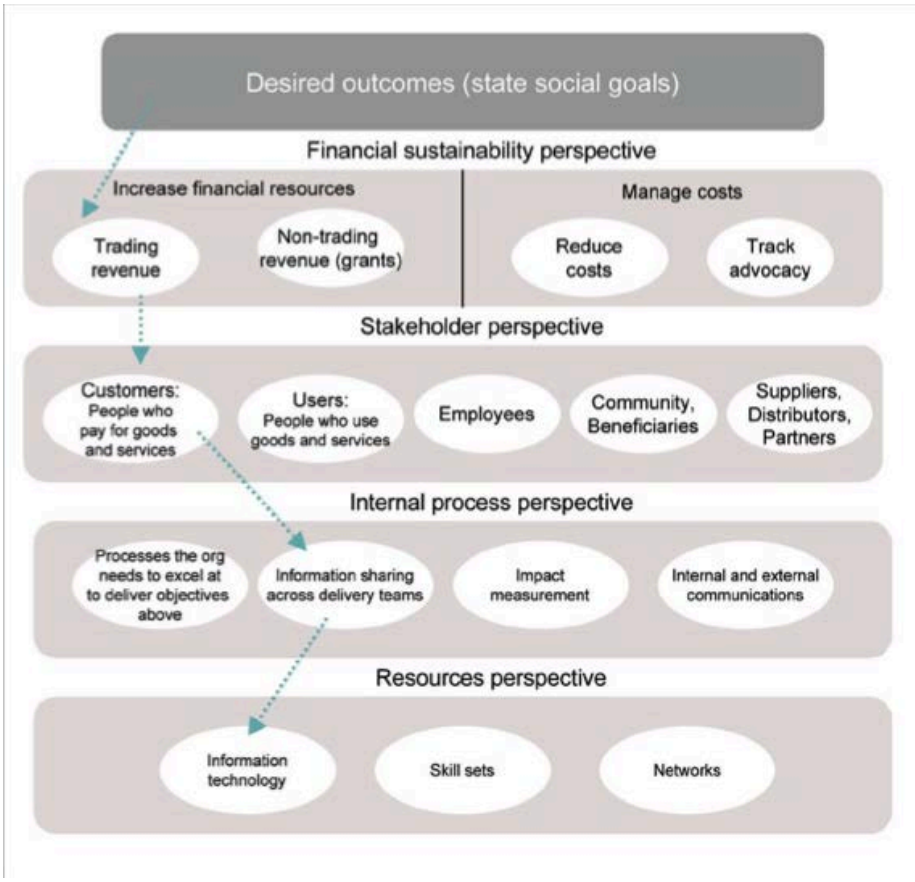


Figure 3.3 - Social Enterprise Balanced Scorecard by Somers (2005)

3.2.3.3 Bull and Crompton (2006) Balanced

The third system is named 'Balance' and was developed by Bull and Crompton (2006) (**Figure 3.4**). The model kept the same perspectives of the original BSC system, contrary to Paton's system, but identified issues only related to SEs *per* perspective, based on a qualitative study with SEneurs. The return perspective, originally financial in the BSC, illustrates the multi-bottom line of SEs, which was also discussed by the previous models. The learning organisation perspective, originally learning and growth in the BSC, does not include the original growth perspective since it argued that not all SEs want to grow. This perspective deals with the ability to change and improve, and with the difficulties in measuring, for example, culture, learning and creativity. The stakeholder environment perspective, originally customer in the BSC, builds on the previous models and is basically related to marketing. The internal activities perspective, originally internal business process in the BSC, addresses issues of the working, structure and systems of organisations. Lastly, the visioning perspective brings together aspects of the other

perspectives and relates to mission, business plans and how these are communicated to various stakeholders.

This system is considered more a strategic tool that an operational tool for SEneurs, and can be a more accurate tool for assessing performance in SE, since it can be used as a self-assessment for SEneurs, or in consultation with the members of the SE. Additionally, this model addressed the difficulties identified in previous systems regarding multi-bottom line and multi-stakeholder, but missed the broadening of the financial perspective to focus on sustainability included in the Somers system.

Figure 3.4 - Balanced by Bull and Crompton (2006)

3.2.3.4 Meadows and Pike (2010) Social Enterprise Scorecard

The most recent system identified is called 'Social Enterprise Scorecard' and was developed by Meadows and Pike (2010). This model includes four dimensions, named differently from the original BSC system (**Figure 3.5**). The model conserved the meaning of the two first perspectives, business model and financial return, similar to the original BSC system. However, the last two perspectives, organisational development and social return are concepts particularly relevant to SEs. Additionally, the model includes three boxes that represent the different time perspectives.

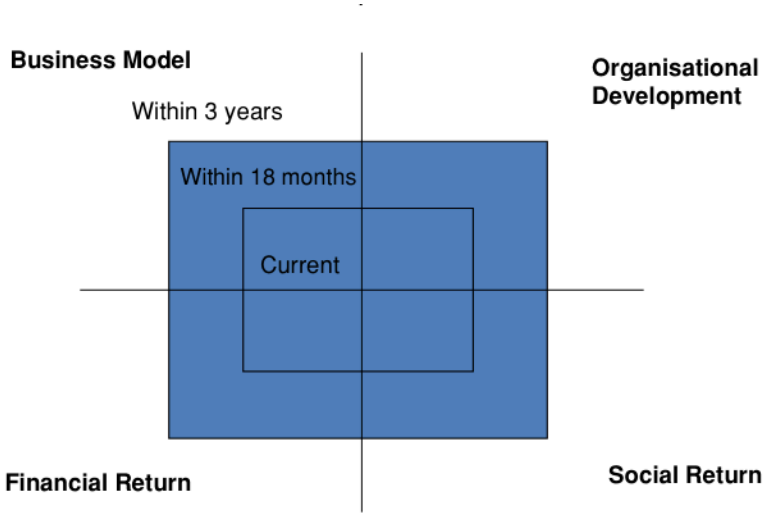


Figure 3.5 - Social Enterprise Scorecard by Meadows and Pike (2010)

Although this system includes a relevant element for SEs, which is the social return, this system does not include the previously discussed systems as reference. Therefore, important lessons learned from those models, such as the incorporation of various stakeholders and the necessity of a more broadened financial perspective, were not taking into consideration.

Overall, the four systems presented above confirmed what has been discussed in previous sections and in Chapter 2. Social Enterprises are different types of organisations from their private, public and non-profit counterparts, which required the customisation of successful management theories already successfully implemented in other sectors. The aforementioned systems recognised certain difficulties and differences when measuring performance in SEs. Such differences are associated with their multi-bottom line, related to social, environmental and economic goals, their multi-stakeholder dimension, and a broader financial perspective to focus on sustainability. These customised systems for measuring performance in SEs permit the identification of the elements of Organisational Performance, which are

- Return (creation of social/environmental value, income and expenditure);
- Workforce and Innovation;
- Customer and stakeholder environment; and
- Internal activities (teamwork and ability to deal with change).

It is recognised by the creators of the various systems discussed above, that all SEneurs are not accurately measuring and assessing their performance with these systems, or any other similar tool. The reasons are mainly because SEs lack the managerial resources needed to operate such complex systems, and might see impact measurement as a burden, rather than a useful

tool (Bull, 2007). Therefore, to obtain valid and relevant information to empirically assess the organisational performance in the context of SEs, a 'perceived organisational performance' can be explored. According to Dess and Robinson (1984) perceived measures of performance can be a reasonable substitute for objective performance measurements. The concept of perceived measures of performance was also supported by other empirical studies discussed in Section 2.4.4.4 (Page 43), which were assessing the impact of KMC in organisations' outcomes (Gold *et al.*, 2001; Lee and Choi, 2003; Liang *et al.*, 2007; Zheng *et al.*, 2010; Mills and Smith, 2011; Susanty *et al.*, 2012).

3.3 Relationship between the key elements of the KMC-SE Conceptual Model

This phase of the conceptual development studies the interaction between the elements of the model, and indicates how they are linked to each other. According to Dubin (1976; 1978), these interactions defined how changes in one or more units of the theory influence the remaining units. Considering the three key elements described in the previous sections, two relationships can be described. The first relationship is between Organisational Capability and Process Capability, as components of the KMC. The second relationship is between these KMCs and Organisational Performance. Both relationships are described in the following sections.

3.3.1 Relationship between Organisational Capability and Process Capability

As was explained in Chapter 2 (Section 2.4.4 Page 40), a KMC refers to the ability to mobilise and deploy knowledge resources in combination with other organisational capabilities for enabling knowledge processes, thus distinguishing and providing a sustainable advantage, and enhancing organisational performance of SEs.

The function of these knowledge processes is not only related to obtaining the necessary information and knowledge, but is instrumental in maintaining this information and knowledge to support members' efforts to work more effectively (Fan *et al.*, 2009). Thus, these knowledge processes do not have any meaning separate from (Leonard-Barton, 1995):

- The people who carry them out and who bring to the activities a set of unique abilities, histories and personalities;
- The culture where the knowledge is embedded;
- The organisational structure that allows knowledge to move and be created; and
- The technology by which knowledge travels across the enterprise.

This emphasises the importance of an organisation combining knowledge processes with the companies' distinct individualities. Therefore, a relationship between Process Capability and Organisational Capability is defined in order to develop KMCs.

3.3.2 Relationship between KMCs and Organisational Performance

As was discussed in Chapter 2 (Section 2.4.2 Page 35), enterprises that can efficiently capture the knowledge embedded in their organisations and distribute it to their operations, productions and services, will have a competitive, cost and performance advantage over their competitors (Winter, 1987; Drucker, 1991; Kogut and Zander, 1992; Quinn, 1992; Skyrme and Amidon, 1993; McKern, 1996; Stewart, 1997; Sveiby, 1997; Ruggles, 1999; Trussler, 1999; Grover and Davenport, 2001). Moreover, knowledge could provide a sustainable advantage to organisations because it generates increasing returns and continuing advantages, in the way that knowledge assets increase with use (Davenport and Prusak, 1998). However, companies need to manage effectively this knowledge by integrating it with their strategy and mission, in order to obtain advantages from it.

Academics defending the Knowledge-Based View theory have identified and explained how the development of organisational capabilities can support the management of knowledge within organisations, thus, resulting in competitive, comparable and sustainable advantages for the company (Grant, 1996b; Spender, 1996; Sveiby, 2001) (See Section 2.4.2 Page 35). Thus, knowledge would become the primary source of competitive and sustainable advantage for a company, and KM would support the aggregation of resources into capabilities. These capabilities should be controlled by the organisation in order to improve efficiency and effectiveness (Barney, 1991). Consequently, as with any organisational resource, effective KM, through the development of capabilities, must contribute to key aspects of organisational performance (Gold *et al.*, 2001). This justifies the existence of a relationship between the element of the KMCs and Organisational Performance of SEs.

To support this relationship, some empirical studies in larger enterprises, described in Chapter 2 (Section 2.4.4.4 Page 43), have demonstrated, in some cases with significant validity and reliability, that organisations can enhance their organisational performance and effectiveness by managing integrally their knowledge and developing KMCs.

3.4 Delineate limitations and conditions

The limitations and conditions of a conceptual model are considered the boundaries and the domain over which the theory will apply (Dubin, 1976; Dubin, 1978). For this study, the boundary is SEs, which are described and explained in detail in Chapter 2 (Section 2.2.3

Page 18). The following discussion will describe the contextual dimensions that can affect the proposed conceptual model.

3.4.1 Contextual dimensions

Some academics have argued that KM programmes and KM problems are unique to a particular firm (Tsoukas, 1996; Birkinshaw, 2001; Durst and Edvardsson, 2012). This corresponds with earlier contingency theories that established the general importance of considering an enterprise environment context in relation to strategy or performance (Lawrence *et al.*, 1967; Golden, 1992). Despite this, few attempts to include particular organisational characteristics and contextual factors in KMC models were found in the studies reviewed in Chapter 2 (Section 2.4.4.4 Page 43). Some of these studies incorporated elements, such as, industry and firm size as mediating factors between KMCs and organisational performance (Liang *et al.*, 2007), knowledge sharing (Yang and Chen, 2007), competitiveness (Liu *et al.*, 2004) and financial performance (Dröge *et al.*, 2003). All four papers found enough evidence to support the inclusion of such elements into the KMC models, to ensure a more accurate implementation.

Taking this into account, and further to previous discussion in Chapter 2 about the particularities of SEs (Section 2.2.3.2 Page 20), it was considered crucial to evaluate the context in which SEs were operating and undertaking knowledge related activities. This will support the translation of the KMC-SE Conceptual Model into a more customised and relevant framework for diverse SEs.

A group of contextual dimensions will be studied in this research. These are:

- Size of the SE: It has been suggested that the larger the organisation, the more resources it tends to devote to organisational programmes, such as KM (Alvord *et al.*, 2004);
- Age of the SE: Similarly, the more mature the enterprise, it has been argued that the more aware it will be of KM issues and more favourable to the introduction of KM practices (Lettieri *et al.*, 2004);
- Impact of economic climate: It has been argued that the more uncertain, changing, unstable and unpredictable the environment, the more organisations have to rely on knowledge-based resources and capabilities (Miller and Shamsie, 1996).
- External support from SE networks, associations or other SEs: SEs that are active members of sectorial networks can access those sources of information and knowledge that would improve organisational performance (Bull and Crompton, 2006; Chell, 2007; Hutchinson and Quintas, 2008; Meyskens *et al.*, 2010a).

These contextual dimensions will be then assessed with the empirical exercise of this research, allowing for the understanding of, not only SEs' activities but also their external environment. This will permit this study to formulate specific strategies for KM in SEs.

3.5 Knowledge Management Capabilities in Social Enterprises (KMC-SE) Conceptual Model

A subsequent stage in the General Method of theory-building is combining and visually presenting the elements that integrate the model, and the proposed relationships among these elements. Thus, as a result of the extended discussions integrating previous literature in KM and SE regarding the key elements of the conceptual model, as well as each of their sub-elements (Sections 3.2), and the explanation and discussion of the relationships among these elements (Section 3.3), the conceptual model presented in **Figure 3.6** is developed. The objective of the conceptual model, which is called 'Knowledge Management Capabilities in Social Enterprises' (KMC-SE) is to define the elements that integrate KMCs and their relationship with Organisational Performance of SEs.

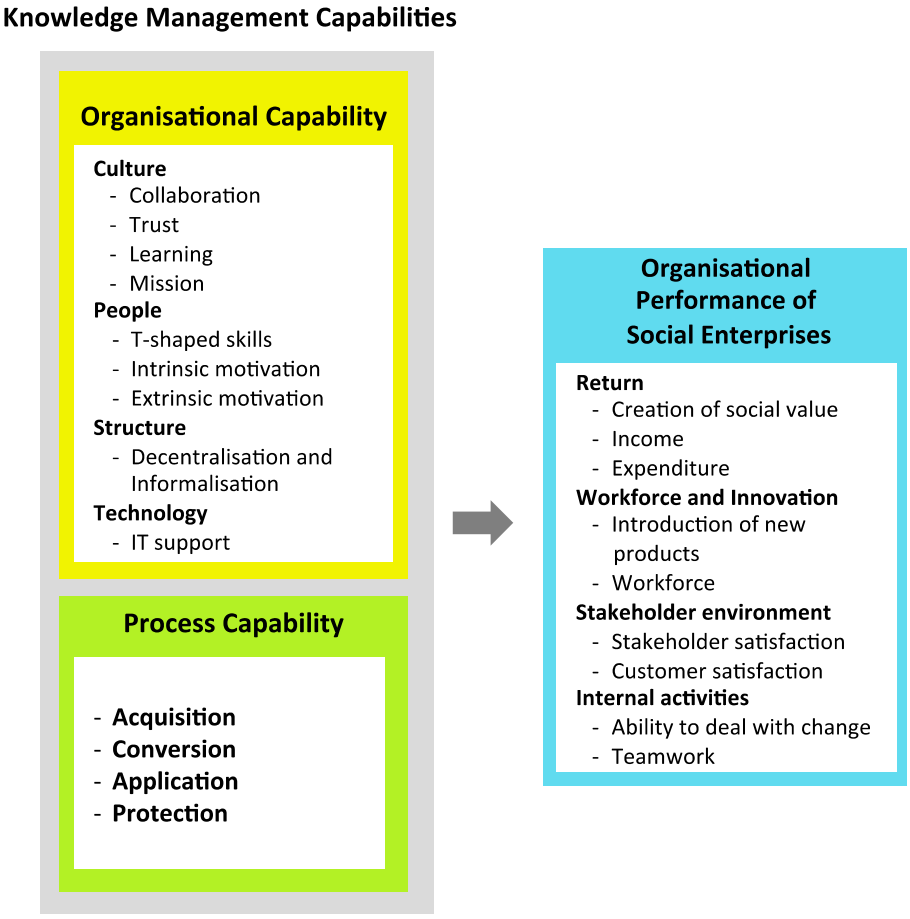


Figure 3.6 - Knowledge Management Capabilities in Social Enterprises (KMC-SE) Conceptual Model

As defined in Section 3.3.1 (Page 85), supported with the discussions in Section 2.4 (Page 31), the model presents two elements that together form Knowledge Management Capabilities: Organisational Capability and Process Capability. Each of these capabilities is composed of certain elements that were discussed independently in the previous sections (Section 3.2.1 and Section 3.2.2). For Organisational Capability, which represents the dimensions of KMCs, the elements are culture (Section 3.2.1.4 Page 65), people (Section 3.2.1.2 Page 55), structure (Section 3.2.1.3 Page 61) and technology (Section 3.2.1.1 Page 51). Process Capability, which embodies the knowledge activities that leverage the Organisational Capability, is integrated by: acquisition (Section 3.2.2.1 Page 71), conversion (Section 3.2.2.2 Page 74), application (Section 3.2.2.3 Page 76), and protection (Section 3.2.2.4 Page 78).

The discussion in Section 3.3.2 (Page 86), supported by the critical review of literature in Section 2.4 (Page 31), proposed that Knowledge Management Capabilities can improve Organisational Performance of SEs. Thus, the KMC-SE Conceptual Model illustrates how both Organisational Capability and Process Capability, together forming the KMC, can influence the Organisational Performance of SEs. Because SEs present certain particularities in their organisational performance associated with their idiosyncratic characteristics, as discussed in Section 3.2.3 (Page 80), the following elements are included in the Organisational Performance of SEs: Return (creation of social/environmental value, income and expenditure), Workforce and Innovation, Customer and stakeholder environment, and Internal activities (teamwork and ability to deal with change).

3.6 Operationalisation

This stage refers to the translation of the concepts in the theory into elements that can be confirmed in practice. This includes the definition of constructs and indicators of each element of the conceptual model, as well as the creation of hypotheses of the theory (Lynham, 2002). These hypotheses would establish the link between the empirical reality and the conceptual model. These are predictive statements that follow logically from the previous stages of the theory building method (Dubin, 1978; Chermack, 2005).

3.6.1 Constructs of the key elements of the KMC-SE Conceptual Model

Key elements of the conceptual model, such as structure and culture are theoretical concepts that cannot be observed directly. Therefore, it is required to define the latent variables in terms of behaviours believed to represent them. These behaviours have been explained previously in Section 3.2 (Page 50) based on KM and SE literature. The assessment of the behaviour constitutes the direct measurement of an observed variable (Byrne, 2010).

The adoption of these measurable indicators improves and assesses the validity and

consistency of the conceptual model and its further outcomes. This is because they represent more effectively the theoretical concepts by using multiple measures to reduce the measurement error of that concept and improve the statistical estimation (Hair *et al.*, 2010). Additionally, a multiple-item approach is recommended when studying complex organisational phenomena, such as, knowledge capabilities (Gold *et al.*, 2001). These constructs and their elements are defined in **Table 3.12**. The individual items assessed in each construct will be specified in the questionnaire developed in Section 4.3.1.2 (Page 108).

Table 3.12 – Constructs of key elements of KMC-SE Conceptual Model

Key Element	Factor	Construct	Explanation
Organisational Capability	Culture	Collaboration	Degree to which people in a group actively help one another in their work
		Trust	Degree of reciprocal faith in others' intentions, behaviours, and skills toward organisational goals
		Learning	Degree of opportunity, variety, satisfaction, and encouragement for learning and development
		Mission	Degree to which people share the definition or the organisation's purpose
	Structure	Centralisation	Level at which most decision making occurs
		Formalisation	Amount of formal rules, policies and procedures within the SE
	People	T-shaped skills	Degree of understanding one's and others' task areas
		Extrinsic motivation - Rewards	Degree to which one believes that one can have extrinsic incentives due to one's knowledge sharing
		Extrinsic motivation - Reciprocity	Degree to which one believes one can improve mutual relationship with others through one's knowledge sharing
		Intrinsic motivation - Self-efficacy	Degree to which one believes that one can improve the organisation's performance through one's knowledge sharing
		Intrinsic motivation - Reputation	Degree to which one believes one can enhance one's status in one's social system through one's knowledge sharing
		Intrinsic motivation - Enjoyment in helping others	Degree to which one enjoy helping others and transferring one's knowledge
	Technology	IT support	Degree of IT support for collaborative work, for searching and accessing, for communication, and for information storing
Process Capability	Acquisition		Processes of developing new content and replacing existing content within the organisation's tacit and explicit knowledge base
	Conversion		Processes orientated towards making existing knowledge useful. Some of the processes that enable knowledge conversion are a firm's ability to organise, integrate, combine, structure, coordinate, replace or distribute knowledge
	Application		Processes orientated towards the actual use of the knowledge. Some of the process related to application of knowledge are storage, retrieval, application, contribution, and sharing
	Protection		Processes/activities/mechanisms designed to protect the knowledge within an organisation from illegal or inappropriate use or theft
Organisational Performance	Return	Creation of social-environmental value	Degree to which SE delivers social / environmental values
		Income	Degree to which SE generates income
		Expenditure	Degree to which SE manage expenditure
	Workforce and innovation	Introduction of new products	Degree to which SE innovate
		Workforce	Degree to which SE changes and grows based on number of employees
	Stakeholder environment	Stakeholder satisfaction	Degree to which SE improves stakeholder satisfaction
		Customer satisfaction	Degree to which SE improves customer satisfaction
	Internal activities	Ability to deal with change	Degree to which SE has rapid adaptation to unanticipated changes and coordinates efforts
		Teamwork	Degree to which SE has ability to coordinates efforts

3.6.2 Hypotheses of the KMC-SE Conceptual Model

Supported in the extended literature review and discussion of the elements of the KMC-SE Conceptual Model (see Section 3.2 Page 50 and Section 3.3 Page 85), as well as their relationships, the twenty-one hypotheses of the KMC-SE Conceptual Model are defined to establish the link between the empirical reality and the model. The hypotheses are described in **Table 3.13**. The table summarises the theoretical grounding and justification of each hypothesis.

The first three hypotheses assess the KMC, as displayed by Organisational Capability and Process Capability, and their relationship with the Organisational Performance of SEs. The other eighteen hypotheses are associated with each component of the key elements of the conceptual model, Organisational Capability, Process Capability and Organisational Performance.

Table 3.13 - Hypotheses associated to each component of the KMC-SE Conceptual Model

Factor	Element	Proposition	Hypothesis	Supportive literature
Knowledge Management Capabilities (KMCs)		KMC refers to the ability to mobilise and deploy knowledge resources in combination with other organisational capabilities for enabling knowledge processes, thus distinguishing and providing a sustainable advantage, and enhancing organisational performance of SEs.	**H1:** KMCs (both Organisational Capability and Process Capability) have a positive effect on the Organisational Performance (OP) of SEs	(Leonard-Barton, 1995; Gold *et al.*, 2001; Lee and Choi, 2003; Lee and Lee, 2007; Zaim *et al.*, 2007; Mills and Smith, 2011)
Organisational Capability (OC)		OC represents the dimension of KMCs, starting with the reservoir of knowledge embedded in people and technology systems, and followed by the management structures and the culture that support the growth of knowledge.	**H2:** Organisational Capability (OC) has a positive effect on the OP of SEs	(Leonard-Barton, 1995; Gold *et al.*, 2001; Lee and Choi, 2003; Chuang, 2004; Syed-Ikhsan and Rowland, 2004; Lee and Lee, 2007; Zaim *et al.*, 2007; Nguyen *et al.*, 2009; Zheng *et al.*, 2010; Mills and Smith, 2011; Bakar *et al.*, 2012; Susanty *et al.*, 2012)
Process Capability (PC)		PC represents the knowledge activities within the organisation that leverage the organisational capability. This capability should be present in order to store, transform and transport knowledge in an efficient manner throughout the organisation.	**H3:** Process Capability (PC) has a positive effect on the OP of SEs	(Leonard-Barton, 1995; Gold *et al.*, 2001; Lee and Choi, 2003; Liu *et al.*, 2004; Lee and Lee, 2007; Liang *et al.*, 2007; Lin *et al.*, 2007; Zaim *et al.*, 2007; Mills and Smith, 2011)
Organisational Capability (OC)				
People	T-shaped skills	Members with T-shaped skills integrate knowledge because can use two or more 'professional language', and see the word from different perspectives.	***H4:*** T-shaped skill has a positive effect on the OC of SEs	(Iansiti, 1993; Madhavan and Grover, 1998; Hansen and von Oetinger, 2001; Lee and Choi, 2003)
	Extrinsic motivation - Rewards	Reward system is useful for motivating employees to perform desired behaviours, such as sharing knowledge.	***H5:*** Extrinsic motivation has a positive effect on the OC of SEs	(Bartol and Srivastava, 2002; Bock and Kim, 2002; Bock *et al.*, 2005; Burgess, 2005; Cho *et al.*, 2007; Lin, 2007)
	Extrinsic motivation - Reciprocity	Reciprocity behaviour can provide a sense of mutual gratitude, ensuring on-going supportive knowledge sharing.		(Bock *et al.*, 2005; Burgess, 2005; Cho *et al.*, 2007; Lin, 2007)
	Intrinsic motivation - Self-efficacy	When members see themselves as providing value to their organisations trough their knowledge sharing, they developed a positive attitude and a self-motivated force to share knowledge.	***H6:*** Intrinsic motivation has a positive effect on the OC of SEs	(Bock and Kim, 2002; Bock *et al.*, 2005; Cho *et al.*, 2007; Lin, 2007)
	Intrinsic motivation - Reputation	If individuals believe they could make contributions to the organisation's performance, and enhance their reputations in the company, they would be more likely to have a higher intention to share knowledge.		(Burgess, 2005; McLure Wasko and Faraj, 2005; Cho *et al.*, 2007)
	Intrinsic	Members may contribute knowledge if they perceive that engaging		(McLure Wasko and Faraj, 2005; Lin, 2007)

	motivation - Enjoyment in helping others	in intellectual activities to help others solving problems is interesting and because they enjoy helping others.		
Technology	IT support	Technology facilitates knowledge creation, embodiment, dissemination, integration, use and management inside and outside the SE. SEs use technology in a general way to manage their information, but these systems are not integrated or sufficiently developed to support decision-making, and operation and production management.	***H7:*** Technology has a positive effect on the OC of SEs ***H8:*** Technology does not have an effect on the OC of SEs	(McDermott, 1999; Roberts, 2000; Gold *et al.*, 2001; Lee and Al-Hawamdeh, 2002; Lee and Choi, 2003; Albino *et al.*, 2004; Sher and Lee, 2004)
Structure	Decentralisation and informalisation	High level of decentralisation has often the consequence of facilitating collaboration and sharing of knowledge across the organisation. High levels of informalisation extend members' decision-making discretions. Structure characteristics among SEs are diverse. However, patterns of participatory, flexible, adaptable, transparent and multi-stakeholder models were recognised as core elements in SE organisational style.	***H9:*** Structure (decentralisation and informalisation) has a positive effect on the OC of SEs	(Graham and Pizzo, 1996; Caruana *et al.*, 1998; Andrews and Kacmar, 2001; Gold *et al.*, 2001; Tsai, 2002; Yang and Chen, 2007; Zheng *et al.*, 2010; Liao *et al.*, 2011)
Culture	Collaboration	Collaboration increases knowledge sharing and help people to develop a sharer understanding of SE internal and external environment through supportive and reflective communication.	***H10:*** Collaboration has a positive effect on the OC of SEs	(De Long and Fahey, 2000; Gold *et al.*, 2001; Goh, 2002; Janz and Prasarnphanich, 2003; Lee and Choi, 2003; Alavi *et al.*, 2005)
	Trust	Trust facilitates open, substantive, and influential knowledge sharing.	***H11:*** Trust has a positive effect on the OC of SEs	(Lee and Choi, 2003)(De Long and Fahey, 2000; Gold *et al.*, 2001; Bell DeTienne *et al.*, 2004; Omerzel *et al.*, 2011)
	Learning	Learning facilitates the creation of new knowledge.	***H12:*** Learning has a positive effect on the OC of SEs	(Janz and Prasarnphanich, 2003; Lee and Choi, 2003; Alavi *et al.*, 2005)
	Mission	An articulated and communicated mission creates a sense of involvement and contribution among employees that encourage the growth of knowledge within the SE.	***H13:*** Mission has a positive effect on the OC of SEs	(Gold *et al.*, 2001; Zheng *et al.*, 2010)
Process Capability (PC)				
Acquisition process		This process opens new productive opportunities, enhances the firm's ability to exploit these opportunities, reduces uncertainty, and encourages process or product innovations.	***H14:*** Acquisition has a positive effect on the PC of SEs	(Pentland, 1995; Nonaka *et al.*, 2000b; Gold *et al.*, 2001; Yli-Renko *et al.*, 2001; Ju *et al.*, 2006)
Conversion process		This process results in the distribution of knowledge by turning	***H15:*** Conversion has a positive effect on	(Gold *et al.*, 2001; Lee and Suh, 2003) (Grant,

	isolated knowledge or experiences into knowledge so that the whole enterprise can use it. It can result in the integration of knowledge that may reside in different parts of the organisations, reducing redundancy and improving efficiency by eliminating excess work.	the PC of SEs	1996b; Büchel and Probst, 2000; Gold *et al.*, 2001).
Application process	This process allows the creation of new products/services, innovation, management under unexpected scenarios, improvement of efficiency, reduction of redundancy, and improvement of customer satisfaction.	***H16:*** Application has a positive effect on the PC of SEs	(Grant, 1996a; Wiig, 1999; Gupta *et al.*, 2000; Gold *et al.*, 2001; Sarin and McDermott, 2003; Gharakhani and Mousakhani, 2012)
Protection process	Knowledge, as a main source of competitive advantage, needs to be 'rare and inimitable', thus, it needs to be protected so knowledge will not lose these important qualities.	***H17:*** Protection has a positive effect on the PC of SEs	(Bloodgood and Salisbury, 2001; Gold *et al.*, 2001; Jordan and Lowe, 2004; Mills and Smith, 2011)
Organisational Performance (OP)			
Return	Because in SEs profits are created for stakeholders, a combination of social (creation of social/environmental value) and financial (income and expenditure) impact indicators can reflect the performance of SEs. Thus, SEs need to be financially viable so that they can continue operating to serve their social mission.	***H18:*** Return has a positive effect on the OP of SEs	(Paton, 2003; Lloréns Montes *et al.*, 2005; Somers, 2005; Bull and Crompton, 2006; Meadows and Pike, 2010)
Workforce and Innovation	By innovating, more specifically, by introducing new products, SEs can make external imitation more difficult, allowing them to sustain their advantages more effectively. Thus, innovation can reflect the performance of SEs.	***H19:*** Workforce and Innovation has a positive effect on the OP of SEs	
Stakeholder environment	Since SEs are a response for a greater community and employee involvement in interventions to social problems, stakeholders' and customers' satisfaction reflects the performance of SEs.	***H20:*** Stakeholder environment has a positive effect on the OP of SEs	
Internal activities	By having teamwork cohesion, the performance is collective, the synergy is positive, the skills are complementary and there is individual and mutual responsibility. Consequently, levels of teamwork reflect the performance of SEs. In the context of SEs that is characterised by the dynamism of the competition and the markets, a proactive fit provides greater immunity to environmental changes, since this type of organisation constantly keeps in pace with the change and, frequently, brings about that change. Thus, the SE's ability to deal with change can reflect the performance of the SE.	***H21:*** Internal activities has a positive effect on the OP of SEs	

3.7 Conclusions of Chapter 3

This Chapter has presented the KMC-SE Conceptual Model based on the KBV theory. The conceptual model explores the development of Knowledge Management Capabilities and their impact on Organisational Performance in SEs. It was argued that the relevance and applicability of the model to the empirical investigation rests on the model's assumption that an organisation, independently from size, sector or strategic objectives, can improve its performance by developing KMCs.

The 'General method of theory-building research in applied disciplines' proposed by Lynham (2002) was followed to guide the development of the KMC-SE Conceptual Model because of its appropriateness in facilitating both inductive and deductive research. The first and second stages were established in this chapter: the conceptual development and the operationalisation of the model.

In the conceptual development stage, the key elements of the conceptual model were described based on the KBV theory and previous models for KMCs development (Leonard-Barton, 1995; Gold *et al.*, 2001; Lee and Choi, 2003). Two capabilities were identified that together integrate a KMC: (a) Organisational Capability (OC), which is the organisational mechanisms for fostering knowledge consistently and increasing the efficiency of knowledge processes; and (b) Process Capability (PC), which is the knowledge activities within the organisation that leverage the organisational capability. By reviewing the idiosyncratic characteristics of the main domain of the conceptual model, SEs, as well as previous evidence on KM literature, organisational elements and knowledge activities were described to create the KMCs. Culture, people, structure and technology were outlined as the components of OC, and acquisition, conversion, application and protection as the components of PC.

Lastly, in the second stage of the 'General method', the chapter has de-contextualised the ideas, constructs and relationships of the key elements of the conceptual model, in terms of those of the KBV theory. In doing so, the operationalisation of the constructs and description of the hypotheses associated with the KMC-SE Conceptual Model were outlined. The following chapter describes the methodology employed to examine empirically the proposed model, which is analysed and discussed in Chapter 5 and 6.

Chapter 4

Methodology

The previous chapters discussed the research aim and objectives, the theoretical bases and the KMC-SE Conceptual Model developed for this research. The purpose of this chapter is to link the proposed study to the research strategy implemented in this study and explain the researcher's motives and justifications that guided these decisions. The reasons for selecting a specific research approach are supported by the research aim and indicated by the literature review presented in the previous chapters.

Section 4.1 provides the rationale for the philosophical positions assumed in this research, which are grounded in a critical realism approach. Section 4.2 validates mixed method research as the appropriate approach to conduct this empirical enquiry. Lastly, Section 4.3 presents the research design followed in this study, that is, sequential explanatory, with particular attention being paid to the two phases of the design. Its sub-sections discuss the different methods for data collection and data analysis conducted in each phase of the research, as well as the methodological rigour.

4.1 Research paradigm: Epistemology, ontology and methodology of knowledge

The philosophical position determines how observations and reasoning are related to each other, guide the way in which the researcher approaches and understands the object of study, and helps to clarify the research design (Blumberg *et al.*, 2008). This philosophical position is associated with what Kuhn (1962) defined as 'paradigms', which are models or frameworks for observation and understanding that shape what we see and how we understand it. Paradigms are considered the ontological, epistemological and methodological premises for research. Ontology refers to what we think reality looks like and how we view the world. Epistemology explores what represents knowledge or evidence of the social reality that is being investigated and what is counted as evidence. Lastly, methodology refers to how we get knowledge about the world (Mason, 2002; Hennink *et al.*, 2011). In other words, paradigm differences influence how it is known, the interpretation of reality, and the values and methodology in research. Paradigms will influence the questions that researchers will pose and the methods they employ to answer them (Morgan, 2007; Doyle *et al.*, 2009).

Two major research philosophies have been identified in the Western scientific tradition as appropriate for social sciences research, namely **Positivist** (post-positivist) and **Interpretivist** (social constructivist) (Johnson and Duberley, 2000; Reed, 2005; Blumberg *et al.*, 2008; Creswell, 2009; Bryman and Bell, 2011). The first refers to a deterministic philosophy in which causes probably determine effects or outcomes. Thus, positivists identify and assess the causes that influence outcomes. They observe and measure the objective reality that exists 'out there' in the world (Creswell, 2009). This paradigm is based on the philosophy that preconceptions need to be set aside in order to identify *objective* facts based on empirical observations (McEvoy and Richards, 2006). Positivist philosophies emphasise the use of sampling techniques, the measurement of outcomes and the development of causal models with predictive power (Myers and Avison, 2002).

The interpretivist, on the other hand, develops *subjective* meanings of their experiences, placing a greater emphasis on the way in which the world is socially constructed and understood, looking for the complexity of views rather than narrowing meanings into a few categories or variables, and relying mainly on the participant's view of the situation being studied (Blaskie, 1993; Creswell, 2009). Therefore, interpretive research attempts to provide an understanding of the context of research and the process whereby the phenomenon under study influences and is influenced by the context (Walsham, 1995).

A philosophical perspective that offers a radical alternative to the established paradigms of positivism and interpretivism is **Critical Realism** (Bhaskar, 1989; Archer *et al.*, 1998; Sayer,

2000; Fleetwood and Ackroyd, 2004; Reed, 2005). Critical realism has been recognised as an alternative both to naïve realism and to radical constructivist views that deny the existence of any reality apart from our constructions (Maxwell and Mittapalli, 2010). Therefore, as Creswell and Plano Clark (2011, p45) defined, critical realism has an ontological realism where '*there is a real world that exists independently of our perceptions, theories, and constructions*', while accepting a form of epistemological constructivism where 'our *understanding of this world is inevitably a construction from our own perspectives and standpoint'*. This philosophical position recognises the reality of the natural order and the events of the social world by assuming that the only way to understand the social world is by identifying the structures at work that generate those events (Bhaskar, 1989; Archer *et al.*, 1998; Mingers, 2000; Danermark, 2002). Thus, critical realism wants to get 'beneath the surface' to understand and explain why things are as they are, and to hypothesise the structures and mechanisms that shape observable events (Mingers, 2000). A critical realism perspective can provide a framework to understand better the relationship between an individuals' perspectives and their actual situations, treating both as real phenomena that causally interact with one another (Maxwell and Mittapalli, 2010).

Critical realism distinguishes three different models of reality: the empirical, the actual and the real (Bhaskar, 1989; Archer *et al.*, 1998; Sayer, 2000; Danermark, 2002). The empirical includes those aspects of reality that can be experienced either directly or indirectly; the actual consists of those aspects of reality that occur, but may not necessarily be experienced; and the real contains mechanisms, structures, and experiences that generate phenomena and have enduring properties. These mechanisms and structures provide an instance for actual events, which leave empirical traces that can be observed or otherwise experienced (Johnston and Smith, 2010). These different models of reality imply that researchers should not reduce all events to only those that are observed, and should not reduce continuing causal mechanisms to events (Mingers *et al.*, 2013). Consequently, for critical realists, the main purpose of research is not to identify generalisable laws, that is positivism, or to identify the experience or beliefs of social actors, that is interpretivism, but it is to develop deeper levels of explanation and understanding (Fleetwood, 2005; McEvoy and Richards, 2006; Maxwell and Mittapalli, 2010; Zachariadis *et al.*, 2013).

Based on the above discussion and explanations of the different philosophical positions, the justifications for adopting a **critical realism** position for this research are as follows:

- The general purpose of this research, described in Chapter 1, emphasises the investigation of organisational elements and knowledge activities that develop KMCs in SEs and improve their performance. KM literature proposed theoretical

explanations and certain theoretical categories for this development, which can permit the possible validation of these in the context of SEs. However, both organisational conditions and knowledge activities are socially constructed, based upon context-specific processes emerging from previous experiences and current events of SEs. Thus, to get a deeper level of explanation and understanding of these issues, this research assumes a critical realism research paradigm. This is because it distinguishes between the theory of KMCs development and the generative mechanism to which this theory refers as causes of the events that can be observed in the particular circumstances of SEs. As McEvoy and Richards (2006, p69) stressed:

> *'Our knowledge of the world is always mediated by the discourses available to us, but we can get empirical feedback from those aspects of the world that are accessible.';*

- Critical realism stimulates 'retroductive reasoning' (Bhaskar, 1989; Mingers, 2004b; Maxwell and Mittapalli, 2010). This is a process that involves the construction of hypothetical models as a way of uncovering the real structure, context, and mechanism that are presumed to produce empirical phenomena (Bhaskar, 1989). This reasoning also requires the researcher to be explicit about what is being done during the process, leading to the development of a conceptual model that explains why 'gatekeeping' decisions tended to emerge in the way they did (Reed, 2005; McEvoy and Richards, 2006; Mingers *et al.*, 2013; Zachariadis *et al.*, 2013). Therefore, by following a critical realism research paradigm, the researcher can move between the knowledge of the empirical phenomena, namely, KMCs development in SEs, as expressed through events, to the creation of explanations described in the proposed KMC-SE Model; and
- Critical realism identifies generative mechanisms, such as enablers and barriers that can offer the possibility of generating changes capable of transforming the *status quo* of the organisation (Mingers, 2004a). These enablers and barriers are part of the organisational elements and knowledge activities that this research will identify.

4.2 Research strategy

The next step in defining the methodology for this study is determining the research strategy, that is the general orientation for the conduct of the research. This strategy is based on the philosophical positions and the research purpose of the study. Although the distinction among different strategies is ambiguous (Bryman and Bell, 2007), there are three main strategies on business research: qualitative, quantitative and mixed methods (Creswell, 2009). This division reflects the traditional split between the positivist and anti-positivist epistemological

perspectives (quantitative and qualitative), and the combination of both strategies following a pragmatic and critical realism perspective.

Quantitative research emphasises the use of measurement to describe objects and relationships under study and seeks the quantification of a research problem (Neuman, 2009). Furthermore, quantitative enquiry is supposed to be within a value-free and time and context independent framework. In contrast, qualitative research seeks to understand or explain behaviour and beliefs, to identify processes, and to understand the context of people's experiences. The differences between qualitative and quantitative strategies have presented themselves as two opposite positions that are difficult to converge in one single strategy (Hennink *et al.*, 2011).

However, as Creswell (2009) asserted, qualitative and quantitative approaches should not be viewed as polar opposites or dichotomies, instead, they represent different ends on a continuum. Drawing upon this, a mixed method strategy was proposed that combines or associates both qualitative and quantitative analysis (Leech and Onwuegbuzie, 2009; Tashakkori and Teddlie, 2010b; Creswell and Plano Clark, 2011). Even though this strategy has received significant attention by researchers in social science and business, there are still some discussions regarding its exact definition (Tashakkori and Teddlie, 2010b). Instead of developing a complex definition of mixed methods strategy, Creswell and Plano Clark (2011, p5) proposed the following set of characteristics of a mixed methods researcher:

- Collects and analyses persuasively and rigorously both qualitative and quantitative data;
- Mixes the two forms of data concurrently by combining, sequentially or embedding;
- Gives priority to one or to both forms of data;
- Uses these procedures in a single study or in multiple phases or a program of study;
- Frames these procedures within philosophical positions; and
- Combines the procedures into specific research designs that direct the plan for conducting the study.

The philosophical assumptions of mixed research strategy acknowledge the realities discussed in qualitative and in quantitative, and reject singular reductionism. Therefore, this strategy has the principle of taking seriously multiple types of realities, concurrently, while attempting to interconnect the subjective, inter-subjective and objective parts of the world (Johnson and Gray, 2010b).

Based on the above discussion, the justifications for adopting a **mixed method strategy** in this research are:

- As indicated at the beginning of this section, the selection of research strategy is defined by both the philosophical position and the nature of the research problem. Although critical realism does not automatically favour any research method over any other (Bhaskar, 1989; Mingers, 2000; Sayer, 2000; Reed, 2005; Modell, 2009; Zachariadis *et al.*, 2013), the assumptions embedded in this approach, as presented in the previous section (Section 4.1 , Page 98), pose certain restrictions when deciding on only one method, or integrating qualitative and quantitative methods (Mingers, 2004b; McEvoy and Richards, 2006; Mingers *et al.*, 2013; Venkatesh *et al.*, 2013; Zachariadis *et al.*, 2013). This is because the view of reality associated with critical realism demands that, apart from the ensemble of structures, it is also necessary to identify the conditions in which generative mechanism are experienced (Zachariadis *et al.*, 2013). Moreover, as Venkatesh *et al.* (2013, p37) accepted:

  > *'Critical realism is an ideal paradigm for mixed methods research because it accepts the existence of different types of objects of knowledge—namely, physical, social, and conceptual—that have different ontological and epistemological characteristics and meaning. Therefore, it allows a combination of employing different research methods in a research inquiry to develop multifaceted insights on different objects of research that have different characteristics and meaning.'*

  Taking this into consideration, and to support the achievement of the research aim, a mixed methods strategy is followed. Here, the strength of a quantitative method is permitting to test out the KMC-SE Conceptual Model developed in Chapter 3, providing reliable descriptions and identifying patterns in the development of KMCs in SEs. Moreover, it can help to tease out new and unexpected causal relationships (Mingers, 2004b). The strength of a qualitative method is to help to illuminate complex concepts proposed in the KMC-SE Conceptual Model, and possible relationships and explanations that are unlikely to be captured by predetermined response categories, or standardised quantitative measures (Venkatesh *et al.*, 2013). As McEvoy and Richards (2006, p72) recognised:

  > *'Quantitative and qualitative methods can be employed to reveal different facets of the same reality and also to examine reality from different perspectives.';*

- A mixed methods strategy permits the corroboration of both qualitative and quantitative findings, supporting a more robust conclusion and stronger inferences than either source of data could support alone (Teddlie and Tashakkori, 2009; Venkatesh *et al.*, 2013). Hence, it provides complementary insights into the same empirical phenomenon with the aim of enhancing the validity of representations, and leveraging the complementary strengths and non-overlapping weaknesses of qualitative and quantitative methods (Modell, 2009; Johnson and Gray, 2010a; Venkatesh *et al.*, 2013); and

- Based on the typology of the reasons for mixed methods proposed by Bryman (2006), this research requires mixed methods for completeness, explanation and context. The first reason refers to the necessity of bringing together a more comprehensive account of the context of SEs with the KM conceptual elements identified in the literature. The second reason refers to the situation where one method is used to help to explain findings generated by the other. For the purpose of this research, qualitative analysis helps to explain the results of the quantitative study. The third reason, context, is associated with the support of qualitative analysis in provide contextual understanding of quantitative findings.

4.3 Research design

Research designs are plans and procedures for research that extend the decision from broad assumptions to detailed methods of data collection and analysis (Creswell, 2009). Drawing upon the previous discussions, this research follows a mixed methods design. This is based on a quantitative assessment of conceptual elements, and a qualitative analysis to understand the results of the quantitative study in the context of SEs. In order to define a mixed methods design, various contributors have defined a group of key decisions to be taken (Leech and Onwuegbuzie, 2009; Creswell and Plano Clark, 2011). These decisions are presented and explained in **Table 4.1**.

Table 4.1 - Decision for mixed methods design

Element	Decision	Description	Explanation
Level of interaction (Creswell and Plano Clark, 2011)	Interactive	Direct interaction exists between the quantitative and qualitative strands of the study. Both results of quantitative and qualitative studies are mixed before the final interpretation	The quantitative study asses the theoretical assumptions and this results guide the data collection of the qualitative study
Relative priority (Leech and Onwuegbuzie, 2009; Creswell and Plano Clark, 2011)	Equal priority	Both qualitative and quantitative play an equally important role in addressing the research problem	Both the theoretical grounding assessment and its understanding in the SE context have equal importance for achieving the research's objectives
Timing (Leech and Onwuegbuzie, 2009; Creswell and Plano Clark, 2011)	Sequential	Research develops in two different phases	There is a first quantitative study phase and a second qualitative study phase
Procedures for mixing (Creswell and Plano Clark, 2011)	Mixing during data collection	Results of one phase are connected with the collection of data from the other phase	The qualitative study uses results from the quantitative study to shape the collection of data

Integrating the decisions made in **Table 4.1**, this research is undertaken in an interactive way between quantitative and qualitative studies, where both have the same importance in

achieving the research objectives, and quantitative results give the basis for collection of data in the qualitative study. These decisions define the research design, which can be framed in typology-based designs proposed in the mixed method literature (Nastasi, 2010). This provides a logic to guide the implementation of the research methods to ensure that the resulting design is rigorous, credible, and high quality (Creswell and Plano Clark, 2011). Creswell and Plano Clark (2011) proposed six prototypes of the major, mixed method designs. Taking into account the decisions made in **Table 4.1**, this research follows an sequential explanatory design, or 'qualitative follow-up approach' (Morgan, 1998; Onwuegbuzie and Combs, 2010). The design is illustrated in **Figure 4.1**.

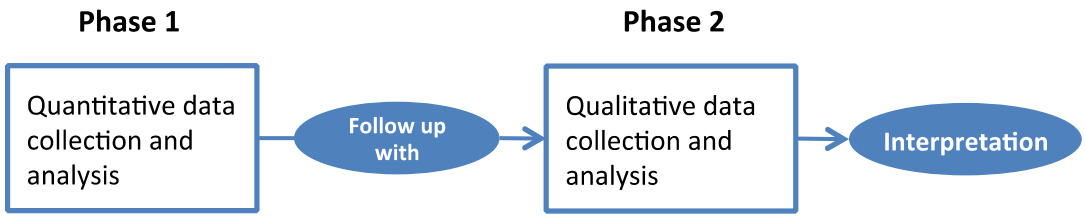


Figure 4.1 - Sequential explanatory research design based on Creswell and Plano Clark (2011)

As can be identified in **Figure 4.1**, the research design consists of two phases. During the first phase, a quantitative study is designed and implemented that includes collecting and analysing quantitative data. Subsequently, specific quantitative results are identified that call for additional explanation, and these results are used to guide the development of the qualitative study. In the second phase, the qualitative data are collected and results are interpreted to: (a) explain to what extent, and in what ways, they have added understanding to the quantitative results; and (b) what has been learned overall in response to the research's purpose (Creswell and Plano Clark, 2011).

Following some of the rules proposed by Ivankova *et al.* (2006) for drawing visual models for mixed methods designs, **Figure 4.2** illustrates the sequential explanatory design procedures used for this research.

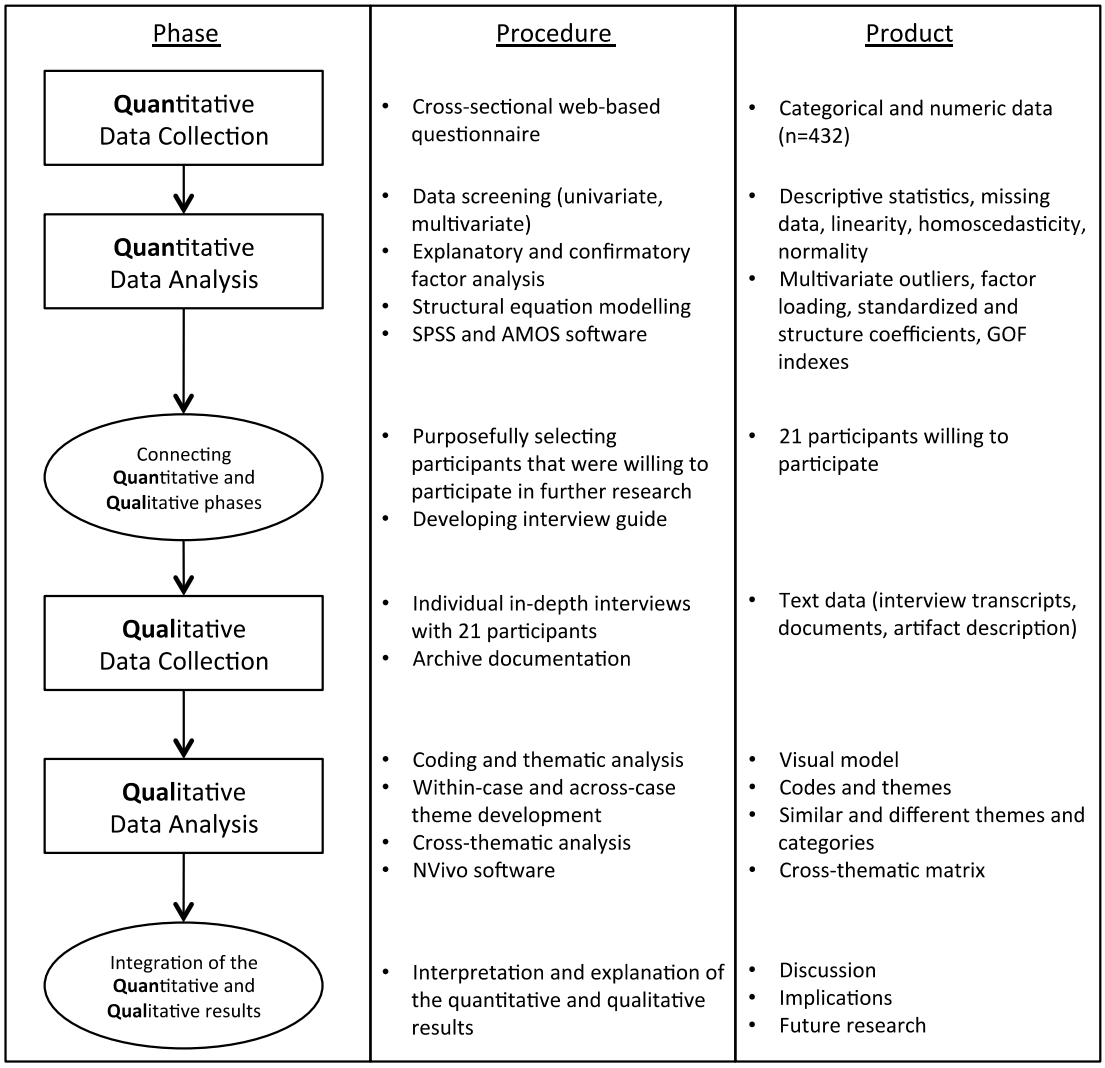


Figure 4.2 - Model for mixed methods Sequential Explanatory design procedures

Some strengths of this research design include the straightforwardness and opportunities for the exploration of the quantitative results in more detail (Creswell *et al.*, 2003). Moreover, this design is recommended when conducting a study for which a strong theoretical foundation already exists, KM, but the context of the research, Social Enterprises, is novel (Venkatesh *et al.*, 2013). Some limitations are the requirement of more time for implementing the two phases, and the fact that the characteristics of the second phase cannot be specified until the initial findings are obtained (Ivankova *et al.*, 2006).

4.3.1 Phase 1: Quantitative study

The objective of the quantitative phase in this research is to assess, test and validate the theoretical assumptions proposed in the KMC-SE Conceptual Model. This phase allows the collection of numerical data that will exhibit a the view of the relationship between theory and practice (Bryman and Bell, 2011).

4.3.1.1 Sampling

Sampling is the process of selecting a sample unit from a population of interest and its purpose is to address the study's research aim (Collins, 2010). The process of selecting a sampling design requires two distinctive yet interrelated decisions, decide on the strategy to select the participants, a) relevant population, b) sample frame, and c) sample scheme; and decide on the number of participants, d) sample size (Blumberg *et al.*, 2008).

i. Relevant population: A target population is the entire group of people, events, or objects to be studied (Cavana *et al.*, 2001). The population for this research is SEs in UK, according to the definition of SE described in Chapter 2 (Section 2.2.3.2 Page 20). Since SEs do not have a particular legal form associated with them, there is not an exact number of SEs defined by the government. However, a UK government report, 'Social Enterprise Barometer', developed by the Department for Business Innovation and Skill in February 2010 presented a number of approximately **60,000** SEs in UK based on the UK government criteria. The criteria are, a business that:
    - has mainly social and environmental aims;
    - does not pay more than 50% of trading profits or surpluses to owners or shareholders;
    - principally reinvests its surpluses in the business or the community;
    - generates more than 25% of income from trading goods and services; and
    - has less than 75% of its turnover derived from grants or donations.

ii. Sampling frame: A sampling frame is a list or a resource that contains and closely matches the elements of the defined population (Neuman, 2009). However, it is often difficult to get accurate listings of the theoretical population to be investigated (Trochim and Donnelly, 2006). In such cases, the list of the accessible population from which a sample can be drawn, constitutes the sampling frame (Trochim and Donnelly, 2006). Due to the difficulty in deciding which enterprises are really a SE, the sample frame for this research considered only the SEs that are self-defined, and are members of at least one of the listed UK SE networks. These networks provide a concentration of the study population who meet on a regular basis, share formal practices, and from which the frame sample can be obtained (Hennink *et al.*, 2011). The total population of the selected SE networks in the UK and their membership is presented in **Table 4.2**.

Table 4.2 - UK Social Enterprise networks and membership

Network	Members
Social Enterprise UK	545
Social Enterprise London	900
Social Enterprise Mark	448
Social Enterprise East England	195
Cumbria Social Enterprise Partnership	331
Community and Social Enterprise Partnership - Doncaster	113
East Sussex Social Enterprise network	35
Social Enterprise Lancashire Network	135
Together Works - social enterprise network for Greater Manchester	103
Milton Keynes Social Enterprise Network	24
Enterprise Solutions Northamptonshire	84
North East Social Enterprise Partnership	168
North Lancashire Social Enterprise Network	14
Social Enterprises Network in Merseyside	82
Rise for SE – South West England	102
West Lancashire Social Enterprise Hub	12
Social Enterprise West Midlands	56
York social enterprise network	12
CAN (Community Action Network)	359
TOTAL	**3718**
Duplicates	**455**
TOTAL (Sample frame)	**3,263**

However, during the development of the final dataset of SEs, it was identified that not all SEs cited in the directories available on the networks' websites have complete contact information, such as an email address. Since data collection is undertaken by web-based questionnaire, which is explained in the following section, email information was indispensable. Thus, the final number of SEs, which became the sample frame for this research, was **2,141**.

iii. Sampling scheme: after having decided which is the sample frame of the research, the next question is specifically how to select the individual units to be included, which is the sample scheme (Collins, 2010). For the purpose of the quantitative study, a probability **simple sampling** scheme is adopted to give every SE of the sample frame equal and independent chance of being chosen for the study. The respondents from these SEs have to meet the following eligibility criteria:

- Respondents' companies are self-defined SEs;
- Respondents must be an senior executive, that is, chief executive officer, chief operating officer, chief financial officer, president, or someone in charge of a principal business unit or function;
- Respondents are listed in the directory of members of the SE Networks presented in **Table 4.2**;

- Respondents are 18 years old or older;
- Respondents are able to read and write English;
- Respondents have been employed at their present companies for at least the past six months; and
- Respondents agree to participate in this study and complete the questionnaire fully.

iv. Sample size: the purpose of the quantitative study in this research is to assess theoretical assumptions about the influence of organisational elements and knowledge activities in the development of KMCs that improve performance of SE. Therefore, it is indispensable to have a significant sample that can be subjected appropriately to the variety of statistical techniques that are required to assess the KMC-SE Conceptual Model developed in Chapter 3. A minimum sample size recommendation pertaining to Structured Equation Modelling (SEM) is 15 respondents for each parameter estimated in the conceptual model (Hair *et al.*, 2010). Since the KMC-SE Conceptual Model is measuring 14 parameters, a minimum of **210** responses is required. This last value represents an approximate 10% (value obtained with 2,141 sample frame) of the sample frame. If the sample size is determined by the expected return rates of online questionnaires, Kwak and Radler (2002) suggested an approximate 11% of responses for questionnaires of around 20 questions. This represents over **235** responses expected. Both parameters are valid, but as Fowler (2009) defined, it can be seen that precision increases rather steadily up to sample sizes of 150 to 200, thus, there is only a modest gain for an increased sample size. Fowler (2009) also suggested that, in practice, researchers do not base their decision about sample size on a single estimate of a variable. Thus, survey researchers are not in a position to specify in advance a desired level of precision. The decision regarding the actual sample size for this research is convenience generated rather than having been calculated. It will have about **200** and **250** participants, which is a significant sample for the purpose of the quantitative study.

4.3.1.2 Data collection method

The purpose of a data collection method is to gather information to address the questions and objectives being stated in the research (Creswell and Plano Clark, 2011). For the purpose of this research and the quantitative phase, a **survey** was used as the data collection method. A survey design '*provides a quantitative or numeric description of trends, attitudes, or opinions of a population by studying a sample of that population'* (Creswell, 2009, p145). This collection takes place at a single point in time in order to collect a body of quantifiable data in connection with two of more variables. This are then examined to detect patterns of association (Bryman and Bell, 2007). When deciding the type of survey to undertake, the

researcher has the option of using an already developed survey questionnaire, or a special-purpose survey (Blumberg *et al.*, 2008; Saunders *et al.*, 2009; Bryman and Bell, 2011). Although a special-purpose survey is considered more expensive and extensive due to the resources required to create it (Fowler, 2009), this research employed a **special-purpose survey**. This is because no previous empirical research associated with KM practices on SEs had been identified by the time the data were collected (see Chapter 2 Section 2.2.3.3 Page 26), thus requiring the creation of a new questionnaire specifically designed for SEs. Other advantages of employing special-purpose surveys are: (a) the confidence that the sample is not a biased one; (b) standardised measurements are consistent across all respondents; and (c) the analysis needs are met (Fowler, 2009).

The purpose of this survey is assessing conceptual assumptions defined in the KMC-SE Conceptual Model developed in Chapter 3. As was explained in Section 4.3.1.1 (Page 106), the survey is focused on SEs in UK and the survey is cross-sectional and collected at one point in time.

The type of data collection form is a **web-based survey questionnaire** and was selected for the following reasons:

- Due to the geographical dispersion of the sample frame, an online survey guarantees that the questions will get to the respondents. Moreover, because of the work load on Social Entrepreneurs, the online survey can be answered at any time that is convenient for them;
- The underlying purpose of the research is to recognise organisational elements and knowledge activities that might improve the performance of SEs. Social Entrepreneurs might be particularity interested in improving the performance of their enterprises. Thus, this possible interest in the research problem might intrinsically motivate them to respond to online surveys (Blumberg *et al.*, 2008; Fowler, 2009);
- This research is developed in two phases, hence time for sending questionnaires and getting responses in phase one is critical for the success of the whole design. Online surveys have the potential for a high response speed (Blumberg *et al.*, 2008; Fowler, 2009); and
- Because the questionnaire seeks organisational elements of the SE, it is important that the respondent can have time to provide thoughtful answers, checking records, or consulting with others.

However, there are some shortcomings in survey design. The first is that quality and quantity of information obtained depends heavily on the ability and willingness of participants to cooperate. Even if individuals want to participate, they may not possess the knowledge that it

is required to be collected, or they may also interpret a question or concept in a way that differs from the original intention (Blumberg *et al.*, 2008). To minimise this effect, the survey was addressed to a job function, such as, chief executive, general manager or administrative manager, rather than a named person.

Questionnaire design

To develop the questionnaire, questions used in previous studies can be adopted or adapted, or new ones may be created (Creswell, 2009). In this research, some questions used by other researchers were adapted (Denison and Mishra, 1995; Gold *et al.*, 2001; Bock and Kim, 2002; Lee and Choi, 2003; Burgess, 2005; Somers, 2005; Chen and Huang, 2007; Chin-Loy and Mujtaba, 2007; Lin, 2007), and also other questions were developed to permit the assessment of the KMC-SE Conceptual Model. It was important to clarify initially the research objective and then to define the target population and sampling frame (Bryman and Bell, 2007).

As defined in Section 4.3.1.1 (Page 106), the target population for the questionnaire survey consisted of self-defined SEs that are members of recognised networks in UK. The research objectives, the literature review, the KMC-SE Conceptual Model, and background knowledge of the SE sector guided the thought process in developing draft questions. These were then evaluated from a respondent's perspective and sections in the questionnaire were designed to bring them as close as possible to being: short, clear, simple, technically accurate, bias free and at an appropriate reading level to avoid ambiguity (Bryman and Bell, 2007; Fowler, 2009). Recommendations on how to design the questionnaire were taken into account (Bradburn *et al.*, 1979; Foddy and Foddy, 1994; Creswell, 2009; Fowler, 2009), such as, being consistent in style, starting with a brief description of the meaning of main concepts, and providing instructions on how to answer each section of the questionnaire. The survey was mounted in SurveyMonkey, which is a web site that offers online survey services with reliable confidentiality and anonymity for respondents (Buchanan and Hvizdak, 2009).

After the initial development of the questionnaire, which reflects the main key concepts of the KMC-SE Conceptual Model, and prior to the pilot test, a draft was pre-tested informally by a group of academics with experience in KM and SE research. They provided some constructive suggestions regarding the structure, wording and presentation of the draft questionnaire. Taking their comments into consideration a second draft of the questionnaire was produced.

Pilot testing

Pilot testing is important to determine content validity of an instrument and to improve questions, format, and scales (Creswell, 2009). A pilot test was designed and executed using a

SurveyMonkey link sent to ten SE researchers and practitioners from the network Social Enterprise London. They responded by email and face-to-face conversations with minimal suggestions on wording and presentation. The main comments were:

- To keep the distribution of matrix statements to a maximum of two per page in Survey Monkey; and
- To change the word 'employees' included in the questions for the word 'members'. This was justified by the collaborative environment experienced in the SEs, where people do not consider themselves as employees of the SE, but members.

These two suggestions were taking into consideration when designing the final version of the survey questionnaire.

Structure of the final questionnaire

The recommendation of the pre-testing stages, including the pilot test and experts' validation, were integrated in the final version of the questionnaire. This is presented in Appendix C (Page 294), as offered in SurveyMonkey. The questionnaire contained four sections, which are described in **Table 4.3**.

Table 4.3 - Questionnaire sections description

Section	Objective	Constructs assess	Num. ques.	Type of variables and questions
Section A	Identify the demographic characteristics of the sample. Identify the contextual conditions of the SE.	Contextual dimensions: Enterprise characteristics Respondent characteristics Existence of KM program Network participation	20	Categorical - Nominal Unique choice Multiple choice Open
Section B	Assess the elements of the Organisational Capability of the KMC-SE Conceptual Model	Organisational conditions: Culture Structure People Technology	29	Scale Five point Likert-type scale
Section C	Assess the elements of the Process Capability of the KMC-SE Conceptual Model	Knowledge activities: Acquisition Conversion Application Protection	15	Scale Five point Likert-type scale
Section D	Assess the elements of the Organisational Performance of the KMC-SE Conceptual Model	Organisational performance	9	Scale Five point Likert-type scale

Questions in sections B, C and D were measured with Likert-type scales that provide the advantage of standardising and quantifying relative effects (Saunders *et al.*, 2009; Bryman and

Bell, 2011). In order to decide the total number of points on the Likert-type scale, it is argued that more points give the respondent a better selection from which to make a choice (Blumberg *et al.*, 2008). However, it is also argued that this greater choice may confuse the respondent, and not necessarily produce richer data (Bryman and Bell, 2011). For this study, it was decided that a neutral position was available from within the five point scales offered.

Data collection process

The final version of the questionnaire was entered on SurveyMonkey and a link was created to access the survey. The survey invitation email, including the link, was designed following recommendations from survey practitioners (SPSS, 2012). This was sent to the 2,141 email contacts of senior members of SEs in UK on the 31 January 2012. A reminder was sent on the 28 February 2012 and the survey link was closed on the 30 March 2012, as stated in the email invitation.

A total of **432** responses were collected from senior members of SEs around the UK. The total number of responses exceeded the threshold suggested for this study of 250 responses. Therefore, the overall response rate of **20.2%** that was achieved is well within reasonable expectations of a web survey, and more than required to accomplish the purpose of the quantitative study. The responses were downloaded from SurveyMonkey and prepared for export to SPSS software and consequently AMOS software.

4.3.1.3 Data analysis method

Once the responses were obtained from the online questionnaire, these data were processed and analysed. In order to achieve the objective of the quantitative study, which is testing and assessing the KMC-SE Conceptual Model, a number of statistical techniques were utilised in the data analysis. These are presented and justified as follows:

Descriptive statistics

Frequency distribution tables were employed to categorise the respondent and SEs based on a number of criteria, such as, respondent's title position, respondent's previous experience, SE legal form, SE sector and number of employees.

Missing data and outliers

Missing data were expected to be minimal for most variables. Where missing values occur, the randomness of the data were diagnosed and values were imputed using the multiple imputation strategy proposed by Hair *et al.* (2010). Outlier analyses were undertaken prior to

all major analyses. The analyses were both non-model based and model based using the Mahalanovis D2 measure.

Explanatory and confirmatory factor analysis

Factor analysis examines the structure of the correlations among a large number of variables by defining sets of variables that are highly interrelated, known as factors (Hair *et al.*, 2010). Exploratory Factor Analysis (EFA) is used when the link between sets of observed and latent variables is unknown or uncertain. Latent variables are unobservable variables in the social world that cannot be observed directly, thus are represented by multiple observed variables, such as, organisational culture and structure (Hair *et al.*, 2010). The analysis proceeds in an exploratory mode to determine how and to what extent the observed variables are linked to their underlying factors.

In contrast, Confirmatory Factor Analysis (CFA) is used when there is some knowledge of the underlying latent variable structure. These two methodologies of analysis were used, initially, to confirm the extent to which, the observed variables, drawing from literature and previous empirical research, were linked to their underlying latent factors, or variables of the KMC-SE Conceptual Model.

Because CFA model focuses only on the link between factors and their measured variables, within the framework of Structural Equation Modelling (SEM), it represents the measurement model (Gerbing and Hamilton, 1996). This model provides an appropriate means of assessing the efficacy of measurements among scale items and the consistency of a pre-specified structural equation model (Gold *et al.*, 2001; Byrne, 2010).

Structural Equation Modelling (SEM)

Structural Equation Modelling refers to a modelling framework popular in the social and behavioural sciences and is able to handle multi-equation models, multiple measures of concepts, and measurement error (Bollen and Noble, 2011). It has also been referred to in the literature as Analysis of Moment Structures, Covariance Structure Analysis, Analysis of Linear Structural Relationships (LISREL) and Path Analysis and Causal Modelling. This framework estimates a series of separate, but interdependent, multiple regression equations simultaneously, by specifying the structural model, and incorporating latent variables into the analysis.

The most used technique in social and behavioural sciences is the Covariance-based SEM (Bollen and Paxton, 1998; Little *et al.*, 2007; Byrne, 2010; Hair *et al.*, 2010; Blunch, 2013). However, an alternative SEM technique called Partial Least Squares (PLS) has also been

recommended when assessing multi-equation models with multiple measures of concepts (Wold, 1975). For this study, a Covariance-based SEM model was more appropriate to assess the conceptual model than PLC for the following reasons:

- PLC is recommended when the study is interested in making predictions from dependent variables, rather than explaining covariance, as is the case of Covariance-based SEM (Blunch, 2013). The statistical analysis of the KMC-SE Conceptual Model does not pretend to predict the dependent variable, Organisational Performance, but to explain covariance associated with this variable and the two independent variables; and
- PLC is recommended when the model has a majority of latent variables with formative indicators, this is, when the indicators form or define the latent variable (Byrne, 2010; Blunch, 2013). The indicators assessed in this study are reflexive, which means that they reflect the underlying latent variable. For example, the indicators AC2 'Sharing knowledge with business partners' is reflecting the acquisition process of the SE. For these reasons a covariance-based SEM model is appropriate to test the model because it works with reflective indicators.

SEM comprises both a measurement model and a structural model. The measurement model describes the links between the latent variables and their observed measures, and the structural model describes the links among the latent variables themselves. To validate how the empirical data collected from SE members in the UK fit the KMC-SE Conceptual Model, a variety of global fit indices and procedures are used, including indices of absolute fit, indices of relative fit, and indices of fit with a penalty function for lack of parsimony. These indices and procedures are described in detailed in Appendix D (Page 300).

Computer-based statistical analysis tools, SPSS and AMOS, were used to run the statistical techniques and analyse the data obtained from the respondents via SurveyMonkey. The information originated from the descriptive and multivariate statistical analysis of the data is presented in Chapter 5.

4.3.2 Phase 2: Qualitative study

In order to give depth and derive meaning to the quantitative results, and to broaden the view of the subjects, a qualitative element for the research was designed and undertaken. This study allowed the researcher to understand the deeper perspectives that can be captured through face-to-face interaction with key informants, and observation in the more normal setting of interview (Marshall and Rossman, 2011).

4.3.2.1 Sampling

Following the same process for sampling design already presented for the quantitative study, this phase was focused on the same population, which is SEs in UK. However, the sampling frame, sampling scheme and sample size are different due to the nature of a qualitative study and the research design.

i. Sampling frame: because this research follows an sequential explanatory design, the data collection for phase two depends on the results of data collection and data analysis of phase one. Thus, the sample frame for the qualitative study comprises the actual respondents of the survey in phase one, because they are the most appropriate to contribute to the qualitative data set (Creswell and Plano Clark, 2011).

ii. Sampling scheme: contrary to the quantitative study, the purpose of the qualitative study is not to generalise from the sample, but to develop an in-depth understanding of few people or cases. To obtain representative cases for further explanation of the quantitative results, this phase followed a convenience sampling approach. Respondents were chosen from the people identified in the previous phase that were conveniently available and willing to participate further in the study (Collins, 2010; Creswell and Plano Clark, 2011). A convenience sample is useful for explanatory research to obtain the range of views and develop typologies, but must not be used to make any claim to represent anything but the sample itself. This type of sample scheme is also named 'nested sample', which specifies that the sample participating in one phase represents a subset of the participants involved in the other phase (Collins, 2010).

iii. Sample size: for Sequential explanatory Designs, Creswell and Plano Clark (2011) recommend that qualitative data collection comes from a much smaller sample of the quantitative data collection, because the intent is not to merge or compare the data. The decisions about samples are usually a compromise between cost, time, accuracy, the nature of the research problem and the art of the possible (Bryman and Bell, 2011). Nonetheless, there is some guidance for specific sample size recommended for qualitative interviews. This guidance is presented in **Table 4.4**, suggesting a number of participants between 15 to 30 for grounded theory research and 6 to 20 for interviews-based methodology.

Table 4.4 - Minimum sample size recommended for interviews

Research design / method	Minimum Sample size suggestion	Author (s)
Grounded theory	**15 - 20** participants	(Creswell, 2005)
	20 - 30 participants	(Creswell and Plano Clark, 2011)
Interview	**6 - 12** participants	(Johnson and Christensen, 2009)
	12 participants	(Guest *et al.*, 2006)
	6 - 8 interviews for a homogeneous sample	(Kuzel, 1992)
	12 - 20 data sources 'when looking for disconfirming evidence or trying to achieve maximum variation.'	

Additionally, similar sample size figures were identified in seven, published works that implemented a Sequential Explanatory mixed methods research design. These are presented in **Table 4.5**.

Table 4.5 - Other Sequential Explanatory research design samples

Author	Quantitative sample	Qualitative sample
(Al-Mawali and Al-Shbiel, 2013)	98 Survey responses	7 Semi-structured interviews
(Kumpirarusk, 2012)	242 Survey responses	15 In-Depth Interview
(Mswaka, 2011)	102 Survey responses	18 Semi-structured interviews
(Wallace-Hulecki, 2011)	43 Survey responses	18 Semi-structured interviews
(Peng *et al.*, 2011)	42 Survey responses	25 Semi-structured interviews
(Hirst, 2010)	163 Survey responses	17 Semi-structured interviews
(MacDonald, 2010)	54 Survey responses	12 Semi-structured interviews
(Alfaadhel, 2010)	146 Survey responses	15 Semi-structured interviews
(West and Prendergast, 2009)	77 Survey responses	9 Interviews
(Ivankova *et al.*, 2006)	207 Survey responses	4 Unstructured interviews
(Hewett *et al.*, 2006)	207 Survey responses	12 Interviews
(Dellande *et al.*, 2004)	412 Survey responses (376 patients - 36 nurses)	17 Interviews (8 patients - 9 nurses)

Thus, based on both qualitative researchers' recommendations, and previous research employing Sequential Explanatory mixed methods research design, a recommended and significant sample for Phase 2 was judged to be between 10 and 20 interviews. These, however, are subject to data saturation, which is the criterion considered to determine the significance and representativeness of the sample size (Glaser and Strauss, 1967).

4.3.2.2 Data collection method

Various authors have presented taxonomies to classify qualitative methods (Bryman and Bell, 2007; Blumberg *et al.*, 2008; Creswell, 2009; Saunders *et al.*, 2009; Marshall and Rossman, 2011). A general taxonomy proposed by Blumberg *et al.* (2008) includes: in-depth interview, participant observation, films, projective techniques, case studies, ethnography, expert

interview, document analysis and proxemics. From these methods, the more common for business studies are the in-depth interview, participatory observation, case study and document analysis (Blumberg *et al.*, 2008). **Table 4.6** presents a comparison of these methods with the possible advantages and limitations of each method to support the purpose of this study.

Table 4.6 - Comparison of qualitative research methods

Data collection method	Primary strategy	Advantages	Limitation
In-depth interview	Capture the deep meaning of experience in the participant's own words	• Participants can provide historical and process-related information • Allows researcher control over the line of questioning • Allows detection and identification of the issues relevant to understanding the situation • Allows the determination of what the interviewee sees as relevant and important • Allows immediate follow-up and clarification • It may allow the researcher to obtain information about tacit and explicit practices for KM	• Provides indirect information filtered through the views of interviewees • Not all people are equally articulate and perceptive • Possible misinterpretation due to cultural differences • Depends on co-operation of individuals
Participatory observation	Take field notes on the behaviour and activities at the research site	• First-hand experience with participant • Record information as it occurs • Unusual aspects can be noticed	• Private data can be observed that researcher cannot report • Researcher may be seen as intrusive • Slow and expensive process • It may not be possible to identify explicit practices of KM
Case study	Study a contemporary phenomenon within this real-life context	• Allows a better understanding of a problem from multiple perspectives	• Findings are not generalisable to a population • Limits the findings to a small number of SEs
Document analysis	Collect private or public documents of the research	• Enables a researcher to obtain language and words of participants • Can be accessed at a time convenient to researcher • As written evidence, it saves time of transcribing	• Information can be protected to public access • Material may be incomplete or inaccurate • It may not reflect tacit practices of KM

Based on (Bryman and Bell, 2007; Blumberg *et al.*, 2008; Creswell, 2009; Marshall and Rossman, 2011)

Drawing upon the research aim of this study, the specific purpose of the qualitative phase and the parallel comparison presented in **Table 4.6**, **in-depth interviews** are used as the data collection method for Phase 2. This method allows the researcher to obtain valid and reliable data from participants that helps a deeper understanding of the quantitative findings. Therefore, the interview allows the researcher to learn more about the respondent's viewpoint regarding their current practices of KM and organisational behaviour within their SE.

In comparison with other suitable methods, such as case study, interviews permit the collection of more responses that represent a broad range of SEs.

A common typology related to the level of formality and structure of interviews is: structured interview, semi-structured interviews and unstructured interviews (Saunders *et al.*, 2009). Since the type of data expected to be collected in this phase is richer and more detailed, being based on the participant's perception, the first type of interview is not considered. The type of interview that provides more accurate data, but at the same time allows the researcher to address specific topics from the quantitative findings, is the **semi-structured interview**. This type of interview is also recommended when following a explanatory mixed methods fieldwork approach (Hennink *et al.*, 2011).

Semi-structured interviews usually start with specific questions but allow the interview to follow the participant's thoughts later on. It gives the respondent the possibility to turn the interview in different directions and to introduce new sub-topics that the researcher often has not thought about beforehand (Marshall and Rossman, 2011).

Interview guide design:

The main purpose of an interview guide is to increase the comparability of multiple qualitative interviews (Blumberg *et al.*, 2008). This is obtained by having an *'aide memoire'* to ensure that the same issues are addressed in every interview and not forgotten in some interviews. The sections of the interview guide are explained as follows:

- Introduction: Each interview is started by providing information about the purpose of the research, how the data will be used and the outcomes of the study. Participants are also informed why the recording is necessary, who would listen to the recording and then seek the participant's verbal permission to record the session (Hennink *et al.*, 2011). Participants were assured that research information will be collected, analysed and reported anonymously;
- Opening questions: Because each participant has already given their personal and organisational demographic information in the survey questionnaire, only general questions about the SE are asked, such as, main objectives and short organisational description. These questions provide some background on the interviewee allowing the researcher to begin the process of building rapport in the interview (Hennink *et al.*, 2011);
- Key queries: These are the central part of the interview and are, thus, essential to collect and discuss core information to answer the research aims of the second phase. They are intentionally placed in the central part of the interview guide to permit time for rapport to be established between the interviewer and the interviewee. The purpose is

understanding how current KM activities work within the interviewee's SEs. However, as was explained in Section 3.2.2 (Page 71) on Chapter 3, SEs do not necessarily used the word 'Knowledge Management' to indicate their activities to manage knowledge. Therefore, a more general query about their working practices, sources of ideas and types of knowledge was asked;

- Closing: To enquire about the interviewee's perception of the future of their SEs.

Appendix E (Page 301) presents the complete interview guide used in the second phase of this research, including the topic probes to each question. These topic probes come from the KMC-SE Conceptual Model and quantitative findings, and remind the interviewer to ask about these issues if they are not raised spontaneously by the interviewee. The interview followed the order in which the topics arise as the interview develops. Therefore, the interview guide is used as a checklist to ensure that the main topics have been covered, but not necessarily in the same order in all interviews. Additionally, the words in the guide are used as reference to the interviewer, but more colloquial language, or local phrases, were used during the interview that were easily understood and reflect the context of the interviewee.

Validity was assured by building rapport, trust and openness between interviewer and interviewee, giving the participant the confidence to express the way they perceive reality. Additionally, validity was kept by using questions that are drawn from the KMC-SE Conceptual Model and previous responses to the quantitative study (Arksey and Knight, 1999).

In order to make triangulation possible, thus providing stronger assessment of theory (Webb *et al.*, 1966) and, in addition, delivering credibility to the research findings (Bryman and Bell, 2011), **document analysis**, when available, was also performed.

Data collection process

Several pilot interviews were undertaken to identify colloquial phases relevant to the research topic and to confirm the relevance of the interview guide.

In order to get a representative number of interviews, an email was sent to over 100 respondents from the 'willing to participate further' sample offering them an opportunity to meet and explore their current experiences managing knowledge within their SEs. After four weeks, **21** participants had agreed to participate in the second phase of this research and were used as the convenience sample.

The size of the sample was comparable with the numbers suggested by qualitative researchers and previous Sequential Explanatory mixed methods research designs presented in Section 4.3.2.1 (Page 115).

Among the criteria considered to determine the significance and representativeness of the sample size was saturation (Glaser and Strauss, 1967). The researcher concluded that data saturation occurred within the first 15 interviews, when further interviews became effectively superfluous and participants were describing similar experiences managing their knowledge. The subsequent six interviews added a few, new, minor issues, but no significant elements to the main discussion.

Data saturation can be clearly demonstrated using the visualisation tool Tree Map offered by NVivo9 software. This tool allows the comparison of codes, which are presented and explained in the following section, by the number of references and citations they content. Tree maps of the first seven, fifteen and 21 interviews are presented in **Figure 4.3**, **Figure 4.4** and **Figure 4.5** respectively. These are Tree Maps of codes showing hierarchical data as a set of nested rectangles of varying sizes, comparing the number of coding references. The tree map is scaled to fit the available space, so the sizes of the rectangles should be considered in relation to each other, rather than as an absolute number.

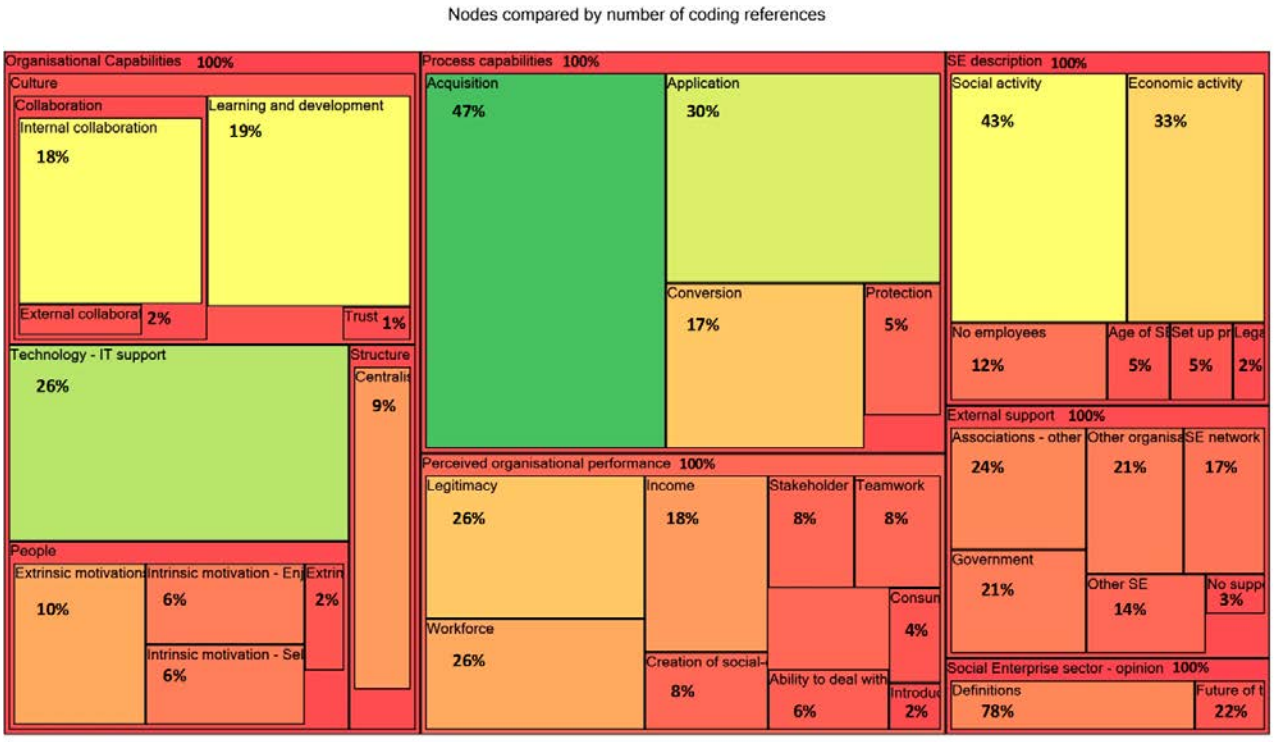


Figure 4.3 - Tree map of first seven interviews

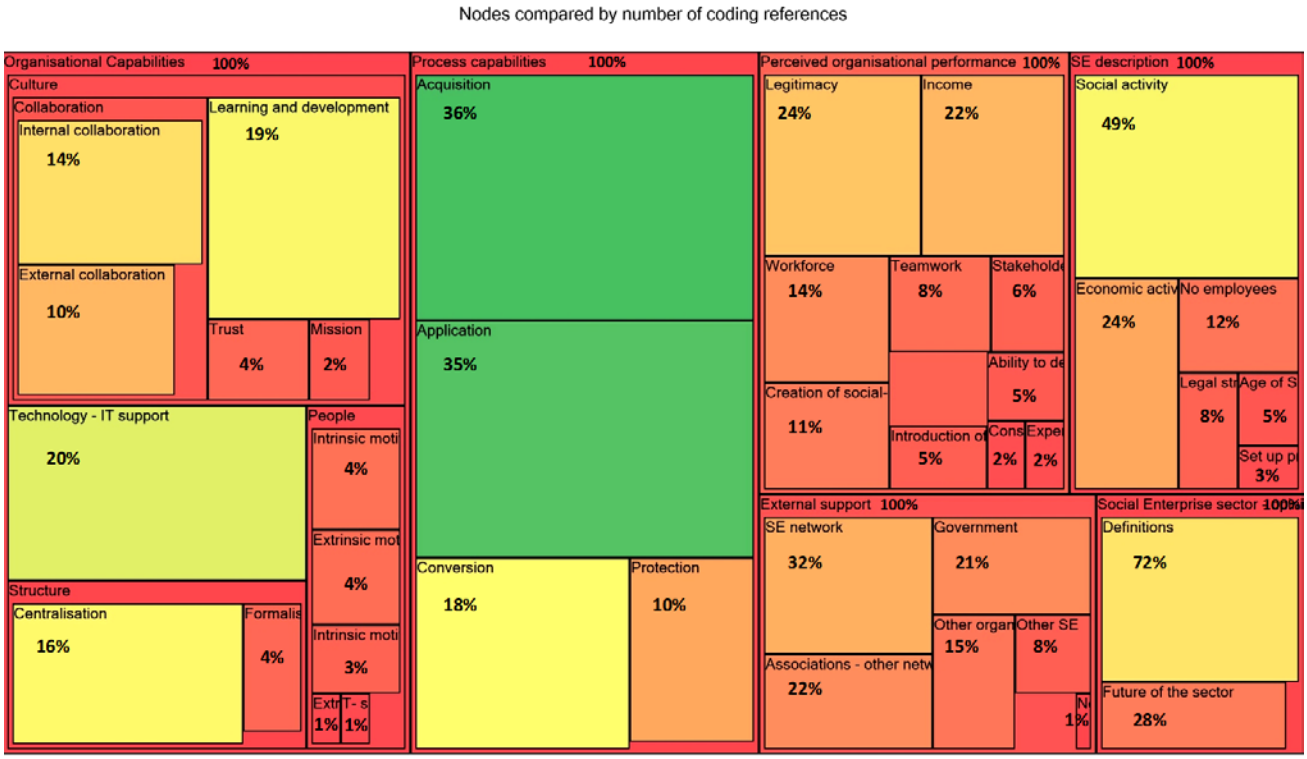


Figure 4.4 - Tree map of first fifteen interviews

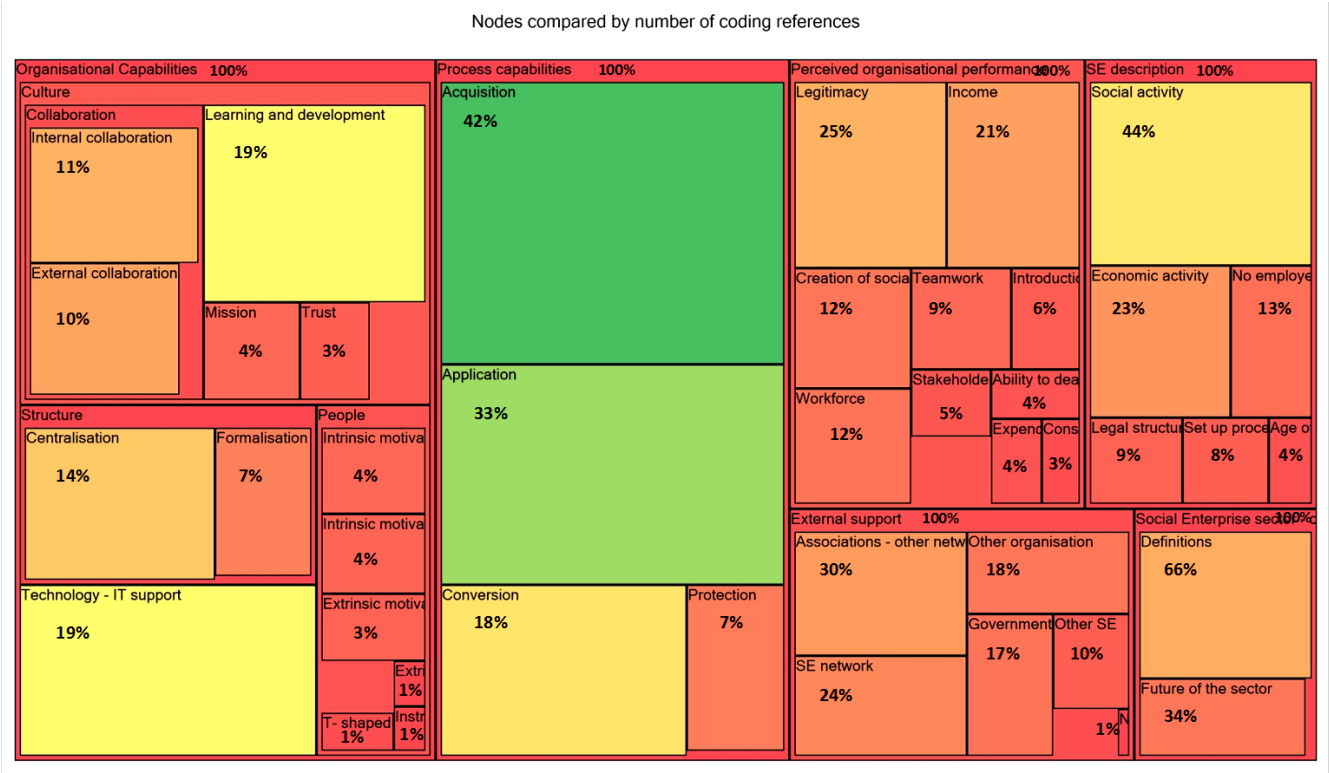


Figure 4.5 - Tree map of all 21 interviews

Drawing upon these figures, it can be recognised how the distribution and size of boxes in in **Figure 4.3** has change significantly with the addition of eight more interviews, **Figure 4.4**. However, by comparing the Tree Map of fifteen interviews with 21 interviews (see **Figure 4.5**),

the patterns are very similar, representing an almost exact distribution and hierarchy of codes and references, confirming the previous statement about data saturation.

Based on the previous discussions, the sample size for the qualitative phase provided the researcher with the confidence to capture the variation in KM experiences within SEs. This permitted to get depth of understanding and to derive meaning from the quantitative results, and to make generalising statements about them.

Ideally, the interviews were set up face-to-face at a venue convenient to the participant and where they would feel relaxed and be able to talk freely. In some cases, online synchronous interviews were conducted using a video internet-mediated system named Skype, for geographically disparate research participants. Synchronous online interviews are becoming an increasingly viable research method (King and Horrocks, 2010; Bryman and Bell, 2011; Cater, 2011; Saumure and Given, 2012). Some of their advantages and disadvantages are listed in **Table 4.7**.

Table 4.7 – Advantages and disadvantages of synchronous online interviews

Advantages	Disadvantages
Extremely inexpensive to conduct compared to face-to-face equivalents	Only people with access to online facilities are likely to be in a position to participate
Interviewees may be able to fit the interview better into their own time	It can be more difficult for the interviewer to establish rapport and to engage with the interviewees
Researchers are not confronted with the potentially discomforting experience of having to use other people's homes or workplaces	Online connections may be lost, so research participants need to know what to do in case of such an eventuality
Ease of audio-recording computer-to-computer	For greater, geographical distances, there may be time lags in the conversation, which can break the flow of an interview
Provide an instant messaging function, which is a useful tool for managing data collection problems and sharing information between interviewee and interviewer	
Geographically flexible	

The researcher experienced some of these advantages and disadvantages using Skype for video-interviews, however, in overall the experience was favourable. First of all, Skype allowed the researcher to perceived body language, office background, and in some opportunities, documents, folders and pictures that enrich the interview. Secondly, Skype interviews were in some cases better than traditional face-to-face interviews. This was because conversations were normally held in quiet places, avoiding background noise that would otherwise interfere with the interview or make the transcription process more difficult.

In order to capture not only what the participants were saying but also the way in which they were saying it, and to allow the interviewer to be alert to what was being said, the researcher made an audio-recording of each interview. Every interview was recorded and then verbatim transcribed as soon as possible after each interview. This type of transcription allows the researcher to capture information in the participant's own words (Hennink *et al.*, 2011).

After transcribing each interview, the researcher and an external, native-English speaker listened to all 21 recorded interviews while following the written transcripts to identify any errors, omissions or inaccuracies. This increased accuracy and completeness of the transcription.

In addition to the interviews, further information was gathered through web sites. This information was, for example, the history of the organisation, its vision, mission and, objectives; other company documentation, such as, annual reports; and published research publications related to the selected organisation. Wherever possible, this information was used to validate the data collected from the questionnaires and the interviews. **Table 4.8** described the type of information collected for each participant.

Table 4.8 - Information for each participant

Participant	Type of information			Detail information
	Audio	**Text**	**Video**	
SE1	✓	✓	✓	Website material
SE2	✓	✓		Website material Annual report
SE3	✓	✓		Website material Annual report
SE4	✓	✓		Website material Company presentation
SE5	✓	✓		Website material
SE6	✓	✓		Website material Official registration report
SE7	✓	✓		Website material
SE8	✓	✓		Website material Company formats Company documents
SE9	✓	✓		Website material
SE10	✓	✓		Website material Company formats Company reports Academic case study report
SE11	✓	✓		Website material
SE12	✓	✓	✓	Website material Organisational video
SE13	✓	✓	✓	Website material Organisational video
SE14	✓	✓	✓	Website material Organisational videos
SE15	✓	✓		Website material Academic report
SE16	✓	✓		Website material
SE17	✓	✓		Website material
SE18	✓	✓		Website material
SE19	✓	✓		Website material Organisational blogs
SE20	✓	✓		Website material
SE21	✓	✓		Website material

The use of multiple sources of information for each participant's organisation permitted the researcher to cross-check the collected information in an attempt to reduce bias affecting the data generated (Bryman and Bell, 2011).

4.3.2.3 Data analysis method

When analysing qualitative data, the researchers face a difficulty because there are few well-established and standardised procedures and approaches for analysing such data (Miles and Huberman, 1994; Merriam, 2009; Saunders *et al.*, 2009; Bryman and Bell, 2011; Hennink *et al.*, 2011). Merriam (2009) presented six of the most commonly used approaches to undertaking qualitative research. These are: basic qualitative research, phenomenology, grounded theory, ethnography, narrative analysis, and critical qualitative research. Each of these approaches

may vary in how the research question is asked, sample selection, data collection and analysis, and write-up.

As was presented in Section 4.1 (Page 98), the justifications of undertaking the qualitative phase of this research is that the researcher recognizes the existence of a gap between the concept of reality, driven by theoretical assumptions, and the 'true' but 'unknown' reality experience within a SE. This understanding of the 'true' and 'unknown' reality requires an interpretative analysis, which represents the 'basic qualitative research' approach proposed by Merriam (2009).

After deciding the approach to analyse the qualitative phase of this research, the next decision is to decide which method is going to be used. Miles and Huberman (1994) presented methods for qualitative data analysis including contact summary sheets, codes and coding, pattern coding, 'memoing', case analysis meeting, interim case summary, vignettes, pre-structured case and sequential analysis.

The main purpose of this phase is to give depth and to derive meaning to the quantitative results that assessed the KMC-SE Conceptual Model. Therefore, it is necessary to employ an analysis method that facilitates the assessment of predefined theoretical concepts, but at the same time permits the study of unique issues raised by participants themselves. This type of analysis is obtained through coding. This involves the grouping and labelling of data in codes, in the process of making it more manageable to display and provide evidence in support of the research aims (Grbich, 2013). These codes can refer to issues, topics, ideas and opinions that are evident in the data (Hennink *et al.*, 2011).

In order to assist and facilitate the coding process, which is explained below, literature recommended the use of computer-assisted qualitative data analysis software (CAQDAS) (Merriam, 2009; Yin, 2009; Bryman and Bell, 2011; Hennink *et al.*, 2011; Bazeley, 2013; Grbich, 2013; Saldaña, 2013). These are code and retrieve programmes that are '*able assistant and reliable tools*' (Yin, 2009, p128) and that efficiently store, organise, manage and reconfigure the data to enable '*human analytic reflection'* (Saldaña, 2013, p28).

Some concerns associated with these software programmes are the move towards controls rather than diagnosis, and towards explanation rather than interpretation (Bryman and Bell, 2007). Thus, the research data may be over-interpreted through the abuse of complex indexing systems. Moreover, the fragmentation process of coding text that are then retrieved and put together into categories or related fragments, risk decontextualising the data (Bryman and Bell, 2011; Bazeley, 2013; Grbich, 2013). On the other hand, some important advantages of CAQDAS can be efficiency and speed in the coding and retrieval process, improvement of

transparency of the qualitative data analysis process, and development of 'trees' that permit the interrelation of ideas and codes (Bryman and Bell, 2011).

By ensuring a well-structured and descriptive process of data analysis, and in order to facilitate an efficient process, Phase 2 of this research was supported with the use of a CAQDAS named **NVivo**. NVivo software was selected because it permitted the inclusion of quantitative data from the related survey, and allowed the development of hierarchical coding.

The process of analysing qualitative data in Phase 2 is presented in **Figure 4.6**. It started with the collected data being uploaded into NVivo software as soon as they were obtained and transcribed. This data included interview transcriptions, website material, company documents and academic/external reports. The data were continuously checked and tracked to question actively in which academic direction the information collected was leading the researcher, and identifying areas that required follow-up (Hennink *et al.*, 2011; Grbich, 2013). This preliminary data analysis helped the researcher to get familiarised with some of the vocabulary and acronyms mentioned by participants, such as, NVQs (National Vocational Qualifications), CVS (Council for Voluntary Services), CRB (Criminal Records Bureau), C4EO (Centre of Excellence and Outcomes), KPIs (Key Performance Indicators) and CQC (Care Quality Commission).

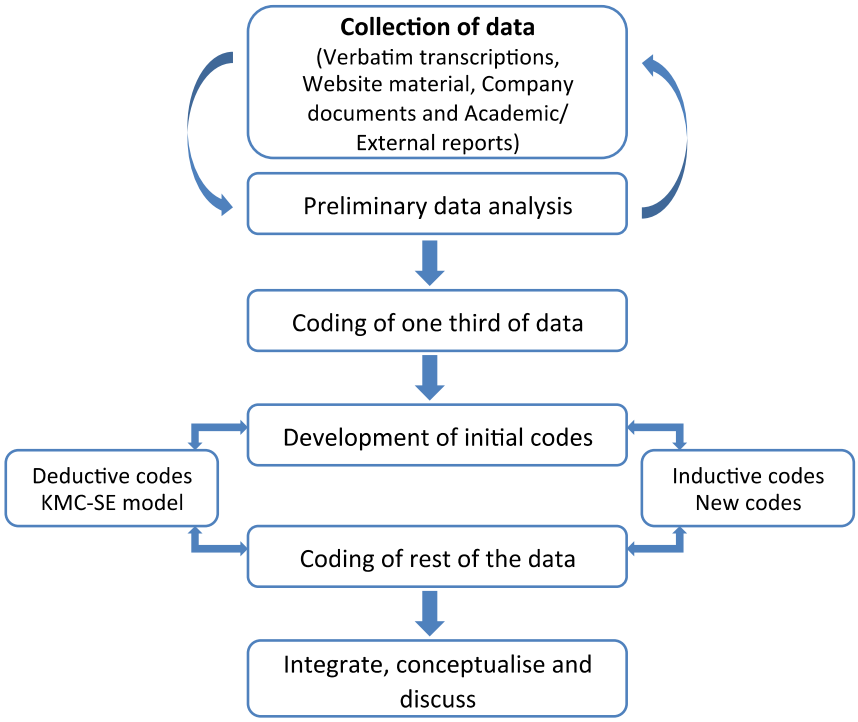


Figure 4.6 - Process of qualitative data analysis developed by the author supported on (Hennink *et al.*, 2011; Grbich, 2013; Saldaña, 2013)

The next stage was coding the data. As was explained previously, the collection of qualitative data were framed in the KMC-SE Conceptual Model. Thus, the coding process includes the identification of elements in the qualitative data that describe the main variables of the conceptual model. These are considered deductive codes because they are originated by the researcher (Hennink *et al.*, 2011). However, in order to avoid introducing a preliminary restriction on the issues to be investigated, new codes were created from the qualitative data. These codes are considered inductive codes because they come directly from the data (Hennink *et al.*, 2011). Additionally, they allow the identification of unique issues raised by participants themselves, as well as the possibility of the theoretical concepts departing considerably from the views of participants (Bryman, 1989; Hennink *et al.*, 2011).

Following the Hennink (2011) recommendation, only one-third of the data, seven transcripts, was read and coded. This permitted the initial development of both deductive and inductive codes, trying to select diverse transcripts so that a broad range of initial codes could be identified. This initial coding process identified 94% (46 of 49 codes) of the final group of codes developed in the study. During this analysis process, data were re-examined and re-coded to enable the researcher to understand the meanings that were well rooted in the data and to classify them accordingly in the deductive and inductive codes. Appendix F (Page 302) presents and describes the deductive and inductive codes employed and developed in this research. Lastly, both deductive and inductive codes were integrated, conceptualised and discussed. Therefore, coding is only the initial step towards an even more rigorous and thorough analysis and interpretation for this research. This is presented in Chapter 5 and discussed in combination with literature and quantitative findings in Chapter 6.

In order to evaluate the quality of the data preparation and coding analysis, Hennink *et al.* (2011) suggested a number of questions that are presented and answered in **Table 4.9**. This confirmed that both data preparation, which consisted of recording and transcription, and coding analysis, were undertaken with high quality standards that give validity and reliability to this phase.

Table 4.9 - Data preparation and coding analysis quality assessment

Quality factor	Question	Answer
Appropriate	Were interviews transcribed verbatim?	Yes (section 4.3.2.2)
	Was a codebook used to maintain consistency in coding?	Yes (Appendix F Page 302)
Transparent	Are data preparation tasks described?	Yes (section 4.3.2.2)
	Are code development and coding described?	Yes (section 4.3.2.2)
Grounded	Were inductive codes developed?	Yes (section 4.3.2.2)
	Were the codes and concepts developed well-grounded in data?	Yes (section 4.3.2.2)
Saturation	Was code development saturated?	Yes (section 4.3.2.2)
Interpretive	Was colloquial language maintained in transcripts?	Yes (section 4.3.2.2)
Ethical	Have all identifiers been removed from data transcripts?	Yes

4.4 Conclusions of Chapter 4

This chapter has identified the methodological approaches and research strategy assumed in this study to achieve the research aim and objectives. It started by reviewing a number of philosophical paradigms that are widely used in social science and business. The empirical investigation of how KMCs can be developed in the particular context of SEs required the researcher to assume both deductive and inductive approaches. In order to assess the theoretical assumptions associated with KMCs and include the specific realities of SEs, this research adopted a critical realism stance.

This chapter has also demonstrated that, according to the research aim and objectives, and the research paradigm, a mixed method is the most appropriate research strategy for this study. In particular, mixed method was justified as an approach for testing theory in order to evaluate the validity of the hypotheses proposed in Chapter 3. In order to assess the theoretical elements of the KMC-SE Conceptual Model, and provide a subjective explanation of these findings, a sequential explanatory research design was adopted. Such a design provides a framework for describing the phases, activities and the flow of the research process.

The first and second phases, quantitative and qualitative respectively, were described, paying specific attention to sampling, data collection and data analysis decisions. The justification of the sample frame for both phases, that is, the senior members of self-defined SEs that were members of UK SE networks, was detailed. Additionally, reasons were presented to select web-based, survey questionnaires and in-depth interviews as the main methods for data collection in both phases. An objective approach was followed in the analysis of the quantitative data supporting the examination and validation of the KMC-SE Conceptual Model.

The analysis of the qualitative data involved a more subjective approach where coding techniques were used.

In the next two chapters, Chapter 5 and 6, the collected data in Phase 1 and Phase 2 will be described, presented and discussed in the form of research findings.

Chapter 5

Data Analysis: Quantitative and Qualitative

This chapter provides the empirical analysis of the KMC-SE Conceptual Model developed in Chapter 3, following the research strategy described in Chapter 4, and should be read in conjunction with Appendix G (Page 304) and H (Page 333). The aims of this chapter are twofold. Firstly, to analyse the data collected in the first phase of this research, that is, the quantitative data from the web survey questionnaire. In doing so, a description of the sample is presented in Section 5.1.1, followed by the statistical analysis using Confirmatory Factor Analysis and Structural Equation Modelling in Section 5.1.3. The analysis provides an assessment of how the empirical data fits the theoretical assumptions of the KMC-SE Conceptual Model. This information is used to identify the elements that need further explanation by means of the second phase of this research.

Secondly, to analyse the qualitative data from the second phase. These data were collected with in-depth interviews to participants of the first phase that were willing to contribute to further research. Section 5.2.1 presents a description of the qualitative sample and Sections 5.2.2, 5.2.3, 5.2.4 and 5.2.5 examine the qualitative data following the coding strategy described in Chapter 4 (Section 4.3.2.3 Page 124). The combination of both quantitative and qualitative analyses with KM and SE literature will occur in Chapter 6. This integration will result in the assessment of the KMC-SE Conceptual Model, and the development of the empirically assessed KMC-SE Model, which are the second and third objectives of this research.

5.1 Phase 1 - Quantitative data analysis

The first empirical phase of this research involves a quantitative study that will assess, test and validate the theoretical assumptions proposed in the KMC-SE Conceptual Model. This supports the achievement of the second objective of this research. The methodological description of this phase is presented in Chapter 4 (Section 4.3.1 Page 105).

The data collected in this phase consists of **432** responses received on SurveyMonkey within the two months of data collection. As was defined in Chapter 4 (Section 4.3.1.1 Page 106), the questionnaire included a filter question at the beginning to assure that data were actually collected from people working in SE. By analysing the data obtained from Survey Monkey, from the total 432, 39 respondents did not work for SEs. Consequently, these entries were deleted from the final dataset, resulting in a total of **393** responses collected. All subsequence analyses in this section are based on 393 responses.

In the next section, descriptions of the quantitative sample are presented. This is followed by a detailed quantitative analysis using Confirmatory Factor Analysis and Structural Equation Modelling. An overview of the general findings of the quantitative analysis is presented in Section 5.1.4.

5.1.1 Quantitative sample – statistical description

5.1.1.1 Organisational descriptive statistics

Table 5.1 describes the organisational characteristics of the sample in Phase 1. Illustrative figures, such as pie charts and bar charts are presented in Appendix G (Section 1 Page 304). The following are the interpretations drawn from **Table 5.1**.

- Region of operation of Social Enterprises: as was expected, based on the number of Social Entrepreneurs contacted from English networks (71%), the majority of respondents worked for SEs that operate mainly in England (59%) and then Wales (15%). The analysis of this question also revealed that 15.4% of SEs operates in at least two countries from UK, with 8% working also internationally.
- Age of Social Enterprise: half of respondents work for SEs established for more than five years, with 10% working for new SEs.
- Size - number of employees: According to the enterprise classification offered by the European Commission, 53% were Micro, 22% were Small, 9% were Medium and 4% were Large-sized SEs, with 12% reporting no paid staff. Thus, 84% of responses come from small and medium SEs. By interpreting patterns of paid and volunteer staff working for SEs, 9.5%

of SEs are operating with volunteers only, and larger organisations do not use volunteers in the same way as SMEs (81% on average employed volunteers).

- Legal status: 55% of respondents work for SEs registered as a Limited Company. Only 24% of SEs are registered as Community Interested Company (CIC), which is the legal form created by the government to cover SEs. From all SEs, only 32% were registered as charities.
- Main objectives of Social Enterprises: 63% of SEs have social objectives among their main objectives. From all SEs, 13% have a third bottom line with social, environmental and economic objectives, and 26% having double bottom line. Only 2% have only economic objectives.

Table 5.1 - Organisational demographic description

Organisational information	Number	Frequency
Region where operating		
England	308	59%
Wales	80	15%
Scotland	61	12%
Northern Ireland	32	6%
International	44	8%
Age of SE		
Less than one year	36	10%
1 - 2 years	72	19%
3 - 4 years	62	16%
5 - 9 years	85	23%
10 or more years	121	32%
Number of employees (paid staff)		
0	47	12%
1 - 9	201	53%
10 - 49	82	22%
50 - 249	33	9%
250 - 999	11	3%
1,000 and over	3	1%
Legal form		
Limited Company	183	55%
Community Interest Company (CIC)	81	24%
Co-operative Society (Co-op)	11	3%
Charitable Incorporated Organisation (CIO)	10	3%
Sole Trader	8	2%
Trust	7	2%
Others	34	10%
Main objective (multiple answer)		
Social	346	63%
Environmental	113	21%
Profit	87	16%

The organisational characteristics of the sample followed similar patterns already identified in government statistics about SEs (Villeneuve-Smith, 2010). That is, almost three quarters of them have less than 50 employees, with half with one to nine employees; more than half of them existing as SEs for more than 10 years; and the majority working in England with less than 10% operating internationally. This gives validity to the findings in this phase because the

sample possesses characteristics similar to those already identified in government statistics, resulting in a more accurate representation of the population (Bryman and Bell, 2011).

5.1.1.2 Individual descriptive statistics

The following analysis corresponds to questions related to demographic information from respondents and their relation with their SEs. **Table 5.2** presents the descriptive statistics and further charts are illustrated in Appendix G (Section 1 Page 304).

- Demographic data – age - gender: The majority of respondents were older, with an almost equal response coming from female and male;
- Studies and previous experience: High levels of education were identified in respondents with 43% having a first degree, and another 43% also having a post-graduate degree. Regarding previous experience, 34% of respondents have previous business experience, followed by 24% with charity experience. A significant 22% have previous academic or educational experience. About 10% of participants stated they had business, charity, SE and academic experience before working for their current SE; and
- Role and working time in Social Enterprise: More than half of respondents have been working in their SEs for more than four years, and 82% more than two years. Respondents were majority owners, managing directors or CEOs for their SEs, with 95% of responses collected from, at a minimum, senior managers in SEs.

Table 5.2 – Individual demographic description

Participant information	Number	Frequency
Age		
20 - 29	14	5%
30 - 39	38	14%
40 - 49	87	32%
50 - 59	99	36%
60 or older	35	13%
Gender		
Male	124	48%
Female	135	52%
Highest level of educational achievement		
No formal qualifications	6	2%
GCE 'O' level, or equivalent	12	4%
GCE 'A' level, or equivalent	20	7%
Degree, or equivalent	118	43%
Post-graduate degree	117	43%
Prior experience		
No such prior experience	23	4%
Prior Social Enterprise experience	81	15%
Prior educational/academic experience	119	22%
Prior charities experience	128	24%
Prior business experience	181	34%
Role in SE		
Owner/Managing Director/CEO	183	67%
Senior Management	74	27%
Junior Management	18	7%
Working time in SE		
Less than six months	12	4%
Six months - one year	36	13%
2 - 3 years	71	26%
4 - 5 years	54	20%
6 or more years	100	37%

5.1.2 Data preparation - Missing data and outliers

To identify missing data, the following four steps proposed by Hair *et al.* (2010) were followed:

i. *Determine the type of missing data:* the missing data were not ignorable;

ii. *Determine the extent of missing data*: 24% of missing data were identified. By exploring each case, 64 cases were deleted for having more than 80% of missing data, reducing the total percentage of missing data to 11% and the total of responses to 329. A last iteration deleted 23 cases with more than 80% of missing data in scalar variables questions, which are the variables validated in the following CFA and SEM models. The final number of cases obtained was **306** with **6%** of missing data. By exploring missing data for each variable, no variable was identified with less than 11% of missing data for scalar variables, thus no variables were deleted;

iii. *Diagnose the randomness of the missing data processes*: by initial observation of missing values, the missing patterns were random. This information was confirmed with a Missing Value Analysis in SPSS running the Little's MCAR test. The null

hypothesis for Little's MCAR test was that the data are missing completely at random (MCAR). The significance level obtained in this research was 0.953 confirming the data were missing completely at random (MCAR); and

iv. *Select the imputation method*: because the data were MCAR, any imputation method could be used. Following the Hair *et al.* (2010) recommendation, a multiple imputation strategy was applied to derive a composite estimate for the missing value. Using the multiple imputation tool from SPSS, five imputations were obtained creating a new dataset of **306** responses with 0% of missing data for scalar variables.

To determine outliers, the Mahalanovis D2 measure was obtained for each scalar variable. Dividing the resulted measures by the degrees of freedom (53), a maximum value of 2.8 was obtained. The threshold levels for this value should be less than 3.0 for samples with more than 50 cases (Hair *et al.*, 2010). This indicates that not outliers are identified in the data.

5.1.3 Confirmatory Factor Analysis and Structural Equation Modelling Analysis

To 'confirm' or 'reject' the KMC-SE Conceptual Model presented in Chapter 3 and to assess the validity of the measurement model, a Confirmatory Factor Analysis (CFA) and then Structural Equation Modelling (SEM) needs to be executed (see Chapter 4 Section 4.3.1.3 Page 112).

To represent the conceptual model as a path diagram designed in AMOS software, the elements of the conceptual model presented in **Figure 3.6** (Page 88) were included as follows:

- Latent variables of second-order (unobserved variable that is represented by multiple latent variables of first-order): Organisational Capability, Process Capability and Organisational Performance;
- Latent variables of first-order (unobserved variable that is represented by multiple observed variables): Collaboration, Trust, Learning, Mission, Structure, T-shaped skills, Intrinsic Motivation, Extrinsic Motivation, Technology, Conversion, Application, Acquisition, Protection, Return, Workforce and Innovation, Stakeholder environment and Internal activities; and
- Observed variables: Indicators of each latent variable of second order described in Appendix C (Page 294).

The path diagram presented in **Figure 5.1** consists then of 18 latent variables and 53 observed variables. The 18 unobserved or latent variables mentioned are represented by ovals. Double-headed arrows between each pair of the second-order, latent variables allow for covariances between each pair of these latent variables in recognition of their likely association with each other. The indicators, also called observed variables, are represented in the diagram by boxes.

The single-headed, straight arrows that originate with the first-order, latent variables and terminate in the indicators represent direct relationships from the latent to the observed variables. The error effect is connected to each indicator and represents all the variables that influence the indicator besides its respective latent variable.

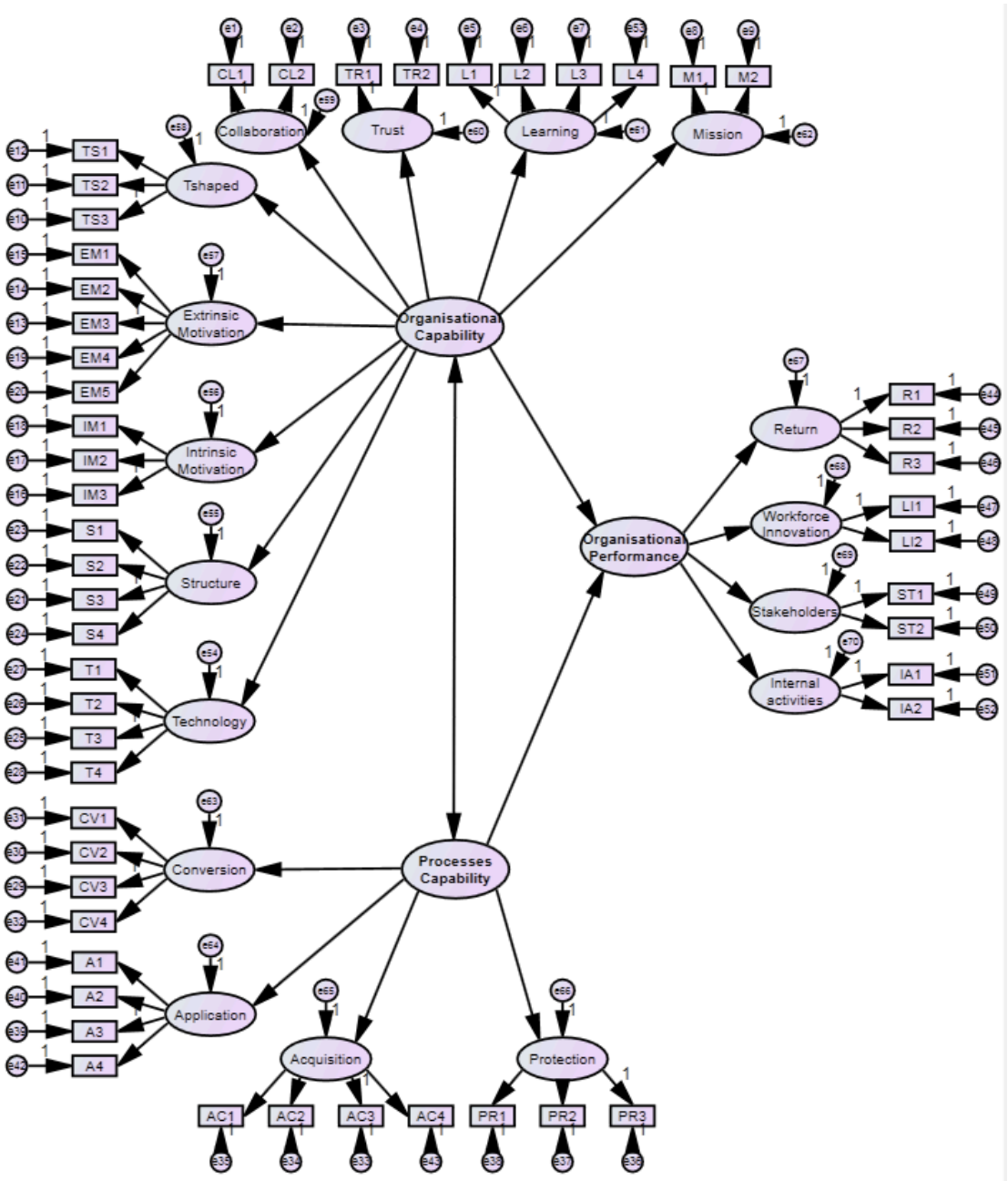


Figure 5.1 - Proposed KMC-SE Conceptual Model with 18 constructs on AMOS

The KMC-SE Conceptual Model, as a structural equation model, can also be represented by a series of regression, structural equations (Byrne, 2010). These are defined in Appendix G (Section 2 Page 306). In a more ordinal way, the relationship between the indicators and each latent variable may be explained with the following example: the level of collaboration within the SE of a participant '*i*' makes him answer the statement CL1 in a certain way, therefore, collaboration causes CL1 and the error element causes the answer given to CL1.

To run the SEM for testing measurement theory validation with CFA, the six stages proposed by Hair *et al.* (2010) are followed:

5.1.3.1 Defining individual constructs

The definition of each construct of the KMC-SE Conceptual Model is presented in **Table 5.3** (all questions used five Likert-type scale).

Table 5.3 - Construct definition

Second-order factor	First-order factor (Latent Construct)	Explanation	Measured indicator variables *
Organisational Capability	Culture - Collaboration	Degree to which people in a group actively help one another in their work	CL1 CL2
	Culture - Trust	Degree of reciprocal faith in others' intentions, behaviours, and skills toward organisational goals	TR1 TR2
	Culture - Learning	Degree of opportunity, variety, satisfaction, and encouragement for learning and development	L1 L2 L3 L4
	Culture - Mission	Degree to which people share the definition or the organisation's purpose	M1 M2
	Structure - Decentralisation	Level at which most decision making occurs	S1 S2
	Structure - Informalisation	Amount of formal rules, policies and procedures within the SE	S3 S4
	People- T-shaped skills	Degree of understanding one's and others' task areas	TS1 TS2 TS3
	People-Extrinsic motivation	Rewards: Degree to which one believes that one can have extrinsic incentives due to one's knowledge sharing	EM1 EM2 EM3
		Reciprocity: Degree to which one believes one can improve mutual relationship with others through one's knowledge sharing	EM4 EM5
	People-Intrinsic motivation	Self-efficacy: Degree to which one believes that one can improve the organisation's performance through one's knowledge sharing	IM1
		Reputation: Degree to which one believes one can enhance one's status in one's social system through one's knowledge sharing	IM2
		Enjoyment in helping others: Degree to which one enjoy helping others and transferring one's knowledge	IM3
	Technology - IT support	Degree of IT support for collaborative work, for searching and accessing, for communication, and for information storing	T1 T2 T3 T4
Process Capability	Acquisition	Processes/activities/mechanisms of developing new content and replacing existing content within the organisation's tacit and explicit knowledge base	A1 A2 A3 A4
	Conversion	Processes/activities/mechanisms orientated toward making existing knowledge useful. Some of the processes that enable knowledge conversion are a firm's ability to organise, integrate, combine, structure, coordinate, replace or distribute knowledge	PR1 PR2 PR3
	Application	Processes/activities/mechanisms orientated toward the actual use of the knowledge. Some of the process related to application of knowledge are storage, retrieval, application, contribution, and sharing	AC1 AC2 AC3 AC4
	Protection	Processes/activities/mechanisms designed to protect the knowledge within an organisation from illegal or inappropriate use or theft	CV1 CV2 CV3 CV4

Organisational Performance	Return	Creation of social /environmental value, income and expenditure	R1 R2 R3
	Workforce and innovation	Introduction of new products, workforce	LI1 LI2
	Stakeholder	Consumer and stakeholder satisfaction	ST1 ST2
	Internal activities	Ability to deal with change and teamwork	IA1 IA2

* From Survey questionnaire in Appendix C (Page 294)

5.1.3.2 Developing and specifying the measurement model

At this stage, it is required to consider carefully how all of the individual constructs come together to form an overall measurement model. The measurement model permits the determination of the closeness of association of different latent variables after taking account of measurement error and seeing whether, or not, the latent variables are empirically separable from each other (Bollen and Noble, 2011).

Considering the model definition presented in Chapter 3, the KMC-SE Conceptual Model included a group of uni-dimensional measures (statements in the questionnaire – Appendix C Page 294). These are a set of measured variables that serve as indicators of the underlying and latent construct that they are presumed to represent (first-order factors, such as, technology). Subsequently, a group of these latent variables become indicators of a second-order factor (organisational and process capabilities). This hypothesised that cross-loadings are zero when uni-dimensional constructs exist, and that the first-order factors are sub-dimensions of a broader and more encompassing construct.

Both Organisational and Processes Capabilities are exogenous variables. Exogenous latent variables are synonymous with independent variables, because they cause fluctuations in the values of other latent variables in the model (Byrne, 2010). Organisational Performance is an endogenous variable. Endogenous variables are synonymous with dependent variables and, as such, are influenced by the exogenous variables in the model, either directly or indirectly (Byrne, 2010). The relationship among these measures and factors is reflective, which indicates that latent constructs cause the measured variables and that the error results in an inability to explain fully these measured variables.

Another element to consider when developing the measurement model is the number of items per construct. For this research, the items were obtained initially from previous survey instruments developed to measure similar constructs. Then they were redefined in terms of the respondent characteristics, Social Entrepreneurs. Good practice dictates a minimum of three items per factor to provide not only minimum coverage of the construct's theoretical domain, but also to provide adequate identification for the construct (Hair *et al.*, 2010). As is presented in **Table 5.3**, the conceptual model included six constructs that have only two items,

since they were significant enough to explain the constructs. To avoid possible estimation problems, Exploratory Factor Analysis (EFA) was executed to confirm the construction of each second-order variable and identify possible integration of constructs.

The EFA was executed using SPSS software. The EFA and the interpretation for each key element of the KMC-SE Conceptual Model are presented in Appendix G (Section 3 Page 307). The EFA confirmed the majority of theorised factors for the constructs of Organisational Capability, Process Capability and Organisational Performance. However, it also indicates some possible constructs that can be merged or removed due to low factor loadings. **Table 5.4** specified the results of the EFA.

Table 5.4 - EFA for initial KMC-SE Conceptual Model

Second-order factor model	Initial first-order factors	Re-specification?	Elements deleted or modified after re-specification
Organisational capability (OC)	Technology Structure Collaboration Trust Mission Learning T-shaped skills Extrinsic Motivation Intrinsic Motivation	Yes	Merge Collaboration and trust constructs Delete construct T-shaped skills (TS1-TS3) Delete items S4, EM4, EM5, IM2
Process capability (PC)	Acquisition Conversion Application Protection	Yes	Delete CV1
Organisational performance (OP)	Return Workforce and innovation Stakeholder Internal Activities	No	Add LI2 (Workforce) to Return construct Delete LI1 (New products)

Drawing upon EFA results, the final group of constructs on the conceptual model is fourteen first-order constructs and three second-order constructs. From these, two constructs were 'under-identified' with two items, six constructs considered 'just-identified' with three items, and six with four items. The two 'under-identified' constructs were maintained in the model following the recommendation by Blunch (2013) and Bollen and Davis (2009) that, if the indicators are significant enough to explain the constructs, and the complete model is 'identified', it is possible to have some 'under-identified' constructs in the model.

5.1.3.3 Designing a study to produce empirical results

The empirical study has been designed and defined in Chapter 4. The final sample of **306**, with 0% of missing data, broadly satisfies the requirement proposed by different authors, such as, fifteen responses for each parameter defined by Hair *et al.* (2010), which is 15 x 14 = 210, and

a minimum of 200-300 observations proposed by Blunch (2013). This allows for the sampling error's impact to be minimised, especially for non-normal data.

5.1.3.4 Assessing measurement model validity

This step establishes acceptable levels of goodness-of-fit for the measurement model and finds specific evidence of construct validity. Because this is a Second Order Model, each second-order factor is assessed as independent measurement models before assessing the complete measurement model (Byrne, 2010). The three, second-order, factor models assessments are described in detail in Appendix G (Section 4 Page 311). **Table 5.5** presents a description of the three Second Order models that comprised the complete conceptual model proposed in this research, after CFA and re-specification were conducted.

Table 5.5 - CFA of Second Order Models

Second-order factor model	Initial first-order factors	Re-specification?	Elements deleted after re-specification	Final Overall Fit	
				CFI	RMSEA
Organisational capability (OC)	Technology Structure Collaboration and trust Mission Learning Extrinsic Motivation Intrinsic Motivation	Yes	Technology Extrinsic Motivation Items L2-S4 Covariance between e3 (TR1 error) and e4 (TR2 error)	0.916	0.078
Process capability (PC)	Acquisition Conversion Application Protection	No		0.930	0.085
Organisational performance (OP)	Return + workforce Stakeholder Internal Activities	No		0.972	0.058

The Complete Measurement Model (CMM), including the three second-order factor models, was assessed with AMOS software, including modification on the second-order factor model of Organisational Capability. The assessment of the complete measurement model is detailed in Appendix G (Section 4 Page 311).

The assessment of the Complete Measurement Model indicated the need for re-specification. This included removing the variable 'Protection' from Process Capability, and the item EM4 from Extrinsic Motivation. The overall fit of the complete measurement model was a CFI of 0.904 and a RMSEA of 0.055. Both indices are accepted based on the cut-off values proposed by Hair *et al.* (2010). That is a CFI above 0.9 and a RMSEA below 0.08.

Thus, the three second-order models with eleven first-order factors structure, illustrated in **Figure 5.2**, served as the measurement model for the Complete Model throughout the analysis

related to the full causal model. As a consequence of this measurement restructuring, the revised model replaced the originally hypothesised KMC-SE Conceptual Model developed in Chapter 3, as the hypothesised model to be tested.

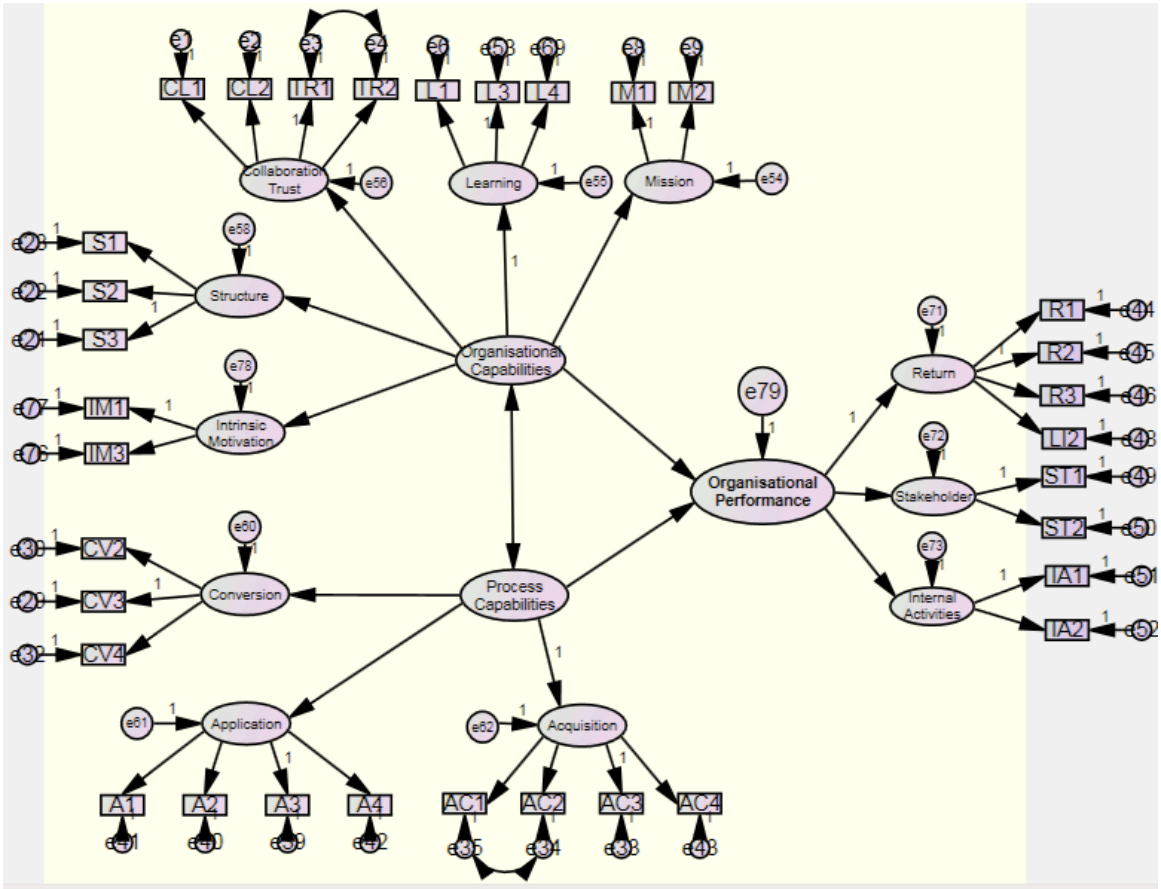


Figure 5.2 - Complete Measurement Model

5.1.3.5 Specifying the structural model

At this stage, once it was known that the Complete Measurement Model operated adequately, the model was specified by assigning relationships from one construct to another based on the proposed conceptual model. The relationships for the proposed model are specified as hypotheses described in **Table 3.13** (Chapter 3, Page 93).

5.1.3.6 Assessing the structural model validity

The final step involved the validity of the structural model and its hypothesised theoretical relationships. Here, the structural model applied the structural theory by specifying which constructs were related to each other and the nature of each relationship.

As described in Appendix G (Section 5 Page 323), the assessment of the structural model resulted in the same overall fit as the CFA of the Complete Measurement Model (CFI = 0.904 and RMSEA = 0.055). However, the hypothesised path between Organisational Capability (OC)

and Organisational Performance (OP) was not significant. Due to the importance of this hypothesised relationship, an indirect relationship was tested. As described in Appendix G (Section 5 Page 323), it was concluded that the OC has an indirect effect on the OP though its effect on Process Capability (PC).

Provided with this information, the model presented in **Figure 5.3** serves as the final tested model representing the determinants of KMCs and OP of SEs. The values associated with each path are standardised regression coefficients. These values represent the amount of change in Y given a standard deviation unit change in X. The values above each dependent variable are the R^2 value. Therefore, it can be determined that **54%** of the variance associated with PC is accounted for by its predictor OC. Likewise, it can be determined that the indirect effect of OC and the direct effect of PC explain **20%** of the variance associated with OP.

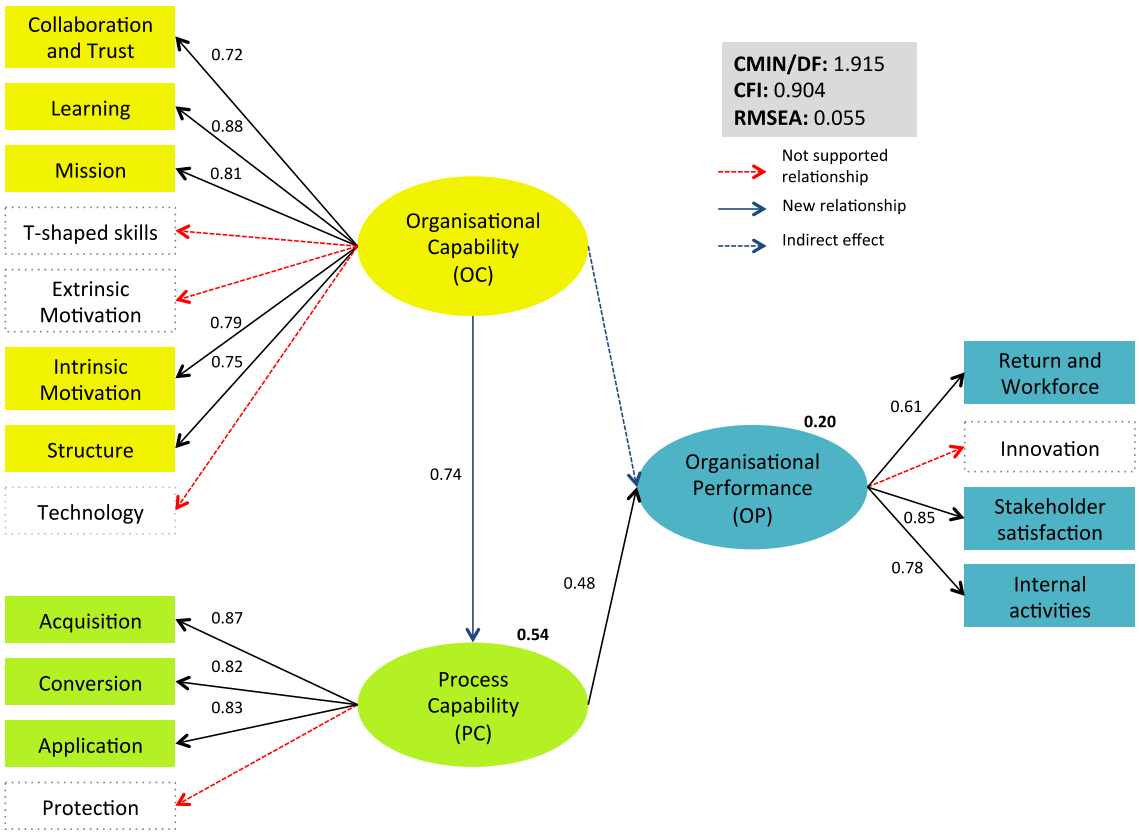


Figure 5.3 – SEM Final Model

Analysing first the unstandardised estimates for the structural parameters paths described in Appendix G (Section 5 Page 323), it can be recognised that all paths, apart from the one between OC and OP, are statistically significant as indicated by their p-values. This confirms the causal relationship between OC with PC, and the improvement on p-value for the causal relationship between PC and OP.

Taking into consideration the findings from the final SEM model illustrated in **Figure 5.3**, **Table 5.6** describes the acceptance or rejection of the initial hypotheses proposed in the KMC-SE Conceptual Model (Page 92), including the four alternative hypotheses. A total of eleven hypotheses from twenty-one were supported with the empirical data collected in Phase 1, with six hypotheses not supported and four created as alternative hypotheses.

Table 5.6 - KMC-SE Conceptual Model hypotheses test

Variable	Elements	No.	Hypothesis		Variance explained
Organisational performance (OP)		**H1**	KMCs (both organisational capability and process capability) have a positive effect on organisational performance (OP) of SEs	Not supported	
		H2	KM organisational capabilities have a positive effect on OP of SEs	Redefined as Ha1 and Ha2	
		H3	KM process capabilities have a positive effect on OP of SEs	Supported	20%
Organisational Capabilities	**People**				
	T-shaped skill	**H4**	T-shaped skill has a positive effect on the OC of SEs	Not supported	Factor loading 0.523
	Extrinsic motivation	**H5**	Extrinsic motivation has a positive effect on the OC of SEs	Not supported	Factor loading 0.250
	Intrinsic motivation	**H6**	Intrinsic motivation has a positive effect on the OC of SEs	Supported	62.6%
	Technology IT support	**H7**	Technology has a positive effect on the OC of SEs	Not supported	Factor loading 0.419
		H8	Technology does not have an effect on the OC of SEs	Supported	
	Structure	**H9**	Structure (decentralisation and informalisation) has a positive effect on the OC of SEs	Supported	56.8%
	Culture				
	Collaboration	**H10**	Collaboration has a positive effect on the OC of SEs	Redefined as Ha3	
	Trust	**H11**	Trust has a positive effect on the OC of SEs	Redefined as Ha3	
	Learning	**H12**	Learning has a positive effect on the OC of SEs	Supported	76.8%
	Mission	**H13**	Mission has a positive effect on the OC of SEs	Supported	65.6%
Process capabilities	**Acquisition**	**H14**	Acquisition has a positive effect on the PC of SEs	Supported	75.7%
	Conversion	**H15**	Conversion has a positive effect on the PC of SEs	Supported	68%
	Application	**H16**	Application has a positive effect on the PC of SEs	Supported	69.3%
	Protection	**H17**	Protection has a positive effect on the PC of SEs	Not supported	Factor loading 0.559
Organisational Performance	**Return**	**H18**	Return has a positive effect on the OP of SEs	Redefined as Ha4	
	Workforce and Innovation	**H19**	Workforce and Innovation has a positive effect on the OP of SEs	Not supported (Innovation)	Factor loading 0.486
	Stakeholder environment	**H20**	Stakeholder environment has a positive effect on the OP of SEs	Supported	72.1%
	Internal activities	**H21**	Internal activities has a positive effect on the OP of SEs	Supported	61%
Alternative hypotheses		**Ha1**	OC has an indirect effect on OP through its effect on PC	Supported	0.333 (p=0.015)
		Ha2	OC has a positive effect on PC of SE	Supported	54%
		Ha3	Collaboration and Trust have a positive effect on OC of SE	Supported	51.6%
		Ha4	Return and Workforce have a positive effect on the OP of SEs	Supported	37.4%

5.1.4 Overview of main findings of Phase 1

The final model in **Figure 5.3** represents the assessment of how the empirical data, obtained from 432 members of SEs in UK, differs from the KMC-SE Conceptual Model developed in Chapter 3.

The statistical process to reach the final SEM model demonstrated that the initial hypothesised conceptual model established in Chapter 3 was not explaining the real experiences and practices undertaken by SEs in UK. As was explained in Chapter 3 (Section 3.1 Page 48), this difference was expected. This is because the KMC-SE Conceptual Model was developed under theoretical assumptions drawn from previous KM research in other sectors and types of organisations. Moreover, no previous empirical research was undertaken about current KM practices in SEs, and there was a paucity of research on organisational behaviour of SEs (see Chapter 2 Section 2.2.3.3 Page 26).

Therefore, each of the elements that, either were confirmed or rejected with the empirical data, presented a contribution to current KM and SE literature by themselves. These differences are presented as follows, and discussed and explained in combination with the qualitative analysis in Chapter 6.

1. No influence of 'T-shaped skills', 'Extrinsic Motivation' and 'Technology' in Organisational Capability (OC);
2. No influence of 'Protection' in Process Capability (PC); and
3. 'Innovation - Introduction of new products' did not measure Organisational Performance (OP).

The most revealing finding in the final SEM model was the mediating or indirect effect of Organisational Capability (OC) in Organisational Performance (OP) through its effect on Process Capability (PC). The hypothesised KMC-SE Conceptual Model indicated that both organisational and process capabilities, together creating a KMC, had an influence on OP of SEs. However, findings from the quantitative study suggested that the OC has a significant influence on the effectiveness and development of the PC, but not a direct effect on OP. This indicates that only by developing and implementing knowledge activities and procedures, the OC can improve performance of SEs.

Taking into consideration the discussed findings of CFA and SEM, as well as the statistical analysis of all indicators and variables of the final KMC-SE Conceptual Model presented in Appendix G (Section 6 Page 326), areas for further analysis in Phase 2 are defined. The

interpretation of those statistical analyses and the areas of further analysis are presented in **Table 5.7**.

Table 5.7 - Interpretation of statistical findings for each variable and further analysis

Element of KMC-SE	Findings interpretation	Variable / factor	Further Analysis required
Organisational Capability	The indicators with higher measures were related to cultural issues such as trust, collaboration and clear mission. The lower values were obtained for learning and development opportunities.	Learning and developing	• To investigate the programmes that SEs are implementing for training and development of their members; and • To enquire about the content, frequency, formality, providers, decision criteria, and possible internal and external barriers for providing accurate programmes.
		Mission and vision	• To explore the ways that Social Entrepreneurs share their mission, as well as their vision, among its members.
		Technology	• To explore further the reasons for the finding that the variable 'Technology' did not have any influence on OC, as well as on the complete conceptual model; and • To analyse the type of technology currently in use; the importance of technology for improving organisational performance; and barriers when acquiring technology, for example, lack of financial resources, lack of skilled staff, little time or little interest.
Process Capability	Respondents confirmed the existence of either processes or mechanisms to manage knowledge within their SEs. The most common activities were related to application of knowledge, followed by acquisition activities. The lower values were obtained for conversion activities. Protection activities were not included in the final version of the SEM model.		• To explore the nature of knowledge acquisition, conversion and application activities with more detail, investigating, for instance, frequency, formality and scope; and • To enquire more about knowledge protection activities and their non-relationship with the development of PC in SEs.
Organisational Performance	Overall, performance of SEs has improved in the last 12 months, mainly in terms of creation of social and environmental value, which is the main purpose of SEs. This was followed by indicators more intangibles, such as teamwork and stakeholder satisfaction. The performance indicators with lower values were related to return variable, which includes more tangible indicators such as income and expenditure.		• To explore the elements of organisational performance of a SE that are affected by the management of knowledge.
Additional elements	These additional elements permit to obtain of a complete and valid idea of current organisational elements and knowledge activities within SEs that can develop KMCs.		• To identify the types of knowledge managed internally and externally by SE members; • To evaluate the perception of value of the knowledge; • To explore member's relationship with the knowledge; and • To explore possible difficulties created because of the tension between the social mission and the necessity of earning income within the SE, for example, influence on members' motivation, culture or decision-making.

5.1.5 Analysis of contextual dimensions

As was explained in Chapter 3 (Section 3.4.1 Page 87), a group of contextual dimensions were assessed in this study to explore organisational and external environmental characteristics that may influence the KMC-SE Conceptual Model. The descriptive analysis of the first two elements, size and age of the SE, were described at the beginning of this chapter in Section 5.1.1 (Page 131). The other two elements, impact of economic environment and external support, are analysed as follows. Another element included, as reference for the model development, was the existence of formal KM programmes.

Additionally, to evaluate the statistical significance of the relationship between the contextual dimensions (categorical data), in the variables of the KMC-SE Conceptual Model (ordinal data), a Chi-square statistic is used. This test is used to determine whether observed counts in cells are different from expected count. Since the Chi-square statistic assumes a discrete distribution rather than a normal distribution, the results will be statistically valid (Chan and Walmsley, 1997). The Chi-square statistic results are presented in Appendix G (Section 7 Page 331) and interpreted in the following sections. The discussion of these findings with regard to the overall empirical results is presented in Chapter 6.

5.1.5.1 How has the economic climate affected your organisation's performance?

This contextual variable was associated with the impact of economic climate on a SE's general performance. This variable permits the conceptual model to include external elements that might influence a SE's performance, independently of their organisational activities.

Just over half of the respondents (52%) indicated their SEs have been negatively affected by the current economic climate, resulting in a decrease of SEs performance. Only a quarter of respondents recognised a positive impact on their SEs during current economic difficulties (24%).

The results of Chi-square test between the effect of the economic climate in SEs and the measurement variables of the KMC-SE Conceptual Model indicated that, as is expected, SEs that have been positively affected by the economic climate have a better performance in the last 12 months. This performance was measured in terms of creation of social values, income, workforce and stakeholder satisfaction.

5.1.5.2 What type of support has your Social Enterprise received from the Social Enterprise network it belongs to, or from other Social Enterprise?

As was explained in Chapter 3, another contextual variable was the external support received by SEs from networks or other enterprises. Respondents were asked whether SE networks or

other SEs provide them with business consultation, formal and informal training, and financial resources. **Figure 5.4** presents the findings:

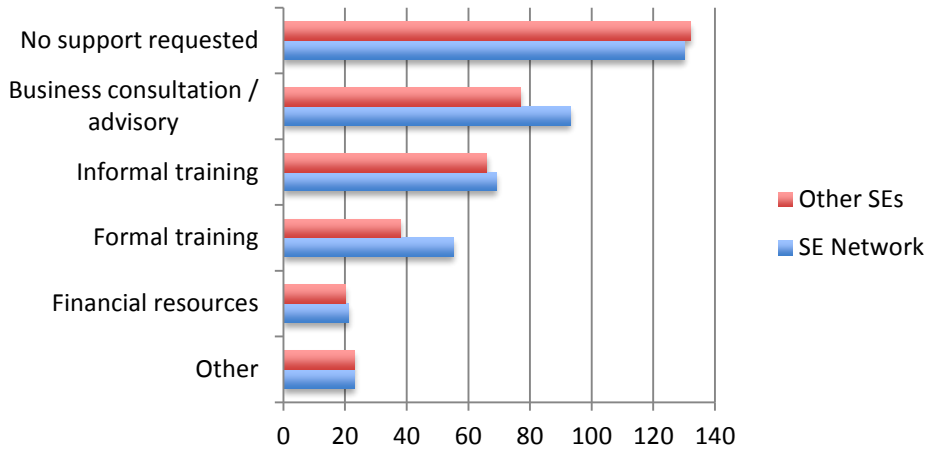


Figure 5.4 - Type of support from SE networks and other SEs

From **Figure 5.4** it may be seen that 33% of respondents, did not request any support from SE networks or other SEs. The most common support received from both SE networks and other SEs, when requested, was business consultation (22%), followed by informal (17%) and formal (12%) training and lastly, financial resources (5%). The category 'Other' was analysed and classified in the categories presented in **Table 5.8**.

Table 5.8 - Type of support from SE networks and other SEs

Social Enterprise networks	Other Social Enterprises
Lobbying	Contracts
	Mentoring and coaching
	Partnership opportunities
Networking	
Information sharing	
Peer support	

The results of a Chi-square test between the effect of external support from networks and other SEs, and the measurement variables of the KMC-SE Conceptual Model, did not indicate any significant relationship between these variables. This may be because of the type of question and the different combinations of possible responses.

5.1.5.3 Does your Social Enterprise have a Knowledge Management Programme in place

Social Entrepreneurs were asked questions about their current practices of KM. As it was important to identify the awareness and understanding of SEneurs about the subject from their perspective, no standard definition of KM was included in the questionnaire.

The first question asked if the SE had a KM programme in place. From 432 responses, 66% responded 'No', 26% were 'Not sure' and only 8% responded 'Yes'. A follow up question was asked of respondents that had answered 'Yes'. This was an open question asking for a description of the different KM activities implemented in their SEs.

A total of nineteen answers were obtained about KM activities implemented in SEs. These answers were analysed and grouped in four terms. See **Figure 5.5**.

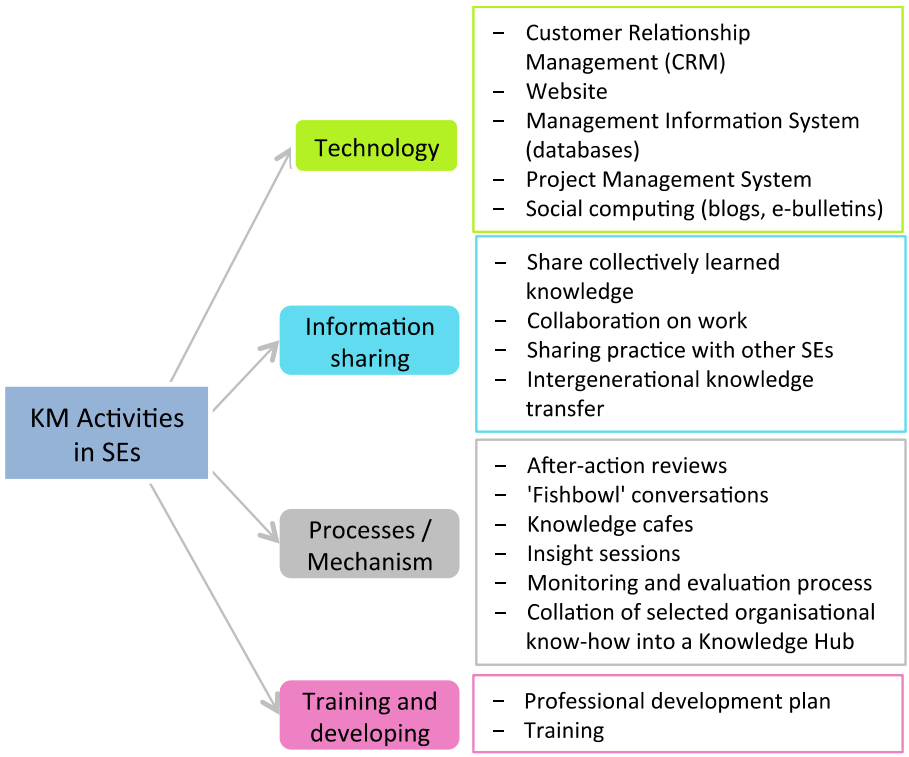


Figure 5.5 - KM activities implemented in Social Enterprises

The results of a Chi-square test between the existence of KM programme in the SE, and the measurement variables of the conceptual model raised two significant findings. One indicates a statistically significant difference between SEs that have implemented a KM programme in terms of their IT support to knowledge activities. The clustered bar charts demonstrated that SEs with KM programmes have more availability of IT support for activities such as, retrieving and storing information. The second significant findings demonstrated that SEs that have implemented KM in their operations, have more availability of process or mechanisms for applying, converting and protecting knowledge, than SEs without KM programmes in place.

5.1.5.4 Age of Social Enterprise

The results of Chi-square test between the Age of SE and the measurement variables of the conceptual model indicated that, measures related to conversion processes and organisational performance were statistically different for at least one of the categories of Age of SEs.

However, the Chi-square test does not indicate which categories are different, or if the difference is meaningful. Thus, by reviewing the sign of correlation coefficients for each pair of variables, and by analysing the clustered bar charts produced by SPSS, it was possible to infer which categories were different.

For instance, it can be inferred, with statistically significance of 95%, that younger SEs had more availability of processes for knowledge conversion, than the older ones. Similarly, younger SEs report better organisational performance, in terms of creation of social value, income, workforce and customer satisfaction, that older SEs.

5.1.5.5 Size of Social Enterprise

The results of a Chi-square test between the Size of SE, and the measurement variables of the conceptual model, specified that differences among the sizes of SEs were significant for measures related to 'Learning', 'Technology' and 'Performance'. By analysing these parameters, it can be inferred that:

- Larger SEs, in terms of number of employees, provide more learning and developing programmes, that satisfy members' necessities, than smaller SEs;
- Larger SEs have more IT support for KM than smaller SEs; and
- Larger SEs have improved their performance, in terms of income, expenditure and workforce, than smaller SEs.

5.2 Phase 2 - Qualitative data analysis

The second empirical phase of this research involves a qualitative study that gives depth to, and creates meaning for, the quantitative results. This helps to achieve the second objective of this research, which is the assessment of the KMC-SE Conceptual Model. The methodological description of this phase is presented in Chapter 4 (Section 4.3.2 Page 114).

This phase consisted of 21 semi-structured interviews conducted with members of SEs in UK who answered the survey questionnaire and were willing to participate in further research. An *'aide-memoire'* guide was used in each interview (see Appendix E Page 301). The topics covered included how their SEs were managing their knowledge, what kind of knowledge they have and how they were developing organisational and process capabilities. In order to explore these elements more fully, topic probes were used that had been derived from the KMC-SE Conceptual Model and the quantitative findings. As explained in Chapter 4, the analysis of these data follows a 'basic qualitative research' approach with coding methods. A list of inductive and deductive codes was presented in Appendix F (Page 302). These included

all the variables of the KMC-SE Conceptual Model and some additional codes that were obtained inductively from the data.

In the next section, descriptions of the members of the qualitative sample are presented. This is followed by a detailed qualitative analysis of each variable of the KMC-SE Conceptual Model, as well as the contextual dimensions of SEs.

Additionally to this, Appendix H (Section 2 Page 338) analyses the opinion given by participants in this phase about the generalities and possible future of the SE sector. These comments are important for this research because it brings more context and explanation to the idiosyncratic characteristic of SEs.

5.2.1 Qualitative sample - Organisational background

The participants of Phase 2 were 21 founders/Chief Executives/Senior Managers of SEs in UK that participate in Phase 1 of this research. To maintain confidentiality and anonymity of the participants and their organisations, participants are named SE1, SE2, …. SE21. The description of the selection process of these participants as well as its justification is presented in detail in Chapter 4 (Section 4.3.2.1 Page 115).

Although some organisational background and descriptions of each participant's enterprise were reported in the survey questionnaire, additional information was also obtained in the interviews and supported documents. Some of this information was the description of social, environmental and economic activity, and exact number of employees. By combining results from the questionnaire, the interviews and the documentation collected, a fuller description of each participants and their organisation is presented in Appendix H (Section 1 Page 333).

The table in Appendix H (Section 1 Page 333) illustrates the diverse group of participants and SEs that participated in the Phase 2 of this research. The group was represented mostly by micro (13) and small (7) organisations, with only one medium size enterprise. In terms of legal form, the qualitative sample represent six different types, including mostly Limited Company and Community Interest Company (CIC). The age of the enterprises was relatively high, with more than half of the participants working in mature SEs with more than a four-year life-span, and six with more than ten years of existence.

As has been supported in Chapter 2 (Section 2.2.3 Page 18), these SEs undertook the wide range of social, environmental and economic activities that can be identified in the SE sector. Ranging from: consultancy enterprises, mainly supporting other SEs, to financial institutions, such as credit unions, community centres and publishers.

5.2.2 Organisational Capability (OC)

The information collected from the 21 interviews was examined in relation to the KMC-SE Conceptual Model. The first element of the conceptual model to be analysed is the organisational pre-conditions to develop KMCs described in Chapter 3 and accessed in the Quantitative study. These pre-conditions are associated with technology, people and organisational structure and culture. The analysis of the explanations and experiences given by participants, in combination with data obtained from supporting documents, regarding elements of the OC, are presented in the following sections.

5.2.2.1 Organisational Structure

As discussed in Chapter 3 (Section 3.2.1.3 Page 61), two specific elements of organisational structure were explored in this research: centralisation and formalisation. The quantitative study demonstrated that decentralised and informal organisational structure was crucial in developing the OC. Consequently, each of these elements was explored in more detail in the qualitative phase and their analysis is presented as follows:

a) *Decentralisation*: This element is related with the level at which most decision-making occurs in an organisation. In order to understand the different levels of decision-making presented in SEs, and how centralised or decentralised are their structures, **Figure 5.6** describes the different organisational structures identified in the SEs. Below each structure are the participants who described this model in their SEs and the number in brackets is the number of employees of the SE. A detailed table describing each participant's structure is presented in Appendix H (Section 3 Page 341).

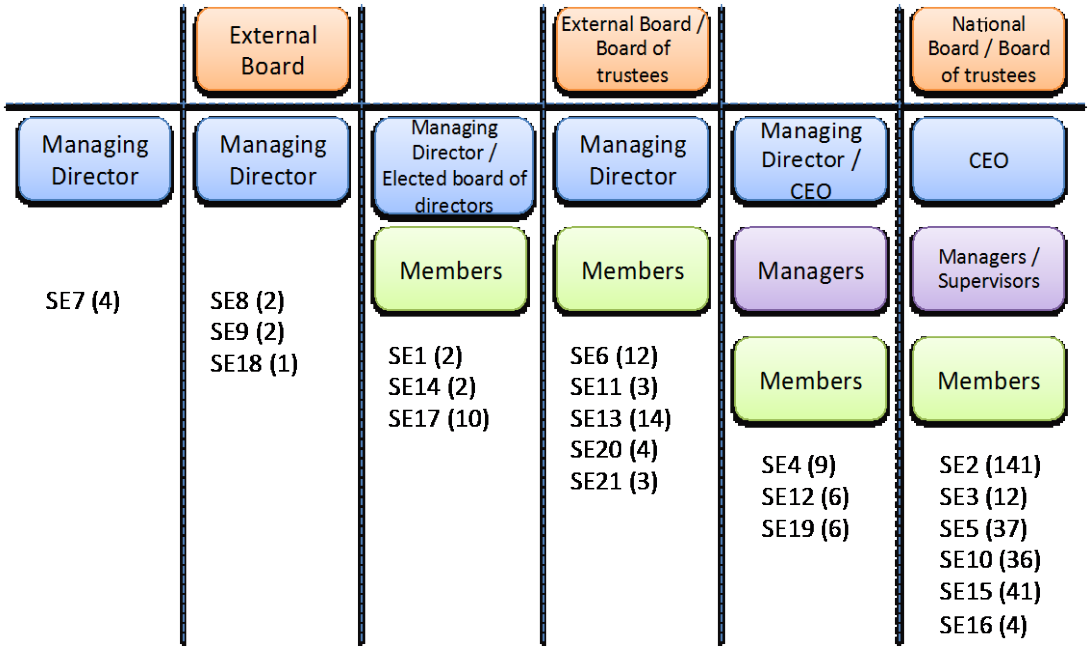


Figure 5.6 - Organisational structures of participant SEs

SEs range from organisational structures with one level to four levels of decision-making. The four cases are:

- The first case with one level of decision-making features an enterprise with four directors, each having equal decision power and without any other members or external board;
- The second case with two levels of decision-making is either SEs with external boards that support a managing director with strategy development, or another group of SEs that only have a managing director leading a group of members;
- The third group, with three levels of decision-making, also features two different sub-cases. One group has an external board, or boards of trustees, in the highest level of decision making, followed by the managing director who leads the members of the SE. The other group has a managing director leading the organisation, with a middle group of managers / supervisors who are in charge of the other members of the SE; and
- The fourth and last case is SEs with four levels of decision-making. These are SEs with an external board that supports a CEO/Managing Director, who leads a middle management level that supervise the rest of the members of the SE.

b) *Informalisation*: This is the second element considered in the variable structure and it is associated with the quantity and extent of formal rules, policies and procedures within the SE. Participants described some formal policies and procedures, which are presented in **Table 5.9**.

Table 5.9 - Policies and procedures in SEs

Policies	Participant
Training policies	SE10 (36)
Health and wellbeing policies	SE19 (6)
Confidentiality policies	SE10 (36)
Procedures	
Standard operating procedures	SE17 (10) and SE19 (6)
Reporting procedures	SE21 (3)
Appraisal procedures	SE10 (36) and SE19 (6)
Formal meetings	
Formal and standard meetings	SE6 (12), SE10 (16), SE13 (14), SE17 (10) and SE20 (4)
Annual General Meetings	SE13 (14) and SE20 (4)
Board meetings minuted and sometimes recorded	SE2 (141), SE3 (12), SE5 (37), SE6 (12), SE8 (2), SE9 (2), SE10 (36), SE11 (3), SE13 (14), SE15 (41), SE16 (4), SE18 (1), SE20 (4) and SE21 (3)

On the other hand, some participants described that their organisations prefer to *'keep things quite informal'* (SE16) and do not have formalised meetings because *'we don't really like that, it's a bit vague'* (SE19). Others preferred more informal *'ad-hoc'* meetings (SE17), or just have meetings by *'all sit down and have lunch together'* (SE19).

The variable 'structure', as explained in Chapter 3 (Section 3.2.1.3 Page 61), has a significant influence on the development of KMCs. This is because it is the level of centralisation and formalisation of the enterprises that would allow or restrict the flow of knowledge within the organisation. As can be observed by participants' comments regarding their structures, micro (less than 10 employees) SEs tend to have relatively flat structures, with only two levels of decision. Only small (less than 50 employees) and medium size enterprises (less than 250 employees) featured organisational structures with a medium/supervision level. Likewise, only seven participants described having formal rules, policies and procedures, indicating that SEs are managed in a relatively informal style.

The implications of these findings in combination with the quantitative ones will be discussed, with the support data gathered from the literature review, in Chapter 6 (Section 6.1.1.3 Page 193).

5.2.2.2 Technology

The concept of technology was studied in this research as any technology, more specifically, information technology (IT) that supports the management of knowledge within SEs. During the interviews, the researcher included probes to enquire about any type of information technology employed by their SEs to support their management of information and knowledge. **Table 5.10** presents all the IT systems described by participants that support specific knowledge and information activities.

Table 5.10 - IT systems employed by participant SEs

Activity	IT support	Micro SEs	Small SEs	Medium SEs
Share information internally	Central shared server	SE11, SE19, SE20	SE6, SE13, SE17	
	Cloud solutions	SE1, SE11, SE14		
	Dropbox	SE7, SE11, SE14		
	Google Docs	SE11		
	Google calendars	SE11		
	Skype	SE7		
	Data system (policies and procedures)		SE10	
Share information externally with community, stakeholders and/or public	Website	SE7, SE16, SE21	SE3	
	Facebook	SE19, SE8		
	Twitter	SE19, SE8		
	Interactive platform for community (forum)	SE16		
	Blogs	SE19, SE21		
	LinkedIn	SE8		
Store information	Databases	SE4, SE7, SE8, SE9, SE14, SE19, SE20, SE21	SE3, SE5, SE6, SE10, SE13, SE17	
	Online databases	SE8, SE19, SE14		
	Dropbox	SE14, SE8		
	Scan	SE1		
	Cloud solutions	SE1		
Backup / protect information	Back-up system	SE19		
	Remote system	SE19		
	Dropbox	SE8		
Collect / acquire information	SurveyMonkey	SE8, SE14		
	Scan	SE1		
	Webinar (externally)	SE14		
	'Free hand' software		SE10	
	E-resources (ebook)	SE1		
Manage information	Orders management software	SE19		
	EPOS (Electronic point of sale)			SE2
	Accounting software			SE2
	Client record management system		SE3	
	Contact management database AIMS (Advice and Information Management System)	SE8		

As can be observed in **Table 5.9**, SEs are using IT mainly to support sharing information activities among their members and also with their stakeholders. Additionally, SEs are employing IT to store information, mainly with databases. Other activates, such as, collection and back-up of information were also described by participants. In only a few cases, sophisticated, dedicated software for managing information were used.

However, not all participants reported having IT support in their organisations. Some of them were aware of the importance of technology to support their processes and operations but did not have them in place due to various limitations. These are presented in **Table 5.11**.

Table 5.11 - IT support limitation

Barrier / limitation	Perceived outcome	Participant
Need more specific database management	*'… making sure that we know who we should be talking to, what we should be promoting to, on an on-going basis …. so then we learn how to sell things better'.*	SE5
Need of a 'phone' system to record conversations undertaken by their service call centre	*'… most people can see what is been said and what approaches are been made to different individuals, groups or organisations'.*	SE5
Lack of customer relationship management systems	*'…three of us could be trying to pursue the same individual about three different things and none of us be aware'*	SE6

Others, on the other hand, expressed their organisation were more '*computer based*' (SE4), and that they were using technology as much as they can to facilitate their operations (SE2, SE14 and SE16). As SE4 recognised:

> *'[We] won't be able to do what we do without using IT and we are always on the look-out for ways to use technology to improve our systems, improve our service and the products that we can give to our members.' (SE4)*

Five participants recognised the importance of IT in their organisations, and four described the use of more sophisticated software for information management. Despite this, it was generally perceived by participants that more IT support is required in their organisations in order to improve their performance and impact. Nevertheless, they also recognised that it is difficult to justify the investment and effort to buy and implement technology projects with their limited resources base.

5.2.2.3 People

The concept of People is employed in this research as the willingness of members of the organisation to create and share knowledge. This willingness is associated with both intrinsic and extrinsic motivations and to specific skills.

Considering the first element, motivations, specific information given by participants about their own and/or other members' motivations was analysed, as well as the strategies implemented by the SEs to motivate their employees. For instance, both SE3 and SE12 concurred that two different groups of people can be identified in their SEs. There is one group of people whose only motivation is ''*That's what I am paid for' and they get on it'* (SE3). The second group is *'… the ones who are interested, who want not the money, not the security, but*

are interested in the service we provide and let it continue' (SE3) or *' … who join it for a job and those people are there, initially, to earn money, and they get to understand the organisation. The values of that organisation can be part of their make-up'* (SE12).

The case illustrated by SE2 described people who are both extrinsically and intrinsically motivated to work in the SE. This SE employs project managers that have a business background and

> *'… they want to do, they need to do, something to earn some extra money and they want to do something that would benefit the society generally, so they come to work for us and they get paid for doing it and we get benefit from their professional management expertise.' (SE2)*

Describing a group of people with more intrinsic motivations, SE17 mentioned that

> *'If you ask people [in SE17] what do they want, they are not necessarily thinking growth, because they like to be this size, it's a nice working environment, and that's very important to people, working in a friendly environment … we are all very close'. (SE17)*

Participants recognised that giving extrinsic rewards, such as bonuses or better salaries was difficult in their SEs. Therefore, as SE19 explained *'… we can't pay massive pay-bonuses at the end of the year or whatever. So, we have to provide incentives and rewards as we go along'*. Following this line of thought, three participants described different strategies implemented in their SEs to motivate their employees in general, and also to share knowledge. These strategies are presented in **Table 5.12**.

Table 5.12 - Intrinsic motivation strategies in SEs

Intrinsic motivation strategies	Participant
• *'Duvet day'*: ' … once a quarter, if someone wake up and decides, 'you know what, I really can't face going to work today', they can call in at the last minute and say 'I'm claiming my duvet day''. • *'Happy manifesto':* everyone tries to make it a nice place in which to work, including doing social events together, like organising trips to the cinema or theatre. • *'Health and wellbeing policy':* help their employees to stay healthy, and invests in the development of individuals within the business	SE19
• Employees' own expertise presentations*: '… a team meeting that is focussed on a particular topic that might be one member of staff's expertise …. more about what people bring to the organisation and probably not everyone is aware of'.* This strategy has been received positively by employees and '*people find it quite exiting and they find it interesting'.*	SE6
• Training and development: Offering employees training and developing new skills about new processes and working structures in the organisation. This has resulted in: *'it makes them feel we are organised better. It concerns better skills, their skills' and 'it makes them feel more recognised that their job is really important, it gives them status and kudos, and they can say 'Oh, look at all my files.''.*	SE21

Despite these various strategies implemented by SEs, three participants acknowledged some difficulties related to motivation. One case was described by SE3 who recognised that it has

been difficult for them to find the right people for the organisation because they do not have the resources to offer a good salary. Likewise, the SE of SE7 has currently four directors of whom two work full time in other companies, resulting in some difficulties to engage and motivate this people with the SE. As SE7 expressed it:

> *'If we engaged more, if we worked together in a better way we would actually achieve a lot more, but it's just finding the motivation … so it's not very easy to find time to reflect'. (SE7)*

In the third case, although SE15 acknowledges that directors and leaders in his SE *'are hands-on people, they like to do, they like to get their hands dirty',* he also recognised that they do not see *'management of data and the gathering of knowledge as that important'.*

Overall, participants accepted that, under the economic restrictions of their SEs, intrinsically motivating their employees to be efficient and to share their knowledge is crucial. Nonetheless, this can also bring some difficulties to the SEs in terms of acquiring the best people and incentivising them to spend time and resources sharing their knowledge. This can be illustrated by the general comment given by SE12 about SEs:

> *'… if we want to make social enterprises really mean something, you have to have ambitious people who are willing to go that bit further, to create a business but without the believe that they would be hugely rewarded if it is successful. You have to have the people who are willing to compromise on their expectations but get the value from the social delivery as well as the financial reward'. (SE12)*

As was explained at the beginning of this section, another element assessed within the variable 'People' was the existence of specific skills that promote KM, named T-shaped skills. These skills represent the degree to which members of the SE understand theirs' and others' task areas, and at the same time are specialised in their own. While participants mentioned some elements of these skills, these were more related with collaboration behaviour and specific knowledge activities. Therefore, these are analysed with detail in those sections.

5.2.2.4 Culture:

The concept of culture is understood in this research as what guides the behaviour of the enterprise's employees. Four elements of culture that influence the development of KMCs were assessed in the KMC-SE Conceptual Model. These are collaboration, trust, learning and development and mission. Each of these concepts was included as a probe in the interviews and the responses are analysed in the following sections.

Collaboration

Collaboration in this research is defined as the degree to which people in a group actively help one another in their work. When enquiring about this element in the interviews, six

participants described their cultures to be in some form collaborative. This can be corroborated by the following comments:

> *'Everybody does work together. It is not as though someone is doing one job in isolation' (SE4);*
>
> *'We work very co-operatively. So it's lots of team meetings, lots of sharing of ideas, lots of sharing information between staff and volunteers.' (SE16);*
>
> *'We enjoy working together and we see the results being achieved with quite a tough client group' (SE15);*
>
> *'We have to act collaboratively, and if we don't, we're breaking our own objectives' (SE8);*
>
> *'We do have regular staff meetings, so that knowledge is shared … we share the knowledge very much' (SE20); and*
>
> *'I think that's [collaborative culture] absolutely essential to just keep everything, keeping all the balls up in the air sometimes.' (SE13).*

Five other participants recognised the importance of having a collaborative environment in their SEs. They explained the different strategies they have implemented to embed collaboration within their organisational cultures. These strategies and their perceived advantages are presented in **Table 5.13**.

Table 5.13 - Strategies for embedding collaboration in SEs

Strategy	Advantage / outcome	Participant
Have people who participate in previous projects with the organisation to present this to the new members and *'let them explain what it was like'*	Share experiential knowledge of the value of their contributions to the projects. This results in *'…encouraging our volunteers to stay with us'*. *'… if you put a 17 years old talking to a 14 year old it is much closer. It is more relevant. The language is right. The method of communication is right'.*	SE9
Obtain a subsidised office space	*'..allowed us to sit next to each other every day, and we could talk'* *'it really moved us on in terms of knowing what was going on with each other, made us far more responsive. Cause we are very proactive people, but sometimes you need to be reactive and that was always difficult when we were in two different places'.*	SE9
Having a small group of people (employees)	*'We are all very close, so there is the advantages that we do know about each other jobs, which gives you a lot of strengths … try to work as a team, it's quite a close feeling.'*	SE17
Having a collaborative culture where *'everyone is quite supportive of each other'*	Improved their clients satisfaction - Clients were coming back to the enterprise. Having a group of people that can *'cross-cover for each other'*.	SE19
	Securing the operationalisation of the enterprise: *'We try to share as much information as we can between each of us just for safety in case anything happens.'*	SE16
Getting people to recognise that *'they work for one organisation that happens to be a charity and not a business, although we follow business principals'*	*'… senior management teams are working much more collaboratively, so there is a lot more discussion around development.'* *'It is actually much better because it is no longer an internal competition about who looks like they are doing well, or not. It is a collective ownership of the whole organisation and people are patted on the back for the collective success of the organisation, which is much nicer.'*	SE5

Despite the significant attention given by SEs to cultivate a collaborative culture, participants also mentioned some difficulties their organisations are facing to assure and maintain this culture within their SEs. The cause and effect of these difficulties are presented in **Table 5.14**.

Table 5.14 - Difficulties for embedding collaboration in SEs

Cause / difficulty	Effect	Participant
Not having a shared office	*'We don't get together as a group of directors nearly enough so our strategic aim is not as ambitious as it should be. I think it is just a problem of physical location'.*	SE7
	'I think that's something that we could be better at actually, sharing information like that. But she would know where the information was held on my computer, but some of it all, it's difficult'.	SE14
Members of SE *'are attached to their projects and don't want to know what other people do, they just 'that's what I am paid for' and they get on'.*	This has become *'unbearable'* as they get smaller. The strategy assumed by the organisation was then: *'… trying locating people so that they hear too what other people do and try to start talk about and help each other, so everybody knows what everybody does'.* Even though they have tried this relocation many times, *'… as soon as people are in front of their computers, they just don't want to know'.*	SE3
Difficulties among members to access and share information in the central server	*'People, I think, are still bit nervous to get poking in a folder that they are not really familiar with. I think people don't quite feel that everything there it is in common ownership. So, it's not perfect yet.'*	SE6

Overall, it can be interpreted that culture in SEs is characterised by a collaborative atmosphere, where participants are encouraged to share their knowledge with other members of the SEs, and managers are aware of the multiple benefits that this can result for the performance of the SE. This collaborative environment cannot, however, permeate all members of the SEs, and some SEs would find it difficult to manage different attitudes and drivers.

Trust

Trust is this research is defined as the degree of reciprocal faith in others' intentions, behaviours, and skills toward organisational goals. Trust can facilitate an open and willing knowledge exchange among members. Based on this, it was clear that elements of trust were expressed and embedded in the comments given by participants to collaboration environment within their SEs. Thus, only a few additional references to trust were identified in the interviews and supporting documents.

One case where trust was important for the organisation was described by participant SE9. The enterprise has two directors with different responsibilities, so it is important that *'he's comfortable knowing that I know what I'm doing, whereas I'm usually planning to work out what I'm doing (SE9)'.*

In the case of participant SE21, who has part of her group working in Africa, trust has been a key element to guarantee the success of the organisation. In her words:

> *'I trust them. I think sometimes I know that when I'm reading, of course sometimes I have to do a double-take and interpret what it says, and said, 'no, there would be a reason why that's being said or…'. But then that's because I know them'. (SE21)*

Learning and development

The concept of learning and development in this research is associated with the degree of their opportunity, variety, satisfaction, and encouragement in organisations. Generally, learning facilitates the creation of new knowledge.

Participants refer to specific elements of their learning and development practices and strategies. These included information about how formal these strategies are, the different opportunities offered to members, and also some difficulties faced by organisations to implement these strategies.

Starting with the formality of these learning and development strategies, two participants, SE10 and SE19 commented that their SEs have currently training and development policies. In some cases, these policies are accompanied by specific budgets, which are divided equally among employees (SE6, SE10 and SE11). Some others have a Personal Development Plan for all of their members, like SE19, who is devoting a lot of effort and resources in assuring that people are constantly learning and developing and that *'they are having their needs met'*. This is comparable with the strategies undertaken by participant SE16's SE where training and development is offered on a needs basis, looking at *'developing the individual, what their needs are'*.

The types of training and development activities offered, or undertaken by, SEs' members are listed in **Table 5.15**.

Table 5.15 - Training and development activities in SEs

	SE1	SE2	SE3	SE4	SE5	SE6	SE7	SE8	SE9	SE10	SE11	SE12	SE13	SE14	SE15	SE16	SE17	SE18	SE19	SE20	SE21	Total
Qualifications (NVQs)		X		X						X	X											4
Social media								X					X						X		X	4
Statutory training (first-aid, health and safety)					X								X			X						3
Business and management related training (for example, marketing and accountancy)					X						X								X			3
Social Enterprise related conferences and workshops							X				X											2
School of Social Entrepreneurs																			X		X	2
Mentoring and coaching						X															X	2
Induction to staff and volunteers																X						1
Online training (webinars)														X								1
Co-operative development training																X						1
Charitable law training					X																	1
Equal opportunity training														X								1
Governance training													X									1
Dealing with employees													X									1
Risk assessment													X									1
Protection for the adult, childcare and health problems													X									1
Change management													X									1
IT training																					X	1
Training in another member's job																	X					1

An additional training was offered to volunteers, however, as SE16 mentioned:

> *'They are here for relatively short periods of time, 8 to 12 weeks. The idea being that while they are here, they gain experience of working with us, working on projects, so in that relatively short period of time it is quite difficult to get people into formal training, we then try to keep it very informal, in-house, but they get training support and pick up skills that they are looking to gain.' (SE16)*

Participant SE4 concurred with SE16 by deciding not to give too much training to volunteers because *'they tend to be fairly transitory'*.

Some of this training was offered and coordinated internally by leaders of the organisations. However, some other training and learning opportunities were provided by external organisations, like networks, association or in some cases the government, sometimes free of charge, or at very affordable cost. This type of external support will be studied in more detail in Section 5.2.5 (Page 174).

As it happened in other sectors, SEs are also facing some difficulties on assessing different options of training and development. Some of these difficulties were associated with:

- *'Difficult to justify'* if the training would *'push me forward'* (SE9);
- Senior staff not having the time to participate in training because they '*are sort of busy running the organisation…'* (SE15);
- Quality of the trainers (SE13); and
- Not enough money to get and offer training (SE4).

In spite of the majority of the participants not describing formal policies or the budget available for training and development, it can be observed that, generally, SEs are giving significant attention to train and develop their staff. These opportunities can, however, be jeopardised by the financial restrictions on the SE, as well as the difficulty on finding the right training programme.

Mission

The concept of mission in this research is studied as the degree to which people share the definition of the organisation's purpose, resulting in the growth of knowledge within the SE. Regarding this element of organisational culture, participants expressed similar experiences, feelings and aspirations of clarifying, maintaining and sharing their mission and vision.

Five participants recognised the importance of having a clear and shared vision and mission. These are some of their comments and experiences:

> *'It's important everyone needs to be knowing what is the direction of travel that we are going in' (SE19);*
>
> *'We have three parts of our philosophy, with which we can really start this up. We don't do any work that doesn't come within our philosophy' (SE9);*
>
> *'We keep our organisation's identity by making sure you keep the values and principles that were in the organisation in the first place. And some key staff. I think … you got to make sure that the shared common vision about why you are doing it, what are you doing it for, so you don't get lost' (SE15);*
>
> *'You have to really believe in what you're doing …. You have to be very resilient and you have to truly believe in what you are doing, because it's actually easy just to put your coat on and say, well I tried and it didn't work' (SE18); and*
>
> *'Clarity in understanding our mission, our goals, and what we expect from each other is critical to our success' (SE1).*

Participants also mentioned some of their strategies to share this vision not only among its members, but also with their volunteers. As participant SE16 expressed it,

> *'Staff and volunteers, when they join, they know they are joining a co-operative organisation and part of their initial training is the induction, is how we will seek to work with our volunteers, how we seek to work with our staff, and indeed, how we work with our customers and clients.' (SE16)*

Yet three participants agreed that there are some possible elements that can jeopardise their shared mission and visions. The causes and the effects of these difficulties are presented in **Table 5.16**.

Table 5.16 - Difficulties on sharing the mission and vision of the SE

Cause / difficulty	Effect	Participant
Getting bigger, and integrating more people into their organisations	*'… as the organisation is getting bigger there is a real challenge to what is the culture of the organisation. And those shared visions, shared norms, how we work with each other.'*	SE15
	'I am well aware that at some point I will be bringing volunteers, and bringing staff, and share those values and ethos and ways of working with other people. And that is challenging … because the values and the ethos is not written down anywhere, they are all in my head'.	SE21
'…really getting the right people working with'	*'If you communicate well with them and they understand from the first time they join you what you are trying to achieve and why you are doing it then, through selection, you will get the right people who will understand and more or less adapt on both sides of the commercial and social challenge, as you need to do so'.*	SE12

In general, participants acknowledged the importance of having a shared mission and vision among the members of their SEs. However, they also recognised that some circumstances, like expansion of services offered, can make it difficult to maintain.

5.2.3 Process Capability (PC)

As was explained in Chapter 3 (Section 3.2.2 Page 71), the process capabilities are the knowledge activities within the organisation that leverage organisational knowledge capabilities. The four knowledge activities analysed in this study and used as probes in the interviews are Acquisition, Conversion, Application and Protection. Additional to the knowledge activities, and in order to comprehend and contextualised them, it is also important to present the types of knowledge managed in these organisations, which is presented in **Table 5.17**.

Consequently, **Table 5.18** and **Table 5.19** illustrate the different knowledge activities associated with tacit and explicit knowledge respectively. The tables explain: the type of knowledge and information held in the SEs; how this knowledge is acquired by the organisations; how it is applied and converted within the operations of the enterprise; and lastly, if relevant, how this knowledge is protected. The number in brackets represents the

number of participants who describe these activities in their SEs. The complete description of knowledge activities described by the 21 participants is presented in Appendix H (Section 4 Page 342).

Table 5.17 - Types of knowledge in SEs

Knowledge	Specific knowledge	Format	Micro	Small	Med.
Tacit					
Organisational knowledge	Business acumen	Experience	X		
	Reputation and experience	Experience		X	
	Member's expertise (fundraising, knowledge of clients groups, enterprise development, delivering programmes)	Verbal / Experience	X	X	
	External experts' knowledge	Verbal / Experience	X		
	SE model concept and strategy	Verbal / Experience	X		
	Memories of failures and successes in the past	Experience		X	
	Key contacts	Experience	X		
	Stories of how the SE has helped people over the years	Experience		X	
	Project experiences	Experience	X	X	
	Enterprise journey	Experience	X		
	Cultural understanding	Experience	X		
	SE criteria, ethos and values	Experience	X		
People / community information	Community people's necessities	Verbal	X	X	X
	History about the community	Verbal		X	
	Participants' experiences	Verbal	X		
Other SEs experiences	Similar experiences	Verbal / Experience	X	X	
Explicit					
Customer / clients information	Client's files	Paper / Electronic / Media	X		
	Number of clients served and type of service offered	Electronic		X	X
	Clients' satisfaction evaluations	Electronic / Paper	X	X	
	Local community bill payment information	Verbal / Paper	X		
	Stakeholder information – contact names – demographic information	Electronic	X	X	
	Clients' social and financial position when starting with SE and when they finish the service	Electronic		X	
Organisational / operational information	Database of existing elderly services	Electronic (online)		X	
	Internal information (project information, financial records, sales information)	Electronic	X	X	
	Business plan, strategic policy, internal policies	Electronic	X	X	
	Information of new services in the area	Paper / Electronic		X	
External information	Policies, legislations, legal requirements (updates)	Paper / Electronic / Verbal	X	X	X
	Funding information	Verbal / Electronic	X	X	
	Sectorial information	Verbal / Electronic	X	X	

	Research and reports	Electronic	X	X	
	Updates of the SE	Electronic / Paper	X		X
Tacit / Explicit					
Organisational knowledge	SE intellectual property	Verbal / Electronic		X	
	Collective knowledge from Community partnership	Verbal / Paper		X	
	Project information	Verbal / Paper/ Electronic	X	X	

Table 5.18 - Activities to manage Tacit Knowledge

Type of tacit knowledge	Acquisition	Conversion	Application	Protection
Organisational knowledge (reputation, expertise, experiences)	- Staff meetings **(4)** - Informally talking and sharing knowledge with other members **(2)** - Talking to younger members of the SE and sharing SE knowledge with them **(2)** - Meeting with professional board / advisory network **(2)** - Employees' expertise meeting **(1)** - Allocating people in different places **(1)** - Recruiting new people and train them up **(1)** - Debriefing people before they leave the SE **(1)** - Training in each other's job **(1)** - Discuss and integrate issues **(1)**	- Meetings minuted **(3)** - Meetings recorded **(1)** - Action plans **(2)** - Enter and store on database **(1)**	- Avoid '*hiatus*' and lose in productivity when a person leaves **(3)** - *Learn from mistakes* **(2)** - Cascade down information **(1)** - Allow members to '*fill in for people*' **(1)**	- Insurance policy if key people of the SE die covering the financial damage of losing their information and knowledge **(1)**
People / community needs (histories)	- Visiting and talking to people in the community **(4)** - Meeting with a Community Partnership **(1)**	- Mapping out where the gaps are in the needs of the community **(1)** - Using and analysing it with '*community participatory research*' **(1)** - Integrate with other sources and produce studies, research and publications **(1)**	- Identify the local needs and define projects base on this **(2)** - Support the organisation in terms of planning strategic development of the community **(1)** - Inform commissioners and get contracts for that **(1)**	
Other SEs experiences	- Visiting other SEs and see how they operate **(4)** - Getting involved in a local partnership working with small scale similar organisation **(1)**		- Identify models of good practice **(3)** - Prevent duplication and ensure targeting the right people **(1)**	

Table 5.19 - Activities to manage Explicit Knowledge

Type of Explicit knowledge	Acquisition	Conversion	Application	Protection
Customer / clients information	- Undertake customer satisfaction surveys and enter on system/record/scan **(7)** - Enter information on database (Excel/online) **(5)** - Capture (scan) using system (EPOS) **(2)** - Capture information from help-line service (telephone/email/free-hand system) **(2)** - Interview customers and enter data on system **(2)** - Capture from application forms **(1)** - Record customer social and financial position before and after the service **(1)** - Scan copyright permissions **(1)** - Record clients' stories (products) **(1)** - Capture community and co-operative information using an online forum **(1)**	- Store on database / system **(15)** - Integrated in report/ studies/ publications/case studies **(10)** - Customer analysis (what they ask/need) **(4)** - Keep track of the process **(4)** - Inform stock allocation **(1)** - Produce and inform community through newsletters **(1)** - Seal to preserve paper copies **(1)**	- Allow the SE to measure / demonstrate social impact **(5)** - Inform *'educated business decisions'* (expansion, relationship with customers) **(2)** - Development of new services **(1)** - Allow the track on objectives **(1)** -Permit the development of marketing / lobbying strategies **(1)** - Improve or change services / products **(1)**	- Data protection policy / Act (information not share externally) **(2)** - Database encrypted **(1)** - Passwords **(1)** - Protocol for access permissions to data **(1)** - Members with CRB checked **(1)**
Organisational / Operational information of the SE	- Enter and keep on laptop/spread-sheets/databases **(9)** - Enter and share information using shared folders / Dropbox / networks / central server / cloud solution / shared diaries **(9)** - Share information and have conversations in meetings (physical or virtual) **(2)** - Share information in internal magazine / newsletters (**2)** - Update and share information externally on Facebook / Twitter / website **(2)** - Share in small groups particular issues **(1)** - Enter in a 'Policy Hub' information about policy and research **(1)** - Capture information directly from clients for consultancy projects **(1)** - Develop a franchise model to capture SE intellectual property **(1)**	- Store in shared server / database / Dropbox **(15)** - Keep track of the process **(3)** - Integrated in report/ studies/ publications/ case studies **(2)** - Organise files by common headings **(1)** - Organise physical documents in folders with list of contents **(1)** - Use as reference guide **(1)** - Design consultancy projects **(1)** - Management of orders **(1)** - Build an organisational and operational manual (1)	- Allow the SE to measure / demonstrate social impact **(2)** - Allow the SE to do stock management and negotiate prices with suppliers **(1)** - Inform decisions to evaluate and improve process **(1)** - Use as a marketing tool to get more clients **(1)** - Allow the SE to '*capitalise the intellectual capital*' **(1)**	- Passwords and security clearance to some information **(1)** - Permission to access specific data **(1)** **-** Protect the trademark **(1)**
Sectorial information	- Capture in associations/networks events, training **(9)** - Capture in associations / networks newsletters **(4)**	- Update with new developments, trends **(5)** - Inform the SE of 'what else is there' **(1)**	- Update and adjust the strategic direction / business plan of the SE **(2)**	

Table 5.19 illustrated that the majority of knowledge and information managed by participants' organisations is explicit, mostly electronic knowledge. However, there are significant tacit elements, such as experience, that are also important factors and competences of the enterprises. Additionally, the majority of this knowledge is acquired but not always applied, converted or protected. These and all the discussions related to knowledge activities and types of knowledge are discussed further in Chapter 6.

In relation to knowledge activities, participants also mentioned some difficulties and barriers faced when managing their knowledge. These difficulties are presented in **Figure 5.7**. Appendix H (Section 5 Page 352) present the complete list of comments associated with each difficulty.

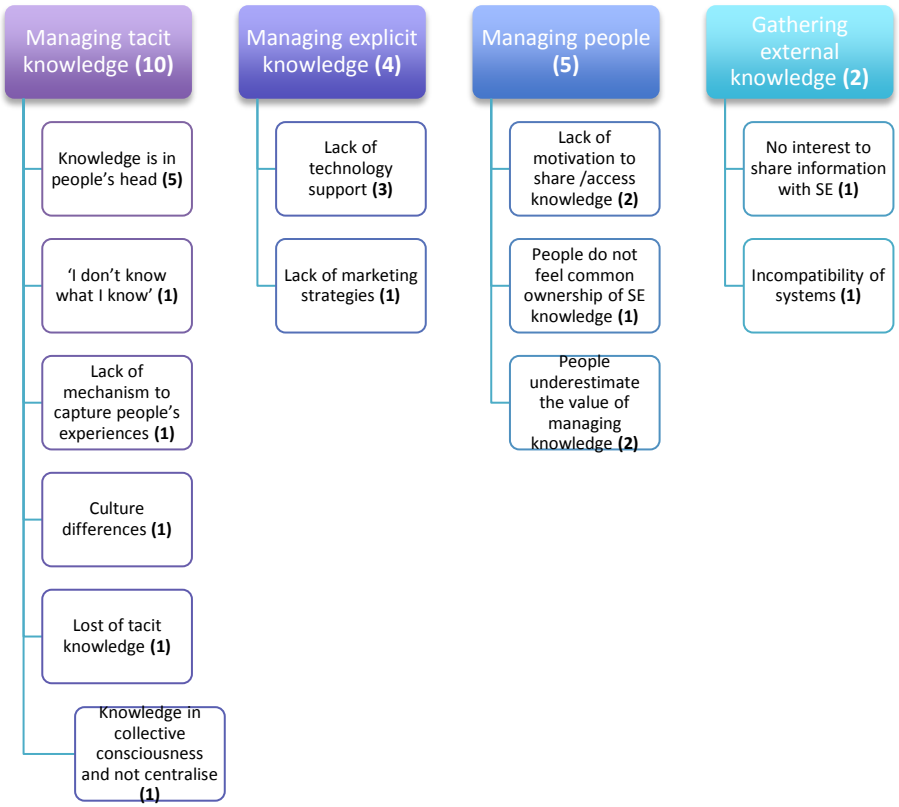


Figure 5.7 - Difficulties in managing knowledge

5.2.4 Organisational Performance of Social Enterprises

As was explained in Chapter 3 (Section 3.2.3 Page 80), it is necessary to measure performance in SEs in order to access more accurately the impact of developing KMCs through the KMC-SE Conceptual Model. Nine variables were included in the conceptual model to assess SE performance: **creation of social/environmental value, income, expenditure, introduction of new products, workforce, consumer and stakeholder satisfaction, teamwork, and ability to deal with change**. These variables were assessed in the quantitative phase of this research in order to evaluate, through the statistical analysis, the relationship and correlation with the KM capabilities.

The purpose of the qualitative phase was not to find relationships or measure causalities. Thus, the element 'Organisational Performance' was evaluated within the interviews, not only as the general performance of the enterprises, but more importantly, as the impact that managing their knowledge has had on their performances.

An additional element named 'Legitimacy' was also included as an inductive code. This represents the degree to which SEs legitimised themselves, improving with this their performance and gaining advantages in the market.

This section starts with a general description of SEs' performances based on participants' comments to each of the nine variables mentioned above. This is followed by a more detailed report of how organisational elements and knowledge activities have affected the performance of their SEs.

5.2.4.1 General organisational performance of SEs:

In terms of creation of social/environmental value, three participants recognised that their SEs are improving their social impact significantly in the last year. Their measures of this impact were: job outcomes (SE8), number of service users who were trained and now are in professional positions (SE10), and improvement in learner's aspirations and creative capabilities (SE9). In the case of SE10, his SEs was recognised as one of the 'Top 10 of UK SEs with the greatest social impact in 2011'.

The improvement has also been reflected in income, more specifically, number of clients, as was explained by SE5, and acceptance of investment capital from universities to become partners, as it is the case of SE12. In general, seven participants were optimistic about increasing the income and profit of their SEs in the following years. Nevertheless, seven other participants confessed that there are certain difficulties that impede them from increasing their income. These difficulties were associated with current economic climate, government austerity policies, getting capital for investment and keeping constant revenue.

Two other participants recognised the difficulties added by the current (2012) economic climate, but, at the same time, were optimistic about how their SEs can survive this. As SE15 explained it: '… *part of being an enterprise in this sector is you take the blows to the chin and you get back up and start going again.'*

In terms of expenditure, some participants mentioned plans for the expansion of their premises (SE20). However, two other participants recognised that their SEs are looking at trying to '*use money smarter',* not having a wage rise for more than five years (SE15) and by cutting their own salaries (SE3).

Another measure of performance is the introduction of new products. Six participants described projects and plans for their SEs to create and introduce new products/services into the market. These are some examples:

- SE19 is looking to develop their own beauty products to be used in their well-being centre;
- SE5 is looking at different innovative ways to expand;
- SE13 is developing an innovative project to engage with employment; and
- SE10 is doing things other organisations are not doing by extending services to people who are not currently getting services.

The number of employees, which is also a measure of performance, was described by four participants to be increasing, not only the employee base but also the volunteer base. Other participants, on the other hand, have experienced some difficulties in their SEs to increase their employee base, either because they do not have the resources, as SE3, or because they cannot keep the people their currently have, as SE6 explained. Participants SE2 and SE8 did not consider increasing or reducing the number of employees to have an impact on their organisations, as SE3 expressed it *'… We will carry on one way or another'.*

In relation to customers' and stakeholders' satisfaction, **Table 5.19** illustrated a significant number of activities undertaken by SEs with regard to their perceived and identified customer and stakeholder satisfactions. Four participants mentioned having received positive feedback from their customers.

The measure teamwork, which represents the ability of the SE to coordinate efforts, was described by participants positively. Three participants recognised that '*everyone is quite supportive of each other'* (SE19), '*..we enjoy working together and we see the results being achieved with quite a tough client group'* (SE15) and, '*generally speaking, we try to work as a team, it's quite a close feeling'* (SE17).

The measure of ability to deal with change was described by participants as an essential competency of their SEs. As SE11 expressed it '*I think that as long as we continue with our planning activities, [we must] continue to make sure that we are flexible enough to take on changes, I think we can still be here in the future.' (SE11).*

Lastly, legitimacy was included as an inductive code in this analysis. This is because participants were constantly referring to the importance of legitimising their organisation and getting advantages in the market and improving performance with this. This legitimacy was described by six participants in terms of awards, as benchmarking examples in the sector or reputation.

5.2.4.2 Impact of KMCs on organisational performance of SEs:

As was explained at the beginning of this section, the qualitative analysis of organisational performance of participants' enterprises included, apart from the general performance of the SEs, the impact on performance perceived by managing their knowledge.

Participants identified some of the elements of performance, such as income, introduction of new products, consumer satisfaction and legitimacy, to be influenced significantly by how they manage their knowledge. For instance, in terms of income, some participants recognised different ways of increasing it through KM. These are some of their strategies:

- Collecting relevant data and communicate that to the commissioners then, '*because we provide the initial information, we were able to win the tender'* (SE10);
- Capitalising their intellectual property by developing and selling manuals and books about their 'unique way of working' (SE10);
- Franchising their SE model (SE19); and
- 'Driving people into our commercial element' by sharing knowledge in networks (SE19).

In relation to the introduction of new products, or being more innovative, three participants recognised that, by capturing knowledge from their communities, they can develop new products and services that are more relevant and with real impact. By sharing knowledge with customers, participants also described improving their customers' satisfaction. As SE16 expressed it:

> *'We work co-operatively with our clients as well … We try to keep people involved and most people respond to that.' (SE16)*

Lastly, probably the most important element of organisational performance that was positively influenced by the effective management of their knowledge was legitimacy. As participants described, elements such as credibility and reputation were gained by managing SEs' knowledge. These are their comments:

> *'I think by having a more coherent system of case studies of reporting, evaluating what we do and putting that out there, I think that would build our credibility.' (SE7)*

> *'…. having the knowledge, having the evidence based research, having them published and speaking out they gave credibility and depth to what I have to say which I wouldn't had without that.' (SE1)*

> *'I don't think we have a coherent way of understanding how to value that knowledge. I think it is very much, a lot of it, is about the reputational stuff, if we do a good job, if we get feedback for our clients, and that give us the sense we are on the right track.' (SE7)*

> *'I think my plan is to kind of produce a set of a brief social impact report …and that would be shared online and could be given to clients as a bit of promotional material, or marketing material.' (SE14)*

> *'…we need to use that information to actually grow the business base if you like; it's evidence of what's been done, to prove to people what we can do. ' (SE13)*

Participant SE15 has accepted that there is an opportunity for his SEs to improve their performance if they used their knowledge effectively. As he explained:

> *'…actually some of the real good stuff that goes on there at those levels isn't recorded in any coherent way and isn't fed back to politicians. ….. they [project leaders] are recognising that there is an issue about gathering that data to get politicians, you know, local and nationally about all the stories we've got. We have some very positive outcomes with limited resources. And we see other organisations who get quite large resources achieve less outcomes.' (SE15)*

5.2.5 Contextual dimensions

The KMC-SE Conceptual Model developed in Chapter 3 proposed the inclusion of certain contextual dimensions that permit a better understanding of current organisational characteristics and knowledge activities in SEs. In Phase 2, participants referred to some of these dimensions, emphasising the importance of external support received by the SE.

All participants, without exception, described some type of support they had received from associations, government, SE networks, other networks, other organisations, or other SEs. The length and type of support received by participants has been covered and explained in the previous sections. Thus, this section will emphasise the different type of organisations or institutions supporting SEs and the main value added by these. The complete list of organisations, networks and associations that are supporting the SEs of the 21 participants of this study are listed in **Table 5.20**.

Table 5.20 - List of associations, networks, government institutions and other organisations supporting SEs

Type	Name
Associations and other networks	Art Business Cymru Association of British Credit Unions Birmingham Chamber of Commerce Birmingham Chamber of Commerce British Association of Counselling and Psychotherapy (BACP) Business in the Community (ARC programme) Charity retail association Co-operatives UK Croydon Common Programme for SEs Federation of Small Business (FSB) Furniture Re-use Network (FRN) Health and Social Care Network – Voscur Independent Publishers Guild (IPG) Islington Forum Local Chapter of the Business Network International (BNI) National Survivor User Network (NSUN) Self Help Housing UK network of sex work projects (UKNSWP) Wakefield and District Housing (WDH) York Council for Voluntary Service Yorkshire Forum of Credit Unions
SE Networks	Guardian SE network LAC SE network Local SE network (Llanhileth Gwent) North East SE partnership Plymouth SE network RSA SE network SE London SE network Wales (Wales Co-operative centre) SE UK SE West Midlands network Spotlight project (RSA) Wales Council for Voluntary Action (WCVA) York SE network
Government Institutions	Community First Sheffield City Council and Leeds City Council Welsh SE Coalition
Other SEs and organisations	Accounting firms Aston University and Wolverhampton University Charity Shared Voices Other local SEs Other SEs Partnership Small charities Start-up enterprises

Each participant described the main value obtained by belonging to SE networks, associations, or by government or other organisations support. **Figure 5.8** illustrates the different support received by each of these entities. The complete table describing the specific support received by each of the organisations/networks/associations is presented in Appendix H (Section 6 Page 353).

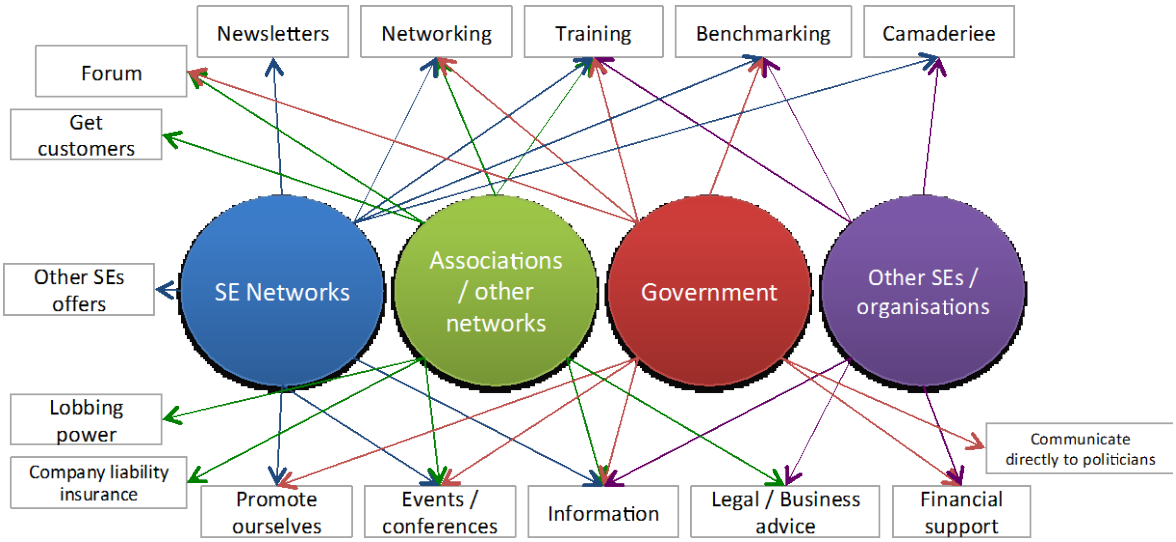


Figure 5.8 - Type of external support received by SEs

Starting with SE networks, **Figure 5.8** illustrates how these are an important source of information and knowledge to participants. These networks allow SEs to interact with other, similar enterprises, share experiences and keep updated in the latest events in the sector.

Nonetheless, some participants recognised the lack of involvement, from their side, to work more with SE networks. This is the case of SE5, who mentioned: *'… we have not yet got involved with the local network for social enterprises'*. Concurring with SE5, SE6 reflected in her relationship with SE networks:

> *'We are very passive users, so we receive their emails, bulletins and newsletters but we haven't really tapped in to their expertise or knowledge that perhaps they might be able to provide.' (SE6)*

Similar to SE networks, participants described some of the value obtained by belonging to associations and other type of networks, which were mainly sectorial associations and networks. These associations provide more specific knowledge to SEs, which support their social and economic activities.

As was the case of SE networks, two participants recognised that their SEs are not very active in these associations and networks. As SE17 *'…we are not terribly active in the co-operative movement, as a co-operative I'm afraid'*.

Government institutions and other SEs offered similar inputs to the researched SEs, related mainly to access to information about funding and sectorial trends, as well as training. These two groups of organisations were the only ones offering financial support to SEs. This support was mainly from private companies offering assistance through Corporate Responsibility programmes, or government funding opportunities.

The most concurrent support received by SEs from these organisations/networks/associations was information, training and networking opportunities. The information received is illustrated in **Figure 5.9**. The number in brackets represents the number of participants reporting that element. It was noted that some of the training was related to community development, SE management, business issues, social media and equal opportunity.

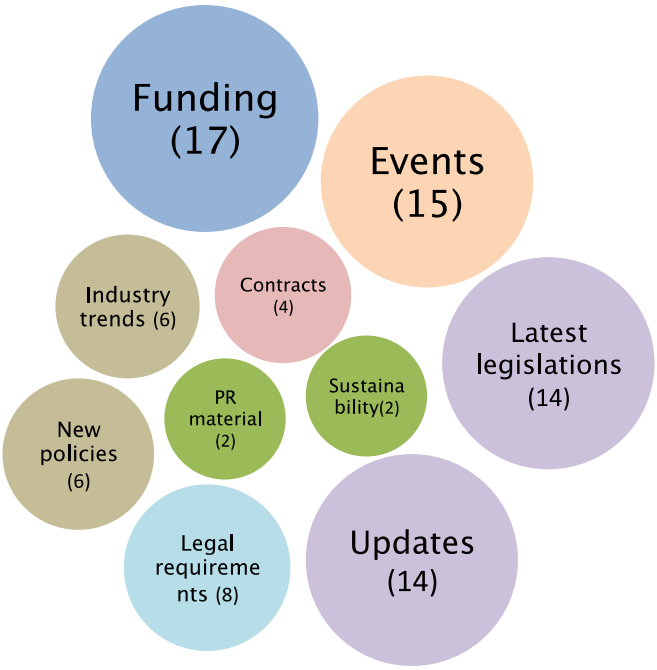


Figure 5.9 – Information received by SEs from external sources

One of the main outcomes of receiving support and sharing knowledge with other enterprises has been explained by SE4 and SE20 as:

> *'I think, we, as organisations, tend to operate very much in our own bubble and it is very easy not to look at things with an open mind and do things because we have always done it that way and we never have the opportunity to stand back and look at things more objectively. So whenever I go to visit other Credit Unions or other Credit Unions come and visit us there is always some positive impact and there are always things we can do differently or we can do better. On these sort of visits, we always pick something up.' (SE4)*

> *'I hadn't had any experience with that [fear of sharing knowledge with other organisations], obviously there is a worry that this might happen, that you have a good idea and somebody else wants to take it on, but I think in our own local area, we've got very, very, good arrangements with the people, so we do share information and we support each other. So I would say it's a very supportive environment, we don't worry too much about that.' (SE20)*

Participants mentioned interesting experiences of sharing knowledge and resources with other enterprises. SE2 and SE20 described their stories as:

> *'… national charity working with homeless people and they need support or they need help then we would work with them, and we would provide furniture to them or we will supply clothing to them or whatever it is. In return, they would refer to us people who*

need other help that isn't around homelessness but maybe it is for debt or general counselling or educational services or all sort of things, which we provide as our charitable work.' (SE2)

'I approached VINCI Construction UK limited, who are the largest construction company in Europe, I think. And they were working in a big school building quite close by, and I asked them to come in and do the make-over, we've already received some paint from Dulux. But it was going to be a make-over with a difference and they trained up homeless young people to develop their decorating and carpentry skills and then we had a re-launch with the Assembly Minister for Technology at the Business Centre. The Managing Director of VINCI said that they would launch the programme around the country, if it was a success.' (SE20)

Overall, it can be observed the important role of external organisations and networks in providing knowledge and information to the SEs that can influence their performance. The relevance of this knowledge and the way SEs use it are discussed in more detail in Chapter 6.

5.3 Conclusions of Chapter 5

The empirical data collected in this research were analysed in this chapter, following the data analysis methodologies proposed in Chapter 4 for Phase 1 (Section 4.3.1.3 Page 112) and Phase 2 (Section 4.3.2.3 Page 124). The analyses permitted the empirical assessment of the KMC-SE Conceptual Model developed in Chapter 3, which addresses the second objective of this study.

The quantitative phase was set to assess how the empirical data collected from 432 members of SEs in UK fitted the hypothesised KMC-SE Conceptual Model. A demographic analysis of the sample confirmed how the sample followed similar patterns already identified in government statistics about SEs (Villeneuve-Smith, 2010). This provides a more accurate representation of the population.

The KMC-SE Conceptual Model was assessed with SEM, EFA and CFA analyses. These resulted in some changes to the original conceptual model, such as, integrating collaboration and trust variables, and eliminating the variable T-shaped skills, Technology, Extrinsic Motivation, Protection and the item associated with innovation from OP. The final complete measurement model fit the data very well as evidence by the CFI of 0.904 and RMSEA of 0.055. This model was then assessed with SEM, including the initial hypothesised relationships proposed in Chapter 3. The final SEM model accepted eleven hypotheses from twenty-one, with six hypotheses not supported and four created as alternative hypotheses. The most revealing finding was the mediating, or indirect, effect of Organisational Capability (OC) in Organisational Performance (OP) through its effect on Process Capability (PC). This

demonstrated that the initial hypothesised KMC-SE Conceptual Model established in Chapter 3 was not explaining the real experiences and practices undertaken by SEs in UK.

All these findings, in combination with further descriptive and comparative statistics of the variables of the model, resulted in elements that required further explanation and understanding in the context of SEs. This was the purpose of Phase 2, which was a qualitative study based on 21 interviews to participants on Phase 1.

The qualitative phase provided an extended understanding of the different characteristics of SEs regarding their current development of KMCs. Following a coding strategy, each element of the KMC-SE Conceptual Model was studied, resulting in a greater understanding of the quantitative findings based on examples, experiences and opinions of participants.

Regarding the organisational capability, it was confirmed how SEs exhibit cultures driven by collaboration, trust, learning, development and a shared mission, with people intrinsically motivated to work and share knowledge in the SE. Moreover, the tendency for SEs to maintain flatter organisational structures, providing opportunities for members and stakeholders to participate in decision-making in the SE, and supporting active communication channels, was recognised. Although in Phase 1 technology was found not to developed OC, interviews suggested that SEs are aware of the importance of using IT to support their processes and were developing initial strategies towards more use of it.

In relation to knowledge activities, participants explained several mechanisms, processes and activities that support the management of knowledge within and outside the SE. Nevertheless, it was also evident that SEs were mainly acquiring knowledge from internal and external sources, but that knowledge was not always converted, used or protected.

Another important finding from the qualitative phase was the relevance of external sources in developing KMCs in SEs. Participants specified clear examples and experiences where SEs' organisational performance, and social and economic objectives, were enhanced by applying knowledge from external sources.

Taking into consideration the main findings from both quantitative and qualitative studies, the following chapter discusses the complementary analysis of both phases, including the KM and SE literature explored in Chapter 2 and 3. This results in a model considering the development of KMCs in SEs.

Chapter 6

Discussion

The previous chapter presented an extensive analysis of data collected in Phase 1 and Phase 2 regarding current practices and experiences of the development of Knowledge Management Capabilities (KMCs) in SEs. In analysing the data, the study assessed each variable of the KMC-SE Conceptual Model as developed in Chapter 3, with a variety of statistical analysis and experiential interpretation within the studied enterprises. This chapter conducts an analysis connecting both quantitative and qualitative phases in order (a) to assess empirically the KMC-SE Conceptual Model, and (b) to develop a final model of KMC development in SEs based on this assessment. These will achieve the second and third objectives of this study.

Section 6.1 presents the assessment of the KMC-SE Conceptual Model based on the complementary analysis of both phases of this research, supported with KM and SE literature. This analysis provides a discussion of the different elements that develop KMCs in SEs and their associated implications, leading to the development of an assessed model in Section 6.2.

6.1 Assessment of the KMC-SE Conceptual Model

In order to validate the KMC-SE (Knowledge Management Capabilities in Social Enterprises) Conceptual Model, both quantitative and qualitative studies assessed the theoretical assumptions developed in Chapter 3 with the current and real experiences of SEs. Section 6.1, therefore, draws upon the obtained SEM (Structural Equation Modelling) Final Model explained in Chapter 5 (Section 5.1.4 Page 145) and the follow-up interpretation of experiences expressed by members of SEs analysed in Chapter 5 (Section 5.2 Page 150). Section 6.1.1 onwards discusses and validates the implication of the empirical findings with regard to the current KM and SE literature for each element of the KMC-SE Conceptual Model. Detailed examples from Phase 2 are presented throughout the section to support the analysis. This section will accomplish the second objective of this study and will set the foundation for the development of the empirically evaluated model in Section 6.2.

6.1.1 Organisational Capability (OC)

Literature presented in Chapter 2 and Chapter 3 has supported the argument that particular organisational conditions, attitudes and decisions are believed to be crucial for the effective management of knowledge in organisations, and thus, the development of KMCs (see Chapter 3 Section 3.2.1 Page 51). These conditions are the culture, people, structure and technology of the enterprise. Accordingly, hypotheses were developed that theorised a positive relationship between each organisational condition and the development of the organisational capability (OC) in SEs. In this section, each of these organisational conditions that result in developing KMCs in SEs will be discussed and supported by the empirical findings, and KM and SE literature.

6.1.1.1 Technology

Technology is the first variable to be analysed from the OC because its findings in SEs, both in qualitative and quantitative studies, suggested some differences from the current literature relating technology with KM.

Drawing upon the discussion presented in Chapter 3 (Section 3.2.1.1 Page 51), two hypotheses were developed. One hypothesis suggested a positive relationship between 'Technology' and the development of OC. The second hypothesised that there was no relationship between these two elements. As was demonstrated in the quantitative study (Section 5.1.3.6 Page 141), the second hypothesis was accepted (factor loading of Technology = 0.42), demonstrating that technology did not have an influence in developing OC in SEs.

This finding concurred with previous empirical studies that identified, both in large companies and SMEs, how technology does not support the development of KMCs on its own (Lee and Choi, 2003; Chuang, 2004; Gholipour *et al.*, 2010; Mills and Smith, 2011; Susanty *et al.*, 2012; Romero-Artigas *et al.*, 2013). A possible reason is because technology is easily replicated and imitated, and thus does not support the development of competitive advantages (Leonard-Barton, 1995; Chuang, 2004). Another reason may be that the contribution of IT on KMCs can be indirect through their impact on other factors (Mills and Smith, 2011), suggesting that IT can be conditioned by other influences, such as, cultural and human (Lee and Choi, 2003). A third possible explanation is that SEs, as small organisations, lack the knowledge about how to use technology to improve their business performance (Gholipour *et al.*, 2010; Susanty *et al.*, 2012; Romero-Artigas *et al.*, 2013).

To explain further why technology did not support the development of KMCs in SEs, the following discussions integrate the findings from both the quantitative and qualitative phases. This allows the understanding of current IT support in managing knowledge in SEs. The four activities regarding IT support, measured in Phase 1, provide the structure for the following discussion:

IT supporting collaboration work among enterprise members of SEs

Respondents in Phase 1 assessed this activity as the least commonly supported by IT in their SEs (Mean = 3.6). However, when discussing this element with participants in Phase 2, more than half of them described having IT systems that facilitate, in some way, collaboration and knowledge sharing among employees. These systems were primarily online cloud solutions, such as Dropbox and Google Docs, and centralised shared servers.

Considering cloud solutions, it was identified that only micro enterprises, with less than 10 employees, were using them. These were used mainly to facilitate the access to information and share files and information with other members of the SE, who, in some cases, did not share an office space and worked remotely. Therefore, these solutions, combined with the use of email and Skype, which is a video internet-mediated system, were crucial for the operation of the SE and communication among its members.

Example 1: SE11

The Social Enterprise of participant SE11 is a community-focussed SE that uses the arts to transform and regenerate communities. This is obtained by developing educational and training programmes that offer arts practice using digital storytelling methodology in action. This allows communities to have a voice and be able to share their experiences.

With only three members, the SE employs a significant number of free-lance people, who provide different activities for the SE. These people need to be connected with the SE, but, because they are not formal members, they do not have access to the internal network. Thus, the Director decided to use Google applications, such as, **Google Docs** and **Google Calendar** to share information with them. These applications are free and can be accessed from any computer with Internet. This has improved not only the communication with free-lance, but also it allowed the three members of the SE to access information from outside their offices. As the Director explained:

> *'… if we are out doing project work, this is where the Google docs and Calendar becomes really handy because you just have to be part of a network. You are an extended information pool as well.' (SE11)*

Cloud solutions were definitely supporting members of the SEs to work collaboratively and sharing knowledge and information, concurring with similar findings in SMEs by Wee and Chua (2013).

In relation to centralised shared servers, both micro and small organisations were using them. The main purposes of these servers were centrally storing and securely backing-up organisational information, and allowing their retrieval. As some participants described, their shared servers were also an important way of communicating the organisational mission and vision (see Appendix H Section 7 Page 331).

However, these servers did not always facilitate the interaction among members of the SE, resulting in a more one-way relationship. Enterprise managers communicated the organisational policies, rules and procedures by uploading the files on the share server. Members were storing and retrieving the information required for their work. Still, managers were not accessing, validating and commenting on operational information, nor members reviewing and evaluating the organisational information shared by managers, or other members.

Example 2: SE6

The Social Enterprise of participant SE6 is a consultancy company with twelve employees that provides public engagement services to the public sector and housing associations. The SE helps organisations to engage with communities to explore complex challenges and create actions to improve wellbeing and the organisation's services.

Recently, the SE introduced a **shared server** that permits all members to share the same files. The information is organised by headings that everybody shares, such as, policy and research. Although the CEO considers that the server is working, she accepts that people have still some issues on sharing information and knowledge through the server. As she explained it:

> *'People, I think, are still bit nervous to get poking in a folder that they are not really familiar with. I think people don't quite feel that everything there it is in common ownership. So, it's not perfect yet. There is probably quite a lot of duplication between different folders because people call things different things and store it in different places.' (SE6)*

As Example 2 demonstrates, issues of ownership and trust were involved in discouraging members of the SE to share their information and access other members' information. This finding corroborates the results obtained in Phase 1 and the empirical evidence on SMEs presented by Nunes *et al.* (2006). It is demonstrated that, even if centralised shared servers offer an opportunity to facilitate knowledge sharing among members, it is still required to integrate a collaborative and trustful culture in the equation.

IT supporting communication involving the enterprise

This activity was identified as the third most commonly provided by IT in Phase 1 (Mean = 3.8). When conversing with participants in Phase 2, they mentioned how IT solutions, such as, websites and 'Web 2.0' solutions (O'Reilly, 2009), such as, Facebook, Twitter, LinkedIn and Blogs, were supporting their communication with customers, stakeholders and general public.

Regarding websites, these were described as one of the main ways of sharing information with the community and general public (SE21). In the case of SE3, the website permitted them to (see Appendix H Section 7 Page 356):

- *Collect information* about housing, support and care services;
- *Share information* and tools efficiently with other professionals and agencies;

- Supporting and encourage partnerships to improve housing advice for older people; and
- *Raise the profile* of the SE amongst its peers.

As was found in small firms (Gray, 2006), SEs are taking advantage of the Internet. It offers significant opportunities for improving communications and rapid access to relevant and timely information, therefore facilitating knowledge sharing and acquisition.

The second group of technology supporting communications in SEs was 'Web 2.0' solutions, such as, Facebook, Twitter and LinkedIn. These help SEs to make available information about advisory network meetings (SE8), product/services (SE19) and promoting the work of the SE (SE19 and SE21).

The reasons for using this type of technology to communicate externally concurred with the reasons identified by Jackson (2010) in his empirical study to evaluate the impact of Web 2.0 in knowledge capture. Web 2.0 solutions are very cheap and simple to use, with low barriers to entry, accommodate many forms of media, the information can be updated and shared with immediate effect, and users can structure and describe it using 'tags'.

Despite some SEs mentioning not using social media, overall, participants recognised the importance of incorporating social media in their communication strategies and expressed plans to implement this soon. That is why various participants described having social media training as a priority in their training base.

IT supporting retrieving and storing necessary information

These two activities were identified as the most commonly provided by IT in Phase 1 (Retrieving Mean = 3.8, Storing Mean = 3.9). Participants in Phase 2 explained that, apart from supporting some collaboration activities, centralised shared servers, cloud solutions and databases were also mechanisms employed to keep and secure the information of the organisation for further use in its operation.

As was discussed in the previous sections, one of the main uses of technology in SEs is to retrieve and store information. The use of centralised shared servers, cloud solutions and databases were described as the mechanisms to keep and secure the information of the organisation for further use in its operation.

Concerning centralised shared servers, as described in the previous sections, participants explained that these servers were used to store all the information related to the operation of the SE, such as costumers, products and service information, procedures and policies. This

information is backed-up regularly and, in some cases, these servers have online applications that allow a real-time, secured back-up of their information.

Cloud solutions were also used by SEs to store and retrieve information. As was discussed before, these applications were very common in micro SEs that normally do not have a designated office space. Members do not have available space to store physical information, relying more on virtual resources. Moreover, the information needs to be available to other members of the SE, not through a corporate network, but through the Internet. This allows members of the SE to work remotely without jeopardising the work and operation of the SE.

Other micro SEs, such as SE8, SE9 and SE14, on the other hand, do not use cloud solutions or shared servers to store information, using their laptops instead. This results in some risk for SEs, as SE9 expressed it:

> *'Well, everything, all that data, all that communication, all of that goes to my laptop, basically and my head, all of it. My laptop is, if I didn't have it, I think I would just be unable to function.' (SE9)*

Participants recognised this risk of losing the SE information, and also for the information to be used inappropriately by other people, and declared that their SEs were looking for more IT solutions, such as cloud to store their information.

Lastly, databases were the most common system described by participants to manage their knowledge and information. These databases ranged from normal Excel spread-sheets to more sophisticated software, some of them in-house-designed. Excel was used by seven participants from both micro and small enterprises to keep record of customers, finances, sales and stock. This system was easy to use by members of the SE to record, store and retrieve information.

Concerning the more sophisticated software, five participants described systems that support specific areas of the organisations, such as customer record management systems, sales systems and accounting software. These were all used by small and medium size enterprises and were inexpensive commercial software (see **Table 5.10** Page 155).

The other type of system used by SEs was 'in-house' developed databases. These were more sophisticated and complex programmes that were designed, or are continually re-designed, by members of the SE based on their experience, requirements and necessities of their work. This was the case of SE3, SE10 and SE17, all small enterprises.

The use of these 'in-house' developed databases was beneficial to the SEs, who very proudly described their systems. These findings concurred with empirical studies in small firms (Lim and Klobas, 2000; Maguire *et al.*, 2007). These studies argued that small firms prefer to design

their own systems because it can suit their environments. Equally, the software offered in the market is normally too expensive and not appropriate to their characteristics and processes. However, there is a disadvantage in using these customised developments. In-house designs can result in incompatibilities with other systems of suppliers or distributors, risking the accurate and effective movement of information across the supply chain (SE17).

Another technology system used by SEs to acquire information was SurveyMonkey, which is an Internet-based, survey data collection programme. This solution was used by two micro-consultancy SEs, SE8 and SE14, to gather information about their clients and to receive feedback on their services/products. This corroborates the increasing use of Internet solutions by SEs to manage their knowledge and information.

In general, all participants were using some kind of technology to store, acquire and retrieve information in their SEs. Some were using more basic systems, like Excel, but were aware of the need of more sophisticated software, such as customer relationship management systems, that would improve their performance.

Generally, participants acknowledge the importance of, and the need for, technology in their enterprises, with some participants accepting that *'… whenever possible, if we can afford it, we would use the technology that is available to put in systems and processes to do that'* (SE2). This more technology-orientated attitude contrasted with the findings of Reilly (2009) in not-for-profit organisations. He found that this type of enterprise was reluctant to rely too heavily on technology for communications and knowledge sharing, mainly because they feel that technology disassociates them with the people with whom they are trying to engage. As was demonstrated by this research, SEs are looking at ways of improving their communication with stakeholders as well, which would result in increasing their social impact. But, different from not-for-profit organisations, they recognised that a good way of improving this communications is by using more technology, such as information systems and social media solutions.

Similarly, recognising that the SEs studied were all micro, small and medium enterprise, these findings can be compared with previous studies in private SMEs. Desouza and Awazu (2006) proposed that technology was never used as a means to manage knowledge because the use of technology in SMEs was limited to acts of automation and informative purposes. In the case of SEs, although they were using technology to support some processes of storing and retrieving knowledge and information, there is still a lack of IT support to facilitate their ability to move throughout the enterprise. Thus, SEs required more IT support to help the development of OC.

The possible impediments for SEs to support themselves more on IT solutions can be linked to economic and human constraints. Some impediments expressed by participants concurred with previous studies in non-profit organisations (Hume and Hume, 2008) and SMEs (Lim and Klobas, 2000; McAdam and Reid, 2001; OECD, 2002; Wong and Aspinwall, 2004; Wong, 2005; Maguire *et al.*, 2007; Chan and Chee-Kwong, 2008; Wolcott *et al.*, 2008). These are presented in **Figure 6.1**.

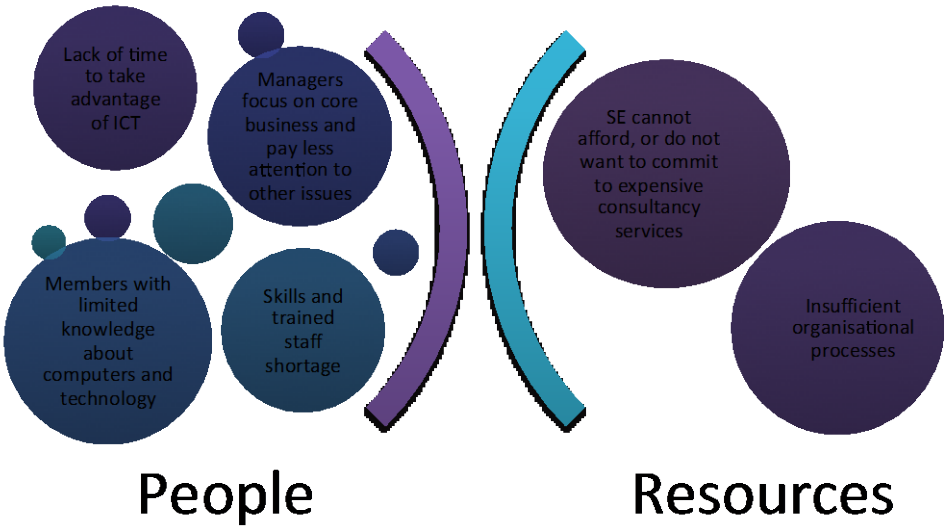


Figure 6.1 – Impediments for SEs to access IT support

Overall, the quantitative findings supported the hypothesis that there is no relationship between 'Technology' and OC. This was corroborated by the qualitative findings. However, the interviewees suggested the development of a new perspective about this discovery. Although participants of Phase 2 agreed that their organisations did not have robust IT systems to support fully their management of knowledge, it was evident that they were aware of the importance of using more technology and were taking some actions towards that. This may indicate that, for future studies, it would be expected that this variable could have a more active role in the development of OC and KMCs.

6.1.1.2 People

The second variable to be explored and discussed is 'People', integrated by 'T-shaped skill', 'Extrinsic Motivation' and 'Intrinsic Motivation'. As happened with 'Technology', the quantitative phase resulted in two out of three components of this variable having no significant relationship with the development of OC in SEs.

If technology permits organisational knowledge to move through the enterprise, it is actually people, the enterprise members, who decide when and what knowledge is shared and

transferred. Therefore, as was explained in Chapter 3 (Section 3.2.1.2 Page 55), it is the willingness of these members to share knowledge that would determine the effective management of knowledge within the organisation. This willingness has been associated with specific skills, T-shaped skills, and motivations, extrinsic and intrinsic.

As discussed in Chapter 3 (Section 3.2.1.2 Page 55), the literature and previous empirical studies suggested that specific skills named **'T-shaped' skills** can influence the creation and integration of knowledge in an enterprise. Consequently, an hypothesis was developed and tested, which suggested a positive relationship between 'T-shaped skills' and OC. As was demonstrated with the quantitative analysis, this hypothesis was rejected (factor loading of T-shaped skills = 0.25).

This finding concurred with the second group of four empirical papers listed in **Table 3.3** (Chapter 3, Page 57) (Lee and Choi, 2003; Lee and Lee, 2007; Nguyen *et al.*, 2009; Susanty *et al.*, 2012). Among the possible explanations of this outcome, it has been suggested that T-shaped skills are not crucial elements of successful knowledge creation themselves. However, it is the systemic management of these skills that actually break down traditional corporate hierarchy and encourage people to share knowledge (Lee and Choi, 2003). Thus, it is the organisation's ability to manage employees with T-shaped skills that can influence knowledge creation.

Attributing this non-relationship to more contextual and particular factors, Susanty *et al.* (2012) admitted that a possible reason is because members of small firms have similar skills and do not have other skills that would allow them to share knowledge with other members. Similarly, Nguyen *et al.* (2009) recognised that cultural characteristics of the Vietnamese people, such as lack of effective team working, may be the reason why members cannot developed such skills.

For the specific case of SEs in this study, the empirical evidence, both quantitative and qualitative, suggested an explanation similar to the one offered by Lee and Choi (2003). Although respondents in Phase 1 suggested being specialised in their own area (Mean = 4.2), and, at the same time, communicate well with other members (Mean = 4.0), these possible T-shaped skills in members were not developing OC in SEs.

Overall, SEs are micro and small size enterprises organised generally with less formality and without rigid structures, as was evidenced in Chapter 5 (Section 5.2.2.1 Page 152). Communications between the various parts of the SE, and between members in the same and in different areas, are frequent and effective. Thus, it is not unusual for members at various levels to be willing and able to multi-task across different areas, as was identified in the qualitative phase. Consequently, such employees are used to frequent interaction, and are

able to communicate with and understand the task areas of others (see Appendix H Section 7 Page 356). This exemplifies clearly why respondents indicate that their members possess 'T-shaped skills'. However, it can also be recognised that the appearance of these skills is a result of the particular organisational structures and cultures of SEs. Hence, even if members of SEs have 'T-shaped skills', it is actually their decentralised structures and culture of knowledge sharing that support the development of OC in SEs.

As Hansen and von Oetinger (2001) suggested, effective employees with 'T-shaped skills' will benefit mostly large corporations, where operating units have been granted considerable autonomy. This justifies why SEs, which are generally micro and small organisations, did not develop OC through 'T-shaped skills', even though they have members with such skills. This relates back to the organisational structures of SEs, which are flatter and not organised by autonomous operational units.

The second element studied in relation to the element 'People' was motivation as a measure of the willingness of people to share, create and integrate knowledge. As was explained in Chapter 3 (Section 3.2.1.2 Page 55), two modes of motivation that facilitate knowledge sharing and transfer, namely, extrinsic and intrinsic motivation, have been commonly defined and empirically studied in the literature.

Drawing upon the empirical evidence described in Chapter 3 (see **Table 3.3** Page 57) and the recognition of members' motivation as one of the most important factors of success in SEs (Sharir and Lerner, 2006; Ohana and Meyer, 2010), the variable motivation, both extrinsic and intrinsic, was included in the KMC-SE Conceptual Model and hypothesised to have a positive influence on the development of OC in SEs.

The empirical analysis in Chapter 5 (Section 5.1.3.6 Page 141) suggested that only intrinsic motivation has an influence on developing OC, becoming the only indicator of the variable 'People' to be included in the evaluated KMC-SE Model. It is then important to discuss this finding and validate it with the explanatory information collected in the qualitative study.

Extrinsic motivation (EM) was assessed in this study by the degree to which members believe they can have extrinsic incentives by sharing knowledge, 'rewards'; and the degree to which they believe this can improve mutual relationships with others through their knowledge sharing, 'reciprocity'. As is described in Table 14 in Appendix G (Section 7 Page 356), respondents in Phase 1 indicated not being extrinsically motivated to share knowledge in their SEs. These findings were reinforced in Phase 2 by participants' comments about the real motivation of their employees, as well as the limitations in terms of giving monetary incentives to their employees. In the words of participants SE17 and SE19:

> *'.. what actually do people want, why people are working in a Social Enterprise; you don't come to work in a company like this if you want to make a fortune, and be a business magnate. There are no opportunities for promotion, there is nowhere to go, we are all flat. So if you feel you have a career mission, and you want to rise up the ladder, you don't stay here; you don't come here in the first place. I think the aspirations of people are different.' (SE17)*

These findings have also assented with prior literature regarding SEs (Sharir and Lerner, 2006; Shaw and Carter, 2007; Ohana and Meyer, 2010). These studies suggested that motivation of SE members is less money-related, due to the financial restriction of the SE, and more associated with benefits obtained by the results of collective rather than individual actions, as well as a strong belief in the work of the enterprise. This corroborates the finding of Intrinsic Motivation influencing the development of OC in SEs, which is explained in the following section.

Taking into account previous studies presented in **Table 3.3** (Page 57) and the empirical evidence analysed in this research, a possible explanation of the 'non-relationship' between EM and the development of OC can be proposed. This is related to the fact that rewards may break relationships due to competitive behaviour (Kohn, 1993; Sveiby, 2001). This behaviour can inhibit cooperation and result in managers substituting constructive feedback and social support by using reward systems. The reduction in cooperation and feedback may result in people not willing to share and manage knowledge (Bock and Kim, 2002).

Extrinsic motivations are not required to ensure knowledge sharing among members of SEs. More importantly, the possible use of these rewards may jeopardise the natural collaborative culture of SEs. Members may have a negative attitude towards receiving extrinsic benefits in return for knowledge sharing behaviour, which they perceived as a normal activity in their SE. As O'Dell and Grayson (1998a, p170) recommended *'don't give cash bonuses to people motivated by a sense of involvement and contribution'*.

The third element of the variable 'People' is **Intrinsic Motivation (IM)**. This is the first variable among the ones explained so far that has been evaluated with both quantitative and qualitative analyses, and therefore, included into the evaluated KMC-SE Model. This indicates that IM influences the development of OC in SEs. As was explained previously, the motivation of employees will determine their willingness to share, create and integrate knowledge in their organisation.

The variable IM is explained in detail in Chapter 3 (Session 3.2.1.2 Page 55) and refers to the degree to which employees feel confident in their ability to provide knowledge to others, 'self-efficacy', and feel good helping other members by sharing their knowledge.

As was reported in the previous EM discussion, participants recognised that members of their SEs were intrinsically motivated to work and share knowledge. Apart from the intrinsic motivation associated with the engagement with the social mission of the SE, participants also outlined certain strategies implemented in their SEs to maintain their employees motivated. These strategies were exemplified in **Table 5.12** (Page 157).

Example 3: SE19

The Social Enterprise of participant SE19 is a health-wellbeing services centre and sexual health consultancy. The SE employs people that may have criminal records, may have been involved with the adult sex industry, or may have come from long term unemployment. The SE also offers free services and events to its local community.

The surpluses obtained from the centre are principally re-invested for its social purpose. Thus, the CEO is conscious that *'… we can't pay massive pay-bonuses at the end of the year or whatever. So, we have to provide incentives and rewards as we go along'* (SE19). These incentives and rewards provide employees with **intrinsic motivations** to stay in the SE and share their knowledge. Some of these strategies are:

- 'Happy manifesto': everyone tries to make it a enjoyable place in which to work, as well as having social events all together, like going to the cinema;
- 'Duvet day': once a quarter employees can have a day off by calling the same day and claiming a 'duvet day';
- Health and wellbeing policy: offer support and advice for the wellbeing and health of all employees; and
- Personal development plans based on SWOT analysis.

This finding corresponds with previous empirical studies in medium and large private organisations described in **Table 3.3** (Page 57), which found relationships between IM and specific processes of knowledge. As was explained in the previous EM section, this finding also agreed with earlier studies on SEs that suggested the existence of more intrinsic than extrinsic motivations among members of SEs (Sharir and Lerner, 2006; Shaw and Carter, 2007; Ohana and Meyer, 2010).

Based on earlier literature and empirical studies, as well as the information collected in Phases 1 and 2, two possible explanations can be provided for the positive influence of IM in the development of OC:

i. Members of SEs are not extrinsically motivated to share and work in their SEs. As Bock *et al.* (2005) explained, the existence of extrinsic motivations can be to the detriment

of the intrinsic motivations of employees. This can be interpreted in such a way as to conclude that the existence of intrinsic motivations in members of SEs is the reason why they do not need extrinsic motivations to work in the SE; and

ii. As will be explained further in the Process Capability' section (Section 6.1.2.1 Page 204), SEs possess an increasing amount of tacit knowledge that travels not only across the organisation but also externally to communities, suppliers, customers and government. Osterloh and Frey (2000) argued that intrinsically motivated employees are required when the knowledge being transferred is primarily tacit. Hence, due to the high level of tacit knowledge managed by SEs, it is necessary to have members confident in their ability to provide knowledge to others. Moreover, members who feel pleasure in sharing knowledge and thus helping others to solve their problems.

Summarising, two elements that have been considered by academics and practitioners to be crucial in the development of KMCs, or the successful performance of KM programmes, have been found not to influence the development of OC in SEs. These elements are employees with T-shaped skills and also those who are extrinsically motivated to share knowledge. This finding found some support in previous empirical studies in larger organisations, proving that there is no relationship between such elements. As was demonstrated in this section, structural and cultural characteristics of SEs have defined the organisational settings where only the intrinsic motivation characteristics of their members are important when developing OC. As SE12 defined it:

> *'… if we want to make social enterprises really mean something, you have to have ambitious people who are willing to go that bit further, to create a business but without the believe that they would be hugely rewarded if it is successful. You have to have the people who are willing to compromise on their expectations but get the value from the social delivery as well as the financial reward'. (SE12)*

6.1.1.3 Structure

The third element to be discussed is Structure. As was explained in Chapter 3 (Section 3.2.1.3 Page 61), academics and practitioners have argued that organisational structure determines the different channels through which, and also the degree to which, knowledge circulates both inside and outside the enterprise (Gold *et al.*, 2001; Claver-Cortés *et al.*, 2007; Susanty *et al.*, 2012).

Two elements of organisational structure are considered crucial and essential for the successful creation, integration, transfer and share of knowledge in an organisation. The first one is a decentralised structure, where members can, or are encouraged, to participate independently and become actively involved in the decision-making process, whatever their

position. The second is an informal and adaptable structure, where employees have the flexibility to make *ad hoc* agreements to handle situations by creating and reframing current rules and procedures, as well as being encouraged to be creative and innovative.

Taking into account findings of earlier studies that suggested that SEs normally have flat, participatory and flexible organisational structures (Bull and Crompton, 2006; Perrini and Vurro, 2006; Bull, 2007; Shaw and Carter, 2007; Galera and Borzaga, 2009), a positive relationship between decentralise and informal structures and the development of OC was hypothesised. As was confirmed in the quantitative phase (Chapter 5, Section 5.1.3.6 Page 141), this hypothesis was accepted (factor loading = 0.75). This finding concurred with the empirical papers listed in **Table 3.5** (Page 62) concerning large and medium size enterprises. These suggested that a decentralised and more informal organisational structure influence positively the development of OC and KMCs (Gold *et al.*, 2001; Tsai, 2002; Lee and Choi, 2003; Al-Alawi *et al.*, 2007; Chen and Huang, 2007; Lee and Lee, 2007; Gholipour *et al.*, 2010; Zheng *et al.*, 2010; Liao *et al.*, 2011; Mills and Smith, 2011; Susanty *et al.*, 2012; Gururajan and Tsai, 2013).

In relation to **decentralisation**, Phase 1 confirmed that SEs structures have a participatory nature, where members are encouraged to make their own decisions related to their work (S1 Mean = 4.1) and participate in the decision-making process of the SE (S2 Mean = 4.1). When evaluating this element in Phase 2, participants described a maximum of four levels of decision making for medium size enterprises and one to three levels for micro and small enterprises (see **Figure 5.6** Page 153).

These findings concurred with Bull and Crompton (2006), who found that, as SEs grow and become complex, a lack of structure might inhibit workflow and supress employees' motivations and contributions. Thus, SEs tend to include additional levels of decision-making in their structure, involving the board of directors, integrated mainly by external experts or stakeholders, in key decision-making processes. This allows the SE to receive knowledge and experience from the board, which helps in giving direction to the successful performance of the SE.

In terms of way of working, participants described various organisational settings. Two participants working for medium size SEs illustrated being organised as normal hierarchical or mechanical structures (SE12 and SE10). Other participants of small SEs described working more under a project basis, like SE11 and SE6, and 'working groups', as SE17. In general, participants working for micro and small SEs described being organised more by projects or services. Overall, participants recognised that cross-cover, cross-department and cross-project communications were a constant and were encouraged in their SEs (see Appendix H Section 7

Page 356). Similarly, participants described a very participative and empowering structure, where members were encouraged to make their own decisions in their work, as well as participating in important decisions of the SE. This is exemplified in the Example 4.

Example 4: SE13

The Social Enterprise of participant SE13 is a home improvement agency. The SE offers commercial services to customers and uses the surpluses to support the work of home adaptations, repairs and maintenance for disabled and older people.

The SE has an empowering structure where the CEO '*only really hear about problems when everything has been done and the problem solved*' (SE13). A way for her to maintain this structure is by encouraging members to participate in important decision-making processes of the SE. One example was the layout of the new offices of the SE. The CEO asked every member to think about:

> *'… how we are going to do it', 'how we going to move', 'what do we need to do', 'what do we need to make decisions on', 'what can we do ourselves', 'what do we need other people involved in'. And getting them to think about all that as well, so people are making decisions and thinking of choices all the time... It's a strong team, now, I think.' (SE13)*

Elements of participatory structures were also recognised by the involvement of stakeholders in the decision-making process through their participation in the board of directors or trustees. For instance, SE8 has the 'advisory network' that is integrated by their 'service users'. Similarly, SE9 described that young people, who have been part of their projects in the past, were given the opportunity to form the 'youth board' and share their practice with the next projects. As SE9 confirmed, '*we said our best asset is our young people so 'let's set up our young people, so we need to set a board for them too*'. SE20 also has a board of directors that was drawn from the community and business, including community people and advisors. Generally, organisations that follow a co-operative or membership model, such as the credit union SE4, publisher SE18, community support enterprise SE16, empowerment consultant SE6 and mental health service provider SE10, have participation of stakeholders in their boards.

The higher level of participation of members and stakeholders in the decision-making process of the SE, as well as the relatively flat structure identified in the 21 cases in Phase 1, concurred with the findings of Phase 1, which indicate that SEs have normally decentralised organisational structures. As SE16 and SE17 described:

> *'We try and keep a very flat structure. It is not hierarchical at all. People have their projects that they are working on and they will share that information, work with working groups that might be other volunteers, might be working with me or the CEO or both. But it's a very co-operative way of working'. SE16*

> *'We are very small and we have a very flat structure. We have an elected board of directors, but the difference between directors and everybody else is very, very slight.' SE17*

However, the presence of this decentralised structure entails some difficulties for some SEs that want to behave both as democratic organisations as well as efficient businesses (see Appendix H Section 7 Page 356). This dichotomy and tension between both social and economic objectives of the SE was also identified by Kistruck and Beamish (2010) in their study of ten SEs. They found that structural configurations of the SEs differed in the degree to which attempts were made to integrate or separate the social and financial activities of the organisation, resulting in significant tension over SE leadership.

Example 5: SE5

The Social Enterprise of participant SE5 is a community development association that operates a community centre and hub. Some of the services offer in the centre include: space for local community groups, services for older people, nursery and out of school provision.

When the CEO joined the SE two years ago, the SE was organised around departments. In his words, *'it was very much silo working, very little cross-over'* (SE5). This working behaviour was not working efficiently and the CEO decided to *'break down those silos, and get people to recognize that they work for one organisation that happens to be a charity and not a business, although we follow business principals'* (SE5). The strategy worked and senior management teams started working much more collaboratively, having more discussion around the SE development.

> *'The feedback I'm getting is that it is actually much better because it is no longer an internal competition about who looks like they are doing well, or not. It is a collective ownership of the whole organisation and people are patted on the back (praised) for the collective success of the organisation, which is much nicer.' (SE5)*

Regarding **formalisation**, Phase 1 showed that members of SEs have the flexibility to make informal agreements to handle situations (S3 Mean = 4.0). Participants of Phase 2 also explained how a management style with a preference to *'keep things quite informal'* (SE16) was normal in their SEs. For instance, several informal sharing opportunities and conversations occurred among team members, some of them just to troubleshoot aspects of specific projects (SE6). Although some participants referred to having formal policies and procedures, as was explained in Chapter 5 (Section 5.2.2.1 Page 152), these were described only by seven participants and were associated mainly with operational issues.

However, some participants admitted that there is an ambiguity between being too informal, so that the organisation cannot properly operate, and being too formal, as that goes against the organisation's spirit. As SE17 reflected:

> *'… you don't want to be too bureaucratic and heavy handed and spend all your time writing down rules but at the same time you want enough information that enables the company to carry on. SE17.*

This highlights the possible difficulties faced by smaller SEs that encourage flexible environments and structures but, at the same time, recognise that some procedures and norms need to be followed in order to be more efficient and effective as organisations. This echoes the previous findings in decentralisation about the tension perceived by SEs between their social side and their economic side, which has already been recognised in previous SE research (Lyon and Ramsden, 2006; Kistruck and Beamish, 2010). This tension has permeated the organisational behaviour of SEs.

Summarising, it can be concluded that SEs possess decentralised, more informal, organisational structures that result in the development of OC. This development was explained with specific cases studied in Phase 2 that demonstrate how this structure facilitates the sharing, creation and integration of knowledge from both members and stakeholders in the SE (see Appendix H Section 7 Page 356). This has resulted in tangible benefits for the SEs, such as proposals for new services, strategic planning decisions and creative and innovative responses to an uncertain environment. Nonetheless, it is important to highlight that informal structures do not mean enterprises without norms and procedures, but enterprises that keep a set of norms and procedures and encourage their members to move beyond those processes and make more informal agreements to handle situations.

6.1.1.4 Culture

The fourth and last variable of the OC to be discussed is Culture. As was explained in Chapter 3 (Section 3.2.1.4 Page 65), the central role played by culture in KM is in defining: what knowledge is valuable; what knowledge is shared internally or externally; who is expected to have, share and save what knowledge; how knowledge will be used; and how new knowledge is captured, legitimated, rejected and distributed throughout the organisation (De Long, 1997; Davenport *et al.*, 1998; Davenport and Prusak, 1998). The dimensions of culture studied in this research are: *collaboration*, which facilitates knowledge exchange; *trust*, which assures open and substantive knowledge exchange; *learning*, which allows the organisation to be infused by new knowledge; and *mission*, which refers to the existence of a shared definition of the organisation's purpose that may encourage the growth of knowledge within the enterprise.

Taking into account the strong evidence presented in earlier empirical studies and their

discussion presented in Chapter 3 (Section 3.2.1.4 Page 65), and the fact that SEs are considered to have cultures that promotes collaboration and trust (Chell, 2007; Shaw and Carter, 2007; von der Weppen and Cochrane, 2012), a positive relationship between culture elements and the development of OC, was hypothesised.

The quantitative phase supported this hypothesis for the four dimensions of culture, but resulted in a new association of these elements. As was demonstrated in the Factor Analysis in Chapter 5 (Section 5.1.3.2 Page 138), the indicators of the variables 'collaboration' and 'trust' were highly correlated, thus, resulting in only one element. This decision was supported by previous researchers, such as Connelly and Kelloway (2003), who developed the variable 'Social interaction culture' as a measure of employees' trust and willingness to support each other. Likewise, Lin (2007) suggested that collaboration ability depends heavily upon trust as unrestricted reciprocity, and that information and knowledge sharing will not occur freely without such reciprocity.

Further to this new group of variables, three dimensions of culture, that is, collaboration and trust, learning, and mission, were found influential in the development of OC in SEs.

Starting with **collaboration and trust**, Phase 1 indicated that members of SEs are supportive and helpful (CL1 Mean = 4.3), ask other members for assistance when needed (CL2 Mean = 4.1), trustworthy (TR1 Mean = 4.4) and have reciprocal faith in other's decisions (TR2 Mean = 4.0). Participants in Phase 2 concurred with these findings, as well as with previous studies in SEs that found empirical evidence of a collaborative and trustful culture in SEs (Manfredi, 2005; Shaw and Carter, 2007; von der Weppen and Cochrane, 2012). This was endorsed by comments given by participants describing their work environment to be 'very co-operative' (SE16), and to facilitate collaboration and sharing of ideas (see Appendix H Section 7 Page 356).

However, participants also described some inconvenience and difficulties faced by their SEs to maintain this trustful and collaborative environment. Some of the barriers were associated with the difficulty of getting office space where all members of the SE can work together. As was previously discussed in the variable Technology, members of micro SEs do not have, in the majority of cases, one, shared office space. This has a significant effect in their strategic ambition and impact achievement because members may not share their knowledge as frequently as may be required (see Appendix H Section 7 Page 356). This may jeopardise the effectiveness of the organisation. As SE9 explained:

'… cause we are very proactive people, but sometimes you need to be reactive and that was always difficult when we were in two different places.'

Example 6: SE3

The Social Enterprise of participant SE3 is a consultancy company. Their objective is helping older people make informed choices about meeting their housing and care needs. This is obtained by providing updated and relevant information through their website. The information is also used to produce reports for government and developers.

The SE has twelve employees but in the recent years it has been difficult to maintain a collaborative environment within the SE. This was due to the attitude of some members, who were not interested in working collaboratively with others. Managers, aware of this, have changed the physical locations of people to facilitate their in-house communications. This, however, did not have any effect and, as SE3 mentioned:

'... as we get smaller, it just simply becomes unbearable … we reorganized the office, but as soon as people are in front of their computers, they just don't want to know' (SE3)

The SE of Example 6 has been passing through a very difficult financial situation and has been cutting down some of the staff, as well as reducing salaries. This uncertain environment may result in employees not being motivated to share and build organisational knowledge that would benefit the SE. Another reason may be that members have little interest in knowing what others are doing as they perceive the more they know, the more duties will be designated to them (Chan and Chee-Kwong, 2008).

Another difficulty in collaborating and sharing knowledge was described by participant SE8, who expressed her fear of including a new director into her team, and having to delegate important responsibilities of the SE to this new director (see Appendix H Section 7 Page 356). This fear can be comprehended by assuming the philosophical statement made by Sir Francis Bacon that 'knowledge is power'. As has been previously identified in the KM literature (Liebowitz, 2001; Gordon, 2005), participant SE8, who is the funder, founder and current CEO of the SE, is afraid of losing the power and assuming the risk that growing and involving new people in a small enterprise can carry. The fear can then result in not sharing the appropriate knowledge and not collaborating with other members, resulting in further problems for the SE. This practice was also similar to what Sparrow (2001) found in SMEs, where owner–managers attempted other means to limit the diffusion of their expertise by deliberately avoiding training and development opportunities for others, regarding certain aspects of their own

personal expertise.

Relating the finding of a collaborative and trustful culture with the management of knowledge within SEs, participants highlighted the following perceived advantages:

- Participant SE9 has embedded in his SE that participants of previous projects have to meet new participants. This has resulted in an important sharing of experiential knowledge of the value of their contributors to the projects, as well as facilitating the effective communication among them. This demonstrates how a collaborative environment can stimulate knowledge transfer, which requires individuals to come together to interact, exchange ideas and share knowledge with one another (Wong, 2005);
- The small size of the SEs has resulted in more internal collaboration *'to try to work as a team, it's quite a close feeling'* SE17. This environment has benefitted the SE by allowing members to *'cross-cover for each other'*, distributing the knowledge among the SE and not centralised it in only one individual. This 'close feeling' expressed by participant SE17 may influence members attitudes and intentions towards knowledge sharing (Lin, 2007), allowing them to share their experiences and knowledge with one another, combining new learning and past experience (Waheed *et al.*, 2013).

These advantages perceived by participants concurred with academics and practitioners (Van de Ven, 1986; Ackoff, 1994; Wang and Ahmed, 2003; Yang and Chen, 2007) who have emphasised how a collaborative and trustful culture enables effective, non-barrier communications. This culture often begins with ideas from employees and are then integrated and coordinated to benefit the whole organisation, as well as helping to give a clear understanding of organisational vision and strategy at all levels.

The second dimension of culture studied was **learning and development**. This variable was allied with the opportunity, variety, satisfaction and encouragement of learning and development in SEs. The values obtained for the indicators of this variable in Phase 1 were the lowest from all the elements of the variable culture (see Table 14 Appendix G Section 6 Page 326). Nonetheless, this variable was still significantly associated with the development of OC in SEs (Factor loading = 0.88). Respondents in Phase 1 indicated being partially satisfied by the contents of training and development programmes in their SE (L1 Mean = 3.7). Equally, they indicated that their SEs do encourage people to attend seminars (L3 Mean = 3.9) and provide them with opportunities for informal development (L4 Mean = 3.8). This concurred with previous studies on SEs that identified a learning culture among SEs (Bull and Crompton, 2006;

Bull, 2007).

Another finding from Phase 1 (Chapter 5, Section 5.1.5.5 Page 150) demonstrated a significant relationship between indicators of learning and development and the size of the SE. This implied that larger SEs, in terms of number of employees, provide more learning and developing programmes that satisfy members' necessities, than smaller SEs. This finding corresponded with the study of Alvord *et al.* (2004) who found that only large scale SEs were involved and were investing in high levels of organisational learning and staff development. The possible reason for this is associated with the fact that small SEs face problems of scarce resources and often struggle to remain operational. Another possible explanation suggested in studies on micro enterprises (Matlay, 2000; Wong and Aspinwall, 2004), is that the owner or managers of these companies tend to be the beneficiaries of the learning process, and not the employees.

The experiences told by participants of Phase 2 reflect some of these findings and presented examples of the possible difficulties faced by SEs in terms of learning and development.

Regarding the content of the training and development programmes, participants described the different types of training offered in their SEs (see **Table 5.15** Page 163), which was, in their majority of cases, offered by external providers. The most common training, which can also be considered development, was NVQs (National Vocational Qualifications) that are qualifications offered by government institutions. Other common training was compulsory by statutory regulations. Participants also described more business-related training, which was considered crucial for their future development and relationship with stakeholders, such as, the use of social media.

The important contribution and support on learning and development offered by external organisations has been identified previously in SE studies (Bull and Crompton, 2006), demonstrating how SEs were placing significant efforts into networking and collaboration with other like-minded organisations in order to open external knowledge avenues. This can be considered an important strategy followed by SEs to overcome some difficulties in getting adequate and affordable training that can be translated to their environment (see Appendix H Section 7 Page 356).

Continuing with the content of the training and development programmes, four participants, two from micro SEs (SE11 and SE19) and two from small SEs (SE6 and SE10), described having formal training and development policies, as well as personal development plans, which were complemented by designated budgets. The other sixty-seven participants described more informal practices for learning and development, which were looking more at '*developing the*

individual, what their needs are' (SE16) (see Appendix H Section 7 Page 356).

These findings offer an additional alternative from the one advised by Bull and Crompton (2006) about the differences between a 'more-rational business model' and the 'less-structured model' of a SE. Their research suggested that 'more-rational business' SEs tend to have more formal training and development strategies. This research has found that formality of training strategies is also associated with the general culture and structure of the SE. Participants who indicated having formal training strategies also described a more vertical structure, with at least three levels of decision-making. This may indicate that these SEs were following a 'more-rational business model', as well as being strongly driven by their economic and business activities.

In terms of encouragement given to members of the SE to participate in seminars, conferences and symposia, participants emphasised the importance of promoting a learning culture among members. This was obtained by supporting members to participate in particular training days (SE10), or to attend training provided by one of the members of the SE, who is specialised in that area (SE6). This last strategy, apart from encouraging members to share knowledge and learn from each other, also benefits the organisation in using the resources available in the SE without incurring investment that can be difficult to justify for SEs.

Regarding the opportunities offered by the SE for informal development, such as, work assignments and job rotation, only one participant explicitly mentioned job rotation strategies implemented in his SE (SE12) (see Appendix H Section 7 Page 356). Nevertheless, other members emphasised the importance of cross-cover and training in other members' job. This concurred with small business literature (Wickert and Herschel, 2001) that advocated job rotation as the easiest, cheapest and most effective way of preventing the breakdown of certain processes once a key employee leaves. Likewise, it allows the small firm to accomplish a positive form of knowledge redundancy that gives all employees a form of common ground when facing problems within daily operations.

Summarising, this study found that SEs followed more informal strategies to offer training and development to their members, concurring with previous research in SEs and small business (Chaston *et al.*, 1999; Wong and Aspinwall, 2004). Moreover, as with any other small organisation, SEs have some difficulties in justifying investment in training and development because they cannot afford them or because they cannot find the right training programme that can be transferable and applicable to their realities. In order to overcome these difficulties, participants in Phase 2 described different strategies such as, accessing training through SE networks and sectorial associations that may offer more applied and affordable training, as well as implementing job rotation strategies.

The last dimension studied in the variable Culture was **mission**. This element refers to the degree to which members of the SE share the definition of the organisation purpose and vision. The relationship between clear and shared mission and vision, with the development of OC was found statistical significant in SEs (Factor loading = 0.81). The answers given by respondents of Phase 1 confirmed that members of SEs have a clear mission that gives purpose to their work (M1 Mean = 4.3), as well as a shared vision of what the SE will be like in the future (M2 Mean = 4.1). Accordingly, Phase 2 also corroborates this finding with participants commenting that:

> *'You have to really believe in what you're doing …. You have to be very resilient and you have to truly believe in what you are doing, because it's actually easy just to put your coat on and say, well I tried and it didn't work' (SE18).*

> *'Clarity in understanding our mission, our goals, and what we expect from each other is critical to our success' (SE1).*

These characteristics of members of SEs identified in this study concurred with previous research in SEs (Manfredi, 2005; Doherty *et al.*, 2009; von der Weppen and Cochrane, 2012), suggesting that, by SEs being motivated and aware of their social mission, they are stimulating their employees to be creative and hard-working, as well as creating internal cohesion. These findings also corresponded with studies of non-profit organisations that confirmed how members of these organisations are more concerned with their organisation's mission that in being competitive (Andreasen *et al.*, 2005).

Nonetheless, participants in Phase 2 also expressed some difficulties faced by their SEs in order to maintain this shared mission and vision (see **Table 5.16** Page 165). One difficulty described by participants SE15 and SE21 was associated with the challenge of maintaining a growth trend. This may involve the inclusion of new staff into the enterprise, but at the same time would also mean sharing the mission and vision of the SE with people that may not have the same shared ethos, norms, values, and ways of working with other members of the SE. This fear was also reported by Bull and Crompton (2006), who identified that SEs found it difficult to teach new staff their ethically-driven culture.

Another difficulty communicated by participants was related to getting all members to understand both sides of the SE, the commercial and social challenge that is embedded in the mission and vision of the SE. This element was raised before in other culture dimensions studied in this research, as well as previous studies in SEs (Alvord *et al.*, 2004; Chell, 2007; Dacin *et al.*, 2010; von der Weppen and Cochrane, 2012), where the tension between the economic and social activities was found to influence people's motivations, commitment and behaviours in the SE. Moreover, this tension was found to grow directly proportional to the growth of the SE. That is, when the SE is growing, the tension between its social and economic

objectives, as well as the difficulties in transferring and maintaining their ethos, grows as well.

Overall, both Phase 1 and Phase 2 assessed the group of elements that may result in the development of OC in SEs. These are:

i. members intrinsically motivated;
ii. a decentralised and informal organisational structure;
iii. a collaborative and trustful culture;
iv. support to learning and development; and
v. a clear and shared mission and vision of the SE among all members.

Three elements did not support the development of OC in SEs, namely Technology, Extrinsic Motivation and members with T-shaped skills. From these three variables, technology had an important contribution in the management of knowledge in SEs and, therefore, it is necessary to include some elements of these variables in the assessed KMC-SE Model. These will be analysed further in Section 6.2 (Page 227).

6.1.2 Process Capability (PC)

Knowledge is situation-specific and a significant amount of knowledge is not shared but held by individuals (Leonard-Barton, 1995). Thus, organisations need processes to promote knowledge sharing, creation and utilisation. As was explained in Chapter 3 (Section 3.2.2 Page 71), the processes studied in this research followed the Knowledge-based View (KBV) theory perspective and include Acquisition, Conversion, Application and Protection (Gold *et al.*, 2001). Consequently, four hypotheses were developed that theorised a positive relationship between each knowledge activity and the development of PC in SEs.

As was emphasised in Chapter 2 and 3, there is a paucity of studies in the SE literature that explored how SEs are managing their knowledge. Therefore, the following sections discussed each knowledge process supported by literature from SMEs, non-profit organisations (NPOs) and enterprises in other sectors. Before these discussions, the type of knowledge managed by SEs is described, which helps to understand its particularities, as well as discussing how the knowledge processes within SEs are defined, and whether they are informally or formally implemented in the SE.

6.1.2.1 Types of knowledge managed by SEs

By analysing the different knowledge activities undertaken by SEs, participants of Phase 2 described the knowledge and information that is acquired, converted, applied and protected

by each enterprise. Following the Polanyi classification of knowledge explained in Chapter 2 (Section 2.4.1 Page 32), this knowledge and information varied from completely tacit knowledge that is kept 'in our directors' heads' (SE7) or in the 'collective consciousness' (SE17), to completely explicit knowledge that is kept in shared servers and datasets. As was observed in **Table 5.17** (Page 166), participants described having considerable tacit knowledge in their SEs. This concurred with previous literature on SMEs (Osterloh and Frey, 2000; Maguire *et al.*, 2007), which suggested that these organisations remain highly reliant on tacit knowledge that drives the organisation forward.

To emphasise the importance of tacit knowledge, SE13 reflected *'It's all mostly in people's heads, the memories, the failures, the successes and the past that keep everything going'*. The type of tacit knowledge presented in SEs can be described under the classification of knowledge assets proposed by Nonaka *et al.* (2000b). These were *experiential knowledge,* such as, members', stakeholders' and other SEs' experiences, members' skills, and SE history and reputation; and *conceptual knowledge,* such as, community necessities and cultural understanding.

As will be explained in each of the activities in the following sections, this type of experiential and conceptual knowledge is rarely managed. This was corroborated by comments given by participants, such as:

> *'Some of the staff that is just there, it's almost like this is the social history of how we've done things, and particularly when we have made mistakes, I suppose; because you make mistakes and you learn from them and you don't do that again. But that's only really effective through historically by people.' (SE13)*
>
> *'… there's a lot of data in people's heads that we haven't extracted yet, so we've got lots of stories of how we worked with people and what's gone on in the past, but we don't take enough time to sit down and reflect on all those issues.' (SE15)*
>
> '*… to be able to pass that knowledge on I would have to contextualise it and focus on being able to teach someone else, and that means knowing what I know, and I don't really know what I know. And that's a challenge I suppose ' (SE9)*

The last comment clearly stated some of the main difficulties in managing tacit knowledge within organisations, and transforming it into explicit knowledge, which corresponded with numerous KM discussions, such as 'if only we knew what we know' (O'Dell and Grayson, 1998b; O'Dell and Grayson, 1998a).

Another possible reason why tacit knowledge is rarely well managed by some SEs is the idea that sharing too much tacit knowledge with a new person who is going to take it over actually constrains the creativity and development of new knowledge (SE17) (see Appendix H Section 7 Page 356). This may exemplify what Leonard-Barton (1992; 1995) called 'core rigidities', which

are capabilities that constrain future learning and actions taken by the organisation, thus hindering knowledge creation rather than promoting it.

In spite of this, participants acknowledged the importance of this knowledge by realising how much the SE would lose when a member leaves the organisation. This will be discussed further in the conversion process (Section 6.1.2.4 Page 211).

The previous considerations were focused on the particularities of the tacit knowledge found in SEs. Regarding explicit knowledge, the other two knowledge assets proposed by Nonaka *et al.* (2000b), systemic and routine knowledge, were also detailed by participants, such as, clients' information and operational knowledge (see **Table 5.17** Page 166). Participants were also aware of the importance of managing explicit knowledge in their SEs, as SE8 interpreted:

> *'Because you can't find yourself talking about problems that you haven't really collected the information and haven't done anything with it … so it's good to keep information, at least you can at some point see statistics on what makes a difference and what doesn't' (SE8)*

As may be observed in **Table 5.17** (Page 166), different types of tacit knowledge were described more often by micro organisations, whereas explicit knowledge was mentioned more frequently by small and medium SEs. This corroborates the initial discussion presented in this section, which recalled earlier studies that suggested that smaller organisations tend to have more tacit knowledge than larger ones.

6.1.2.2 Are SEs developing KMCs formally or informally?

When participants were asked about their formal practices of KM, the quantitative study (see Chapter 5 Section 5.1.5.3 Page 148) found that only 8% of respondents reported having a KM programme in place, with a significant group of 26% respondents being 'not sure' about it. This was corroborated by the qualitative study, which found that only four of the 21 participants mentioned having 'formal' practices of KM.

Nonetheless, it was evident in both quantitative and qualitative analysis that participants described behaviours and activities within their SEs that revealed some KMCs. Participants described both organisational conditions to leverage knowledge, as well as activities for acquiring, applying, conserving and protecting knowledge within their SEs.

What this indicates is that, as was found in previous studies of KM in SMEs and Non-profit Organisation (NPOs) (Uit Beijerse, 2000; McAdam and Reid, 2001; Holm and Poulfelt, 2003; Desouza and Awazu, 2006; Hume and Hume, 2008; Hutchinson and Quintas, 2008; Kong, 2008), SEs have knowledge activities that are not governed by the structures, concepts or formal language of KM, but were expressed more informally as general practices of the organisation.

This can be supported by analysing the answers given by respondents in the quantitative study when asked to describe the KM activities included in their KM programmes (see Chapter 5, section 5.1.5.3 Page 148). The 8% who reported having a KM programme in place described, as their KM activities, the existence of information management software, some collaboration practices, monitoring processes and training programmes. Subsequently, four of the participants in the qualitative phase, who reported having a KM programme in place in the survey, described their KM practices as informal (SE1), mainly the collection of statistical and general information (SE2 and SE3), and learning and reflecting on how to improve practice (SE7).

This corroborates that SEs, in the main, are in an early stage of learning about the formal concepts of KM, and adopt informal, rather than formal, processes to manage knowledge. As SE6 expressed it: *'I think it just felt that (implementing shared folders by headings), it was instinctive, I just felt that was right'.*

These informal processes and activities of managing knowledge, however, differed significantly from one SE to the other. Thus, the following discussions present the main activities and strategies adopted by participants in their SEs to manage their knowledge, both formal and informal, giving important consideration to the main differences made evident in the empirical data. It is important to include informal knowledge activities in the study because, as Hutchinson and Quintas (2008, p135) suggested '*a research focus on formal KM processes alone would therefore lead to an incomplete picture'*.

6.1.2.3 Acquisition

Knowledge acquisition activities are orientated towards obtaining knowledge for the organisation. This involves the creation of new knowledge, sharing of new and existing knowledge, and importing knowledge from external sources. Based on the discussion presented in Chapter 3 (Section 3.2.2.1 Page 71), the hypothesised KMC-SE Conceptual Model projected a positive relationship between acquisition activities and the development of PC in SEs. As was explained in Chapter 5 (Section 5.1.3.6 Page 141), the data analysis in Phase 1 supported the hypothesis (Factor loading = 0.87), concurring with previous studies in medium and large private firms (see **Table 3.8** Page 74), and indicated this activity as the most influential of the three activities developing PC.

This finding corroborated that SEs have some availability of processes and/or mechanisms for: creating and acquiring knowledge from different sources (AC1 Mean = 4.0), sharing knowledge with business partners (AC2 Mean = 4.0), sharing knowledge among members (AC3 Mean = 4.1), and distributing knowledge throughout the SE (AC4 Mean = 3.9).

Participants in Phase 2 outlined various internal and external activities that support the acquisition and creation of knowledge in SEs. In order to analyse these activities, the knowledge creation SECI (socialisation, externalisation, combination and internalisation) cycle created by Nonaka *et al.* (2000a), and explained in Chapter 3 (Section 3.2.2.1 Page 71), is used. This allows the discussion to be presented in **Table 6.1** to cover all the acquisition and creation activities involving both tacit and explicit knowledge, and both internal and external knowledge in SEs. The comments given by participants in Phase 2 relating to the discussion in **Table 6.1** are presented in Appendix H (Section 7 Page 356).

Example 7: SE18

The Social Enterprise of participant SE18 is a secondary care centre that offers hospital-style consultant clinics. Their social objective is breaking down traditional barriers between the community and hospital. This resulted in new and innovative ways of delivering healthcare closer to the patient's home.

In order to achieve this social objective, the SE recognises the importance of obtaining unique knowledge of, and insight into, the social context of their customers. This knowledge is crucial in developing superior and more relevant services to the community. To acquire this knowledge, the CEO mentioned the following strategies:

> *'...We have to get out and we talk to people in the community, we go to coffee mornings, I work with the local Rotary club, I was involved with a fair in the village over the summer, we will sponsor coffee mornings by buying a big cake or something like that. So it's really by, really getting into the community and working with the community' (SE18)*

Table 6.1 – Discussion knowledge acquisition activities

SECI cycle	Internal	External
Socialisation (tacit-tacit)	Maintained by supporting and encouraging informal and constant communication among members through: • Informal meetings (SE13) • Team 'huddles' (small groups) (SE6) • Informal meetings between 'mature' and 'young' members, allowing to cascade down knowledge (SE15) • Allocating people in different places to stimulate communication (SE3) • Training members in each other's job, creating and maintaining a collective operational knowledge within the SE (SE17) This was not difficult because SEs are in the majority micro and small enterprises where people know each other very well and are required to work collaboratively to execute projects.	Supported by: • Having face-to-face conversations with the community the SE was serving (SE5, SE10, SE18). This permitted the accumulation of tacit knowledge about the real necessities and the context for those necessities. This provided unique knowledge of, and insight into, the local market and customers, demonstrating their genuine interest in creating social value.
	Implication: All these internal and external activities for knowledge acquisition and creation offer the context for socialisation, which facilitates the increase of tacit knowledge, and inspires trust and commitment. By demonstrating the existence of these knowledge activities in SEs it corroborates the earlier findings about the organisational culture of SEs that has embodied trust and collaboration attitudes.	
Externalisation (tacit-explicit)	Accessible throughout: • Regular staff meetings, where people discuss and integrate issues, looking at commonality and possible options of action, as well as discussing their problems and difficulties in their jobs (SE7) • Employees' expertise meetings that created new collective knowledge based on members' different expertise (SE6) • Debriefing people before they leave the SE. This helped the SE to retain people's knowledge within the organisational memory by transforming tacit knowledge into accessible explicit knowledge (SE17)	Maintained by: • Meeting local community actors in Community Partnerships to discuss their perceptions of the SE, what it is actually happening in the community and their necessities. This activity allowed the SE to be aware of 'what was out there' and how to drag in resources to the SE, transforming the tacit knowledge of the community into explicit input for their planning process (SE5, SE15 and SE16). • Visiting other similar SEs, or meeting them in SE network events to share experiences, practices and doing benchmarking (SE4, SE15, SE18 and SE20). This was crucial for sharing experiences and learning lessons among similar organisations that were tackling similar social problems, or were undertaking similar business activities.

<table>
<tr><td></td><td colspan="2">Implication:
All these spaces, conversation with the community, the community partnership, visiting other SEs, and the SE network events were offering a context for externalisation that supports the conversion of tacit knowledge into explicit knowledge.</td></tr>
<tr><td rowspan="2">Combination (explicit-explicit)</td><td>Obtained by:
Collecting and storing the operations information into laptops, spread-sheets and databases (SE9, SE12, SE13, SE17, SE18 and SE21). In some cases, this information was available to other members of the SE through shared servers and folders, which were both accessed internally only or externally through cloud solutions (SE6, SE7, SE10, SE11, SE13, SE14 and SE19)
Distributing and sharing information internally through magazines or newsletters that were sent frequently to all members in order to keep them informed of what was happening in the SE (SE2 and SE18). Larger SEs, normally with more than 10 members, followed this practice.
Keeping a ‘Policy Hub’ or ‘library of information’ accessible to everyone in the SE (SE6, SE10, SE13 and SE19), with information about policies, research reports, business plans, procedures and board reports. Nevertheless, participants admitted that the existence of the ‘Policy Hub’ was not a guarantee that people were accessing it and getting the knowledge.</td><td>Created by:
Conducting satisfaction surveys on paper and online before, during and after receiving the service, such as consultancy, training, or other social services (SE3, SE8, SE11, SE13, SE14, SE18 and SE20).
Gathering online, on paper, face-to-face, with online forum or on special software general information of the clients, such as names, contacts, demographic and service-related, as well as the type of communication they had with the SE (SE1, SE2, SE3, SE16 and SE19). This information was then kept both in paper and digital databases for its further consideration.
Sharing information with community and stakeholder using social media solutions or the SE website (SE19 and SE21).
Attending associations and/or network events, or by receiving their newsletters (SE2, SE5, SE10, SE13, SE14, SE16, SE17, SE19 and SE20). This was information about the latest news in the sector, and policy and funding related issues.</td></tr>
<tr><td colspan="2">Implication:
All these activities permitted SEs to combine explicit knowledge, as explicit knowledge is relatively easily transmitted to more people in written form through technology and shared solutions.</td></tr>
<tr><td rowspan="2">Internalisation (explicit-tacit)</td><td>Supported by:
Building a complete manual of the SE, which allowed the SE to develop a franchise model (SE10).</td><td>No acquisition activities described by participants</td></tr>
<tr><td colspan="2">Implication:
This type of activity was less detailed by participants, with only one case identified. The knowledge gathered by the SE through experiences was converted into explicit knowledge, the manual, which was then offered to other SEs to develop tacit knowledge from it.</td></tr>
</table>

The findings presented in **Table 6.1** corresponded with previous studies in SMEs (Desouza and Awazu, 2006, Maguire et al., 2007) that found socialisation as the predominant way through which knowledge transfer and sharing occurred in SMEs. This is because employees are always in close contact with the owner, as well as in close proximity to each other. This resulted in a smooth flow of knowledge up and down hierarchical ranks, which normally occurs via personalised meetings among individuals.

However, it also contradicts findings from Dacin *et al.* (2010) in SEs and from Lim and Klobas (2000) in small firms. These authors suggested that SEs and small firms lack knowledge about their external social context. On the other hand, it agrees with evidence in SMEs presented by Desouza and Awazu (2006), who identified how these firms normally make it a priority to be well-connected with their localities and the community. This helps them to use environmental knowledge in an effective way concerning business activities.

All the knowledge activities previously described and discussed summarised the attempts made by SEs to acquire knowledge that can be converted, applied and then protected. It was noted that, in light of the findings in Phase 2, knowledge acquisition activities are the most usual knowledge activities in SEs, as may be observed in **Table 5.18** (Page 168) and **Table 5.19** (Page 169). SEs are currently acquiring, sharing and creating knowledge internally and externally, both tacit and explicit, without regarding it as formal KM practices, corroborating the statement given in Section 6.1.2.2 (Page 206).

6.1.2.4 Conversion

Knowledge conversion activities are orientated towards making existing knowledge useful. As was discussed in Chapter 3 (Section 3.2.2.2 Page 74), academics from both the KBV theory and the organisational knowledge creation theory concurred that knowledge needs to be converted in order to develop organisational knowledge, which can then be applied and protected. Therefore, the KMC-SE Conceptual Model hypothesised a positive relationship between conversion activities and the development of PC in SEs. Empirical data collected in Phase 1 supported this hypothesis (Factor loading = 0.82). Moreover, it indicated that SEs have certain activities that support the integration of different sources and types of knowledge (CV1 Mean = 3.8), as well as converting knowledge into action plans (CV4 Mean = 3.8), and to a lesser degree, activities for organising knowledge (CV2 Mean = 3.7) and replacing out-dated knowledge (CV3 Mean = 3.6).

Additional to these findings, the analysis in Phase 1 identified a statistically significant relationship between knowledge conversion activities and the age of the SE, with 95% confidence (see Chapter 5 Section 5.1.5.4 Page 149). This suggested that younger SEs have

more availability of knowledge conversion activities and mechanisms than older SEs. A possible reason for this is that older SEs have some defined practices for knowledge acquisition that are part of their organisational routines, but these SEs may not be aware of that knowledge and its potential applicability. Thus, they may not invest any effort on making that knowledge useful. On the other hand, younger SEs may be more interested in collecting knowledge that would have a value for the SEs, otherwise, they would not make any effort in collecting that information in the first place.

In order to analyse the activities of knowledge conversion described by participants in Phase 2, the SECI cycle of Nonaka *et al.* (2000a) is also used. The discussion of each element of the cycle for both internal and external knowledge is presented in **Table 6.2**. However, because conversion activities are more associated with the conversion from tacit to explicit knowledge, externalisation, and explicit to tacit knowledge, internalisation, both processes will be analysed in more detail.

Example 8: SE17

The Social Enterprise of participant SE17 is an academic publisher. The SE publishes books that increase awareness of important international issues and promote diversity and progressive social change. Established following co-operative principles, the SE has a participative and flat structure, with only ten employees, who are also partners.

Having existed for 37 years, the SE has a significant amount of knowledge and experiences accumulated by its employees. However, it was only after a very difficult and unexpected event that the SE understood the importance of managing that knowledge. The situation occurred a few years ago when the Finance Director died very suddenly leaving behind no information written about how she was doing her job. This was very challenging for the SE, which had to reconstruct everything again. But as SE17 explained *'… it was quite tough but it made you learn, you really learned. I think if you really have to find out for yourself you learn'*.

Now the SE is more conscious of the tacit knowledge in their members' heads. It has implemented some strategies to record this knowledge, such as regular debriefing sessions, training sessions in other's jobs, and role profiles with key skills, experiences, targets and responsibilities. These activities helped the SE to retain people's knowledge within the organisational memory by converting tacit knowledge into accessible explicit knowledge.

Table 6.2 - Discussion knowledge conversion activities

SECI cycle	Internal	External
Externalisation (tacit-explicit)	Achieved by: • Minuting staff meetings (SE8, SE10, SE13), sometimes recorded (SE10), stored in databases (SE17), shared with stakeholders (SE8), and, in a few cases, firm action plans were generated from the meetings (SE8, SE10, SE13). • Creating for each member of the SE, 'job description, role profile, what are the key responsibilities, what are the key targets, how the person manage his success, what are the skills needed, and the experience needed to do the job' (SE17). This information was stored in the system.	Maintained by: • Mapping out where the gaps are in the needs of the community and turning these into action plans for service development (SE5). • Producing case studies, research and publications by integrating the experiences and comments from people in the community with their own information about the services (SE10).
Combination (explicit-explicit)	Obtained by: • Storing customers and clients' information, and operational knowledge in databases (SE1, SE2, SE3, SE4, SE6, SE8, SE10, SE11, SE13, SE19 and SE20). • Integrating this with other explicit information within the SE to produce reports, publications and newsletters (SE1, SE3, SE8, SE10, SE13, SE14 and SE18). This information allowed the SE to keep track of the different processes within the SE (SE8 and SE19), inform stock allocation (SE2), inform the design of consultancy projects, and use as a reference guide for members. • Analysing customer satisfaction surveys to identify what customers wanted, needed and asked (SE3 and SE5). • Organised explicit operational knowledge in a shared server '*by headings that everybody shares … so people are more disciplined now to save things in files that mean something to everybody' (SE6)*. This SE also organised physical documents into folders with a list of contents that facilitated its future use.	No conversion activities described by participants
Internalisation (explicit-tacit)	Supported by: • Integrating information from different internal sources to build an organisational and operational manual for all members of the SE (SE10). The manual explains how the SE was working and recording actions that can be replicated.	No conversion activities described by participants

In general, it can be observed that SEs were not converting all the knowledge they were acquiring, specifically tacit knowledge into explicit knowledge and explicit knowledge into tacit knowledge. This finding matched similar results in small firms (McAdam and Reid, 2001; Wong and Aspinwall, 2004; Desouza and Awazu, 2006). These studies established that knowledge embodiment, although being helped by sharing and openness, was not systematically converted and used within the organisations. Knowledge, once internalised by employees was applied directly to work, and was seldom documented in a secondary storage medium like a notebook or information systems. Thus, it was simpler for small firms to organise tacit knowledge, but not explicit knowledge. This is because, being small, individuals have a better idea of the level of expertise and know-how of their colleagues and whom to consult if they need certain information. However, small firms often lack time, financial resources and formality in their systems and procedures to convert it to explicit knowledge.

Concluding, SEs can design more knowledge activities to convert not all the knowledge acquired by the SE but, at least, the knowledge that can create value in the future for the SE. This is because, as Durst and Edvardsson (2012) outlined, in order to manage effectively organisational knowledge, the enterprise needs to understand what types of knowledge are provided and their respective relevance to the firm.

6.1.2.5 Application

Application processes are focused on making knowledge useful, consequently, creating value for the organisation. Chapter 3 (Section 3.2.2.3 Page 76) described how both theory and empirical studies have demonstrated the significant relationship between applying knowledge and improving organisational outcomes. Considering that evidence, application activities were hypothesised to influence the development of PC in SEs.

Similarly to acquisition and conversion, the quantitative analysis supported this hypothesis, confirming that SEs have some kinds of activities and mechanisms applying their knowledge (Factor loading = 0.83). However, this does not indicate that all knowledge acquired and created by a SE was converted and then applied. As will be detailed in this section, some SEs are only acquiring and directly applying knowledge without converting it into organisational knowledge.

The findings in Phase 1 confirmed that SEs have some kinds of activities orientated towards making knowledge accessible to those who need it (A3 Mean = 4.1), using knowledge to adjust their strategic direction (A4 Mean = 4.1) and to help develop new products (A2 Mean = 4.0), and using lessons learned from past projects to improve future projects (A1 Mean = 4.0).

Phase 2 explored in more detail the different activities undertaken by SEs to apply some of the knowledge that was internally and externally acquired, and some of which was converted to organisational knowledge.

In relation to application of *tacit and explicit knowledge internally*, participants described the following activities:

- Converting knowledge acquired and shared in meetings into minutes and action plans, or directly into specific projects using lessons learned from previous similar projects (SE13);
- These meetings also allowed members and managers to *'…step back and reflect on what you've been doing, what you are trying to achieve and where you're going'* (SE15). The tacit knowledge shared in those meetings was then being applied into the organisation to adjust their strategic direction;
- Creating a *franchise model* based on the SE model (SE10) (see Appendix H Section 7 Page 356). The success of a franchise system is replicating, managing, developing, perfecting, disseminating, and improving an intangible resource, in this case knowledge, both within and across organisations (Paswan and Wittmann, 2009). Thus, this SE was creating, acquiring, converting and applying its organisational knowledge, which then resulted in value for the SE; and
- Creating job descriptions that included not only the explicit knowledge associated with the job, but also tacit knowledge, such as, the experiences needed for the job (SE17). This was combined with training in each other's job as well as regularly debriefing people. All this information and knowledge was used by the SE to '*fill in for people'*, avoiding '*hiatus*' and loss in productivity when a person left the SE.

Considering this last point, participants described a group of activities that were focused on applying and making knowledge available to everyone in the SE (SE10 and SE11). The main objective behind this practice was related to *succession planning* within the SE (see Appendix H Section 7 Page 356). Thus, by sharing knowledge throughout the SE, the management team and founders were guaranteeing that knowledge from CEOs and older members could cascade down to other members of the SE, assuring the SE continuity, or as SE15 stated *'keeping the organisation pointing in the right direction and moving forward*'. SEs were then converting tacit knowledge into tacit or explicit knowledge that was used by other members in case the owner of the knowledge was not there. Some of this knowledge is described in **Figure 6.2**.

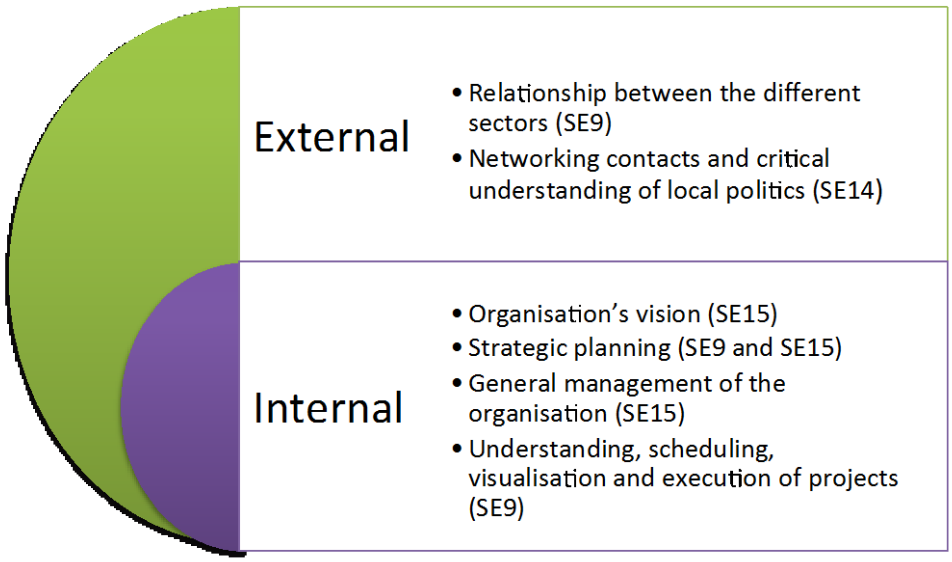


Figure 6.2 – Tacit knowledge in succession planning

Nonetheless, not all participants described having activities of acquiring and applying organisational knowledge associated with succession planning. In fact, the majority of participants did not have a succession strategy and some described this as one of the main threats to the future of their SEs (see Appendix H Section 7 Page 356). This evidenced how transfer and application of knowledge represents a critical aspect in view of the SE continuity. This is because the knowledge of some key employees, in the case of SEs, normally the Founder and/or CEO, may be the source of competitive and comparative advantage of the SE (Durst and Wilhelm, 2012). Thus, the departure of any member could result in a lack of essential 'know-how' important for the SE success, such as, fundraising expertise (SE15), or crucial contact with key relationships (SE14 and SE15).

This finding agrees with the empirical study of small firms by Lim and Klobas (2000), who found them susceptible to the loss of employees seeking better compensation and higher prestige associated with larger organisations, thus, leaving the firm with much-needed organisational knowledge. Though, these findings differed from another study of SMEs by Desouza and Awazu (2006). That paper outlined that small firms are not affected if one or more employees leave, due to the ease of availability of common knowledge. This, as was explained before, was not the case in SEs, where sometimes the person leading the firm was the founder, the funder and the CEO, who normally would have all the history and future vision of the SE, without which the organisation could no longer exist, in their head.

Example 9: SE15

The Social Enterprise of participant SE15 is a community-based company focused on homeless young people. The SE offers them housing, employment and training opportunities. The social objective is supported with business activities, such as, construction services, building maintenance, office accommodation and house renovation.

Having being in existence for 26 years, with 41 employees and an important social objective, the SE is aware of the importance of developing succession plans. As he explained:

> *'We need to be more robust about succession, because the organisation is needed. We know the clients are going to keep coming through the door, but we need to make sure that we are here to help them.' (SE15)*

For this purpose, the SE encourages a constant communication between 'mature' and 'young' members, who share their experience managing the SE and setting the strategic plans. This allows the knowledge to cascade and pass on to new members of the SE and to *'keep the organisation pointing in the right direction and moving forward'.* Moreover, the SE is developing their younger members who should be '*the future leaders of this organisation'* on their leadership and management skills.

Knowledge that was acquired by sharing experiences with other SEs was employed by some SEs to identify models of good practice, which were then implemented in their SEs (SE4 and SE15). This knowledge also helped SE20 to '*prevent duplication and ensure targeting the right people'*. By attending, or belonging to, SE networks and sectorial associations, participants mentioned using the knowledge acquired in allowing the SE to '*survive*' by '*being very aware of new kinds of funding, commissioning'* (SE10), and then adapting and updating their business plan *'hot off the press'*.

In the case of *tacit and explicit knowledge* acquired from the community and customers, including the operational knowledge involved, participants outlined certain activities that allow the SE to apply that knowledge and create value (see Appendix H Section 7 Page 356). These activities are grouped and described in **Table 6.3**.

Table 6.3 – Community and customer knowledge application activities

Outcome	Application activity
Business Opportunities	Developing reports that were presented to commissioners, who normally gave the contract to the SE because it had inside track of the information (SE10)
	Developing reports and selling them to government or developers interested in working with elderly people (SE3)
	Developing new services or products focused on current customers' needs and seeking possible new customers for those services in new areas (SE2, SE18 and SE10)
	Allocating new products in relation to how they are sold and how they have been demanded in the past (SE2)
Performance measurement	Measuring social impact (SE9, SE10, SE11, SE14, SE15, SE20 and SE21)
	Creating and measuring Key Performance Indicators that were used to adjust the strategic direction (SE5 and SE8)
Marketing	Providing evidence of the work that has been done by the SE as promotional and marketing material to potential funders, government and customers (SE8, SE13, SE14 and SE21)
	Lobbying (SE8)
Strategy	Planning strategic development of the community (SE5)
	Making 'educated business decisions' in terms of how to expand, where to expand and how to deal with organisation problems (SE2, SE8 and SE17)
Organisational improvement	Improving future service based on customer feedback (SE13)
	Performing stock management and negotiating prices with suppliers (SE13)

All the activities described in this section emphasised how SEs are using the knowledge they have regarding their customers, their services and their experiences to 'not re-inventing the wheel', and to adjust and define the operational and strategic direction of the SE. Moreover, this knowledge was used by SEs to measure their impact, which could determine the effectiveness of the SE, help the SE to legitimise itself, and be used as a marketing tool to obtain new customers and financial sponsors. In the words of SE1:

> *'I think it would helpful to know just how powerful knowledge could be, just not only about evidence of success or failure, but the opportunity to change direction or to evolve into another arena'.*

Regardless of these group of activities described by participants to apply their knowledge, some idiosyncratic characteristics of SEs may obstruct the effective application of this knowledge. The small size of SEs and the scarcity of economic resources can restrict the conversion, retention and further application of knowledge throughout the organisation, and even threaten its survival in the case of the holders of this knowledge leaving the SE.

6.1.2.6 Protection

As was explained in Chapter 3 (Section 3.2.2.4 Page 78), it is agreed that organisations should protect their knowledge from inappropriate use, both internally and externally, as well as from losing it, in order to improve organisational outcomes and develop competitive advantages (Gold *et al.*, 2001; Lee and Sukoco, 2007; Mills and Smith, 2011). Thus, a hypothesis was proposed predicting a positive relationship between protection activities and the development

of PC in SEs.

Data analysis in Phase 1 rejected this hypothesis (Factor loading = 0.56), indicating that protection activities undertaken by SEs did not develop PC. By analysing the answers given by respondents in Phase 1, it can be inferred that SEs have a moderate level of activities for protecting knowledge from inappropriate or illegal use (PR1 Mean = 3.8), restricting access to information (PR2 Mean = 3.6), and communicating the importance of protecting knowledge (PR3 Mean = 3.6). As can be observed in Table 15 (Appendix G Section 6 Page 326), these activities scored the lowest values from all knowledge activities included in the questionnaire, denoting that SEs may not give the same importance to protecting knowledge as to acquiring, converting and applying it. This evidence, therefore, demonstrates that SEs did not develop PC through knowledge protection activities, mainly because they did not have sufficient of those activities within their operations.

Among the few protection activities described by participants in Phase 2, some of the most common associated with explicit knowledge were:

- Using passwords in systems to restrict access to explicit knowledge and information kept there (SE10);
- Having protocols in place for permission to access sensitive data (SE10 and SE11); and
- Encrypting the information in computers often (SE8).

The main reason for keeping data protected in their systems was the data protection policy/act signed with service users (SE8 and SE10). This policy prohibited the SEs for sharing customers' information with third parties, due to the sensitivity of the information managed by the SE.

In the case of tacit knowledge, only one participant, SE10, described having a practice in place that did not protect the knowledge itself embedded in people's head, but did protect the enterprise from the loss of that knowledge. This was obtained by having an insurance policy that covered the financial damage of losing information and knowledge from key members if they die. Although this practice demonstrated that the SE was aware of its tacit knowledge, it was though a corrective practice rather than a preventive one. Similarly, this SEs has developed a franchise model of their SE, which included manuals and handbooks with all the practices, experiences and processes undertaken in the SE. In order to maintain the competitiveness of this model, the SE also decided to protect it through a trademark (see Example 10).

Example 10: SE10

The Social Enterprise of participant SE10 provides research-based, community/family, therapeutic and mental health services. These services are focused on people who experience depression, anxiety and low self-esteem. Having existed for eleven years, the SE has developed innovative models of service delivery, community participatory research, mental health provision design and development of services.

To manage their explicit knowledge, the SE has centralised systems to acquire information from customers and their relationship with the SE, services and operations. Confidential data are under the Data Protection Act, secured with passwords and access control, and all employees have to be CRB (Criminal Records Bureau) checked. The information and knowledge acquired is used to measure the social impact of the SE, so:

> *'… we are able to say we have helped, say, 1,200 people. We were able to help 50 victims of domestic violence, we help them to rebuild their lives. We helped, say, 28 perpetrators of domestic violence to not be violent anymore and actually have positive relationships. We helped 28 children in care to be reunited with their family.' (SE10)*

To manage their tacit knowledge, the SE has regular meetings, which are minuted, recorded and shared. The meetings help to 'cascade down' knowledge from certain employees, like the CEO. This is supported also with succession plans.

In 2009, the SE received a major investment from a well-known institution to develop a social franchise model. The model enables mental health professionals and service users to establish community-based, professional, mental health services. The reasons for developing this model was related to their knowledge, as the CEO expressed:

> *'We believe we have a lot of intellectual property, we have a trademark, we currently being protecting that trademark, and we also have a unique way of working, which is an approach which developing sort of manuals and books about that, that we can actually get an income from, being a pioneer in mental health. What we are trying to do, I suppose, is to capitalise on our intellectual property in the organisation' (SE10).*

Apart from supporting their scale up and ensuring replication of their innovative model, the franchise model allowed them to acquire and convert their knowledge. As SE10 explained:

> *'… look at how we record things, because this would going to replicate some things, you've got to have some kind a manual. So we are developing a sort of manual of everything, which then involves me filling in the gaps that we haven't got' (SE10).*

Despite these few protection activities, participants did not mention extended practices to protect knowledge, either explicit or tacit, internally. One possible reason for this was suggested by participant SE11, who reflected that:

> *'Because we are such a small crew, then basically it's not necessary for us to keep all sorts of levels of information within our team'. (SE11)*

This may imply that in smaller SEs, in this case a micro SE, there is no reason for restricting information or knowledge to some members of the SE, because all members are actively involved in the operation of the SE. Thus, only activities associated with external protection of knowledge are required.

Conversely, another possible reason for not finding knowledge protection activities to develop PC in SEs could be that, by having an open and collaborative culture based on trust, SEs did not require to keep a 'knowledge-protection' attitude among its members, encouraging instead, a more 'knowledge-sharing' attitude. This echoed previous studies on KM, which theoretically and empirically demonstrated that increasing knowledge protection will decrease knowledge transfer (Norman, 2004; Khamseh and Jolly, 2008), sharing (Randeree, 2006), and integration (Liao and Wu, 2010). This may be because, by limiting the access to knowledge, the organisation is hindering its ability to transfer knowledge and learn from members or stakeholders. Thus, members and stakeholders will respond to the SE limitations of information sharing by further reducing their own sharing, which will be detrimental to knowledge production.

Overall, both Phase 1 and Phase 2 assessed the group of factors that may result in the development of PC in SEs. These are:

- Knowledge acquisition activities;
- Knowledge conversion activities; and
- Knowledge application activities.

Although empirical findings detailed how SEs were mainly acquiring knowledge, and not necessarily converting, applying and protecting it, there were certain types of knowledge that were acquired or created by the SE and then applied directly into their operations and services. Among others, these types of mechanisms will help SEs to conserve acquired knowledge and to retrieve it when needed (Alavi *et al.*, 2005). Nevertheless, as was outlined in Section 6.1.2.2 (Page 206), participants of Phase 2 corroborated that SEs did not follow the formal and recognised practices of KM. Instead, they developed more informal activities that support the

management of knowledge but are not visualised as such. This can imply that, as was found in SMEs (Uit Beijerse, 2000), SEs are using KM more at an operational level, rather than at strategic and tactical levels of the organisation.

6.1.3 Organisational Performance of Social Enterprises

The KMC-SE Conceptual Model proposed that the development of Knowledge Management Capabilities (KMCs) resulted in the improvement of organisational performance of SEs. This hypothesis was originally based on the extensive literature review in Chapter 2 and 3 of both theoretical and empirical studies, which suggested and tested the relationship between KM, as an organisational capability, and organisational outcomes, such as organisational performance.

By analysing the data collected in Phase 1, the SEM analysis demonstrated that SEs were improving their Organisational Performance (OP) by developing KMCs, which were integrated by OC and PC. The resulting group of indicators of the dependent variable OP comprised:

- Return and resources: Creation of social/environmental value, income, expenditure and workforce;
- Stakeholder environment: Stakeholder and consumer satisfaction; and
- Internal activities: Ability to deal with change and teamwork.

The first implication of the findings from Phase 1 points towards both financial and non-financial measures of a SE's performance that were improved to a certain degree by having OC and/or PC. This finding concurred with previous KM studies in larger enterprises, which found similar effects of KMCs on organisational outcomes (Gold *et al.*, 2001; Lee and Choi, 2003; Lee and Lee, 2007; Zaim *et al.*, 2007; Mills and Smith, 2011). From the proposed indicators on the KMC-SE Conceptual Model, only one was found not to be influenced by the development of KMCs in Phase 1. This was an indicator of the variable 'Resources and Innovation', that is, the introduction of new products.

This finding and the general influence of KMCs in OP were explored further in Phase 2. This phase investigated experiences and members' perceptions of the organisational benefits associated with the effective management of their knowledge. As was described in Chapter 5 (Section 5.2.4 Page 170) and has been discussed in Section 6.1.2.5, participants supported the findings from Phase 1 by giving examples and reflecting on their practices. For instance, participants described how they were receiving income from managing the information and knowledge they have, such as, selling research reports to government agencies, or developing franchise models. In terms of social value creation, participants also explained how, by sharing

and managing knowledge, they were achieving their social objectives (see Appendix H Section 7 Page 356).

In Phase 2, participants referred to 'legitimacy' as an important element when assessing the performance of their SEs, followed by effectively managing knowledge. This concept was not included in the original KMC-SE Conceptual Model, and therefore, not assessed with the quantitative study. Nevertheless, participants in Phase 2 described how, by taking advantage of their tacit knowledge, such as members' expertise, as well as their explicit knowledge, such as costumers' evaluations, their SEs were gaining a certain reputation and credibility that was crucial to achieve both social and economic objectives.

Legitimacy has been studied previously by SE contributors, highlighting the importance of building capabilities and developing strategic linkages to ensure the survival of their activities, including building legitimacy and trust (Nicholls, 2010; Larner, 2012; Vickers and Lyon, 2012). Vickers and Lyon (2012) emphasised that legitimacy is crucial when working within the immediate supportive communities of interest. However, beyond this group, growth will be dependent on the development of competitive advantages, including the support of networks and key actors. Taking this into account, it can be deduced that, by developing KMCs, SEs can transform their 'self and community legitimacy' in competitive advantages that will guarantee the survival and future success of the SE. This suggests that, in future studies, it may be important to evaluate the possible impact of KMC development in the SE's legitimacy, as a measure of its organisational performance.

Regarding the variable associated with innovation, participants of Phase 2 detailed some examples where the management of their knowledge resulted in the development of new products, or the improvement of the current products or services (see Appendix H Section 7 Page 356).

Therefore, innovation was viewed as a consequence of the learning process, as well as the creation and application of new knowledge (Schoonhoven *et al.*, 1990; Sarin and McDermott, 2003). This finding accords with the KM literature that increasingly reveals a relationship between creation, acquisition, conversion and application of knowledge with the innovation process (Cohen and Levinthal, 1990; Nonaka, 1994; Leonard-Barton, 1995; Galunic and Rodan, 1998; Johannessen *et al.*, 1999; Von Krogh *et al.*, 2000; Hall and Andriani, 2002; de Lima *et al.*, 2003; Gray, 2006; Yao-Sheng, 2007; Chu *et al.*, 2010; Donate and Guadamillas, 2010; Liao and Wu, 2010; Al-Hakim and Hassan, 2013). As SE10 asserted:

> *'As a small organisation in quite a competitive market, we survive by being innovative, by doing things that other organisations are not doing, by reaching services to people*

> *who are not getting services, and by being a quality standard. We can't always complete with price, we are not big enough really, so we have to compete on quality. Our niche, really.' (SE10)*

These examples suggest that, although the variable innovation was found not to be influenced by the development of KMCs in Phase 1, there may be other instances of innovation, different from 'the introduction of new products', that could be considered in future studies as measures of SEs' organisational performance.

Summarising, it can be inferred that, based on findings in Phase 1 and Phase 2, as well as the well-supported empirical and theoretical evidence, the development of KMCs improves the organisational performance of SEs in terms of: creation of social/environmental value, income, expenditure, customers and stakeholder satisfaction, ability to deal with change and teamwork.

6.1.4 Contextual dimensions

As was specified in Chapter 3 (Section 3.4.1 Page 87), KM practitioners have argued that each organisation is unique in the way they can achieve the outcomes of managing effectively their knowledge, as well as the way they manage it (Durst and Edvardsson, 2012). This is because each enterprise has different organisational characteristics, and is embedded in different economic and social environments that influence them significantly. Because the purpose of this study was defining how SEs could develop KMCs that improve their performance, it was essential to include the possible variations in organisational settings, as well as environmental context into the development and further corroboration of the KMC-SE Conceptual Model. Four contextual dimensions were studied. These are: size of SE, age of SE, impact of economic climate and external support.

Phase 1 offered a first attempt to elucidate the important influence of these dimensions for SEs as well as their influence on some variables of the KMC-SE Conceptual Model. These relationships were analysed in Chapter 5 (Section 5.1.5 Page 147) and discussed alongside each variable in this Chapter. For instance, more than half of the respondents (67%) expressed having received at least one type of support, such as, business consultation, formal and informal training, and/or financial resources, from SE networks and other organisations. The most common support received was business consultation.

Phase 2 corroborated these findings by outlining the different behaviours of each SE according to their particular contextual dimensions (see Chapter 5 Section 5.2.5 Page 174). For example, significant differences were found between micro, small and medium SEs regarding their level of IT support, conversion activities, such as, succession planning, and performance. Similarly,

external support played an important role in knowledge activities, such as, acquisition, as well as in organisational capabilities, such as training and development.

Regarding external support, the findings from both Phase 1 and Phase 2 agreed with previous studies in SEs (Haugh, 2005; Bull and Crompton, 2006; Chell, 2007; Shaw and Carter, 2007; Meyskens *et al.*, 2010b; Vickers and Lyon, 2012). These studies suggested that SEs learned tacitly through collaborations and partnerships with other organisations in terms of both service delivery and in dealing with management and organisational issues, preferring this method normally over formal training, business consultants, advisors and educational institutions.

This study found how these external organisations provided SEs with the knowledge required to:

- Acquire market and customer information;
- Identify opportunities locally;
- Provide introductions to possible funding sources;
- Generate local support for the enterprise;
- Develop cooperative relationships with other SEs and organisations; and
- Build and enhance legitimacy.

All of these resulted in certain improvements of SEs financial and non-financial performance. This justifies why a great number of participants described receiving some sort of support from external organisations. A possible motivation was suggested by SMEs contributors (Lim and Klobas, 2000; Egbu *et al.*, 2005; Chen *et al.*, 2006; Shaw, 2006; Perez-Araos *et al.*, 2007; Hutchinson and Quintas, 2008; Durst and Edvardsson, 2012; Gharakhani and Mousakhani, 2012; Choudrie and Culkin, 2013), who recognised that, because SMEs have normally limited resources to generate new knowledge, they are forced to use external knowledge creation sources, and to develop absorptive capacity, which is the ability to absorb information from external sources (Cohen and Levinthal, 1990). Although this reality can be translated into SEs, which are characterised by limited human and economic resources, and therefore less capacity to produce knowledge internally, participants did not explain or offer explicit examples of how they were developing this absorptive capacity. As Cohen and Levinthal (1990) defined, organisations need prior, related knowledge to assimilate and use new knowledge. But, as was defined previously, SEs were not always aware of the knowledge they have, reducing the possible advantages that acquiring external knowledge can offer to the SE, such as, allowing the implementation of new knowledge, disseminating new knowledge internally and making use of new resources (Gray, 2006).

As Wang and Ahmed (2003) suggested, another reason why SEs were constantly absorbing knowledge from external actors could be associated with the openness of their organisational structure, the ambiguity of their organisational boundaries, as well as the competitiveness of the environment. This implies that SEs were developing informal, personal and behavioural linkages with external sources, which were necessarily voluntary, explicit and transparent. Compering these findings with previous SE studies, it can be recognised how SEs are exposed to a competition and a performance driven environment, but at the same time belong to a sector that encourages collaboration and camaraderie (Paton, 2003; Jones and Keogh, 2006; Bull, 2007; Doherty *et al.*, 2009).

However, external actors were not always a source of transparent and collaborative support (see Appendix H Section 7 Page 356). SEs do not only trade and work within the SE sector, thus, it is expected that SEs have to operate in different sectors where collaboration principals are not a normal rule. Therefore, SEs were required to accommodate their commercial practices to the competitiveness of their specific niches. This gives more support to the proposition that SEs are required to develop competitive advantages by developing KMCs, which will allow them to compete in different markets more effectively.

Overall, contextual dimensions were found to play a significant role in how SEs were developing KMCs, as well as how this development was improving their performance. Taking into consideration the size and age of the SE, this can influence the amount of resources, experience, information and knowledge available to the SE, influencing their degree of involvement in knowledge activities. As SE17 stated:

> *'… people find it very difficult to write things down and others are kind of better at it. I think, in a small company you are always very busy and so you have to really force yourself to prioritise things like that. Because we have more urgent things to do than sitting writing some briefing notes. It's quite a tough challenge for people.' (SE17)*

Additionally, empirical data collected in Phase 1 and 2 corroborated how SEs were actively involved and acquiring knowledge from SE networks, other SEs, associations, government agencies, and even their personal networks. This knowledge was supporting the SE to improve their performance and developing certain competitive advantages that would guarantee the SE's continuing existence. These findings also contribute to the current, limited research regarding how networking plays a supportive role for SEs in identifying opportunities, and providing resources and business advice to social entrepreneurs (Haugh, 2005; Spear, 2006; Mendell, 2007).

Nevertheless, it is important to emphasise that, although participants recognised the importance of external sources in providing information and knowledge to the SE, SEs are

required to work considerably more on developing absorptive capabilities that can be associated with PC. This absorptive capability is a function of the SE's existing resources, existing tacit and explicit knowledge, internal routines, management competences and culture (Gray, 2006). This justifies the importance of developing PC that allows SEs to acquire, assimilate, transform and exploit available external knowledge.

6.2 Development of the KMC-SE Model

The previous analyses and discussions of the elements of the KMC-SE Conceptual Model permitted the testing and assessment of the model. These analyses explained the process of developing KMCs in SEs and permitted the identification of the organisational outcomes of such development, as well as the implication of contextual variables into the model. As was defined in Chapter 3 (Section 3.1 Page 48), the development of the KMC-SE Conceptual Model followed the methodology for theory building proposed by Lynham (2002). As Holton and Lowe (2007) defined, an important stage in this methodology is the actual modification of the developed conceptual model based on its empirical assessment. Therefore, the proposed, empirically assessed KMC-SE Model is presented in **Figure 6.3**. The obtained model integrates the previous discussion about each element of the model, outlining the final components of each capability, the sequence obtained to develop KMCs, and the inclusion of external sources as contextual factors affecting the KMC development.

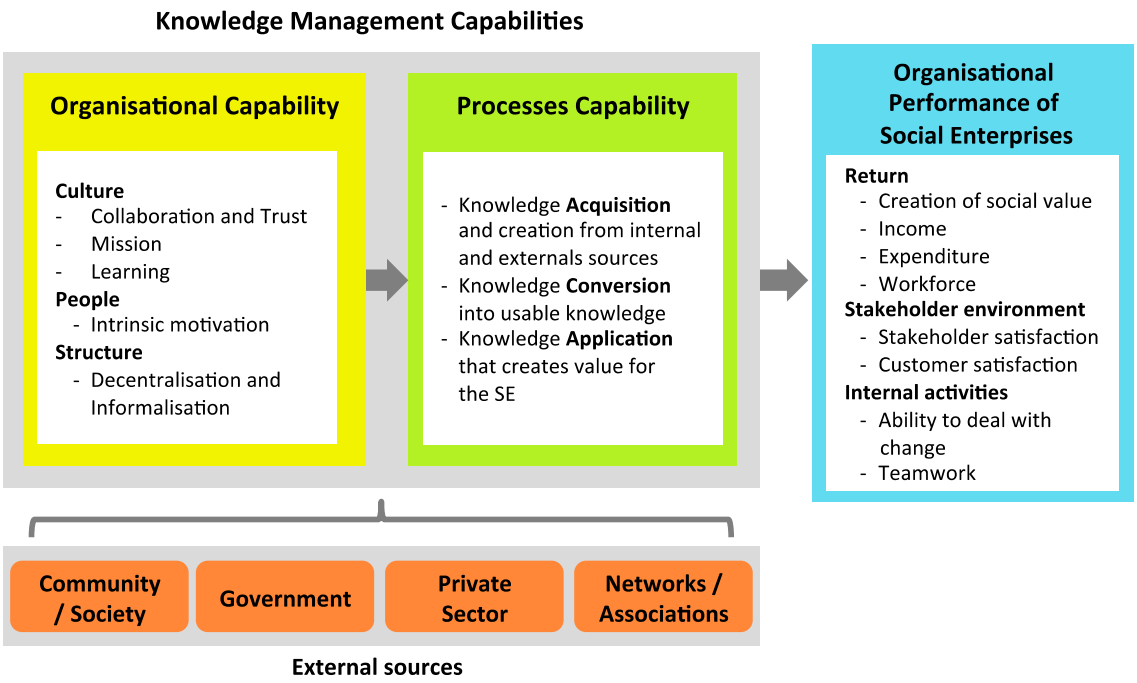


Figure 6.3 - KMC-SE Model

The KMC-SE Model proposed two capabilities that develop KMCs: organisational capability and process capability. However, contrasting with the conceptual model developed in Chapter 3, the empirical evidence suggested that, in order to develop KMCs in SEs, it is required to, first, guarantee the development of the organisational capability, and then concentrate on developing the processes capability.

This finding concurred with the KMC model developed by Lee and Choi (2003), as revised in Section 2.4.4.3 (Page 42), and its further examination by Lee and Lee (2007). The model theorised and empirically demonstrated in large organisations that organisational capabilities may have an effect on PC, and then successful PC may have an effect on KM performance. Similarly, the new path obtained in the final KMC-SE Model contrasted with the KMC model proposed by Gold *et al.* (2001) discussed in Section 2.4.4.2 (Page 41) and further validated by Mills and Smith (2011). They found the development of both OC and PC simultaneously influenced organisational performance in large organisations.

This new sequence of events, in combination with an active participation and awareness of external sources, will result in the improvement of organisational performance of SEs. The inclusion of the contextual dimension, namely external sources, into the KMC-SE Model was supported in the empirical evidence. This suggested the important role of these actors in providing, facilitating and, in some cases, restricting, the access and share of knowledge within the SE.

With the KMC-SE Model presented in **Figure 6.3**, the third objective of this research, the development of a final conceptual model, is achieved.

6.3 Conclusions of Chapter 6

This chapter discussed the main empirical findings of this research and their relationship with literature reviewed on both KM and SE. This discussion resulted in the creation of conceptual and practical approaches that defined some of the most important contributions, and achieved the second, third and fourth objectives, of this study.

The assessment of the KMC-SE Conceptual Model, the second objective, was based on evidence collected and analysed from Phase 1 and Phase 2, in combination with previous studies in KM, SMEs, NPOs and SEs. The assessment indicated the importance of combining both quantitative and qualitative data to obtain a unique, holistic and contextual understanding of the elements that truly develop KMCs in SEs.

Furthermore, the assessment established the similarities and dissimilarities of SEs and other organisations, such as, private SMEs and NPOs, and corroborated the idiosyncratic character of SEs. On one hand, some of the main similarities were associated with the informality of current KM practices identified in SEs, the lack of human and economic resources that affect crucial decisions in the SEs, and the strong reliance on tacit knowledge to operate the SEs. On the other hand, one of the main differences rested in the tension between social and economic objectives that permeates the organisational foundations of SEs, affecting their culture, their structures, their members' motivations and engagement, and their relationships with stakeholders.

This assessment served as the foundation for the KMC-SE Model, the third objective, which explains the elements that develop KMCs in SEs, their possible outcome, and the influence of contextual elements in this development.

Chapter 7

Conclusions and Recommendations for future research

This final chapter concludes the research undertaken in this study and presents its main contributions. The aim of this chapter is twofold. To summarise and evaluate what has been accomplished throughout the process of this study, and, to propose areas of future research. The first section provides a brief summary of the document. Sections 7.2, 7.3 and 7.4 present the main findings and the contributions of this research, as well as the research impact on academics, practitioners, government and associations. The two main contributions of this study are (1) the KMC-SE Conceptual Model that describes the development of KMCs in SEs; and (2) the empirically assessed KMC-SE Model that defines the elements that can develop KMCs in SEs and the expected outcome. Lastly, Sections 7.5 and 7.6 consider the limitations of the study and provide suggestions that can be used as a basis for future research in the area of KM and SEs.

7.1 Research overview

Chapter 1 is an introduction to the research topic, describing the aims, objectives and motivations that guided the research process. Two academic and practical matters served as justification for this study. The first matter is associated with the proposition offered in the Knowledge-based View (KBV) theory that, by developing Knowledge Management Capabilities (KMCs) an organisation can obtain organisational outcomes, such as competitive and sustainable advantages and/or improving organisational performance. However, there is still a need for more empirical evidence of how to develop these capabilities, such as, measurable evidence of their impact in organisations, and their feasibility and application under different organisational settings from the already studied large private and public firms. The second matter is related to Social Enterprises (SEs) as organisations that perform and trade as businesses but with main objectives defined by the creation of social and environmental value. There is a growing interest by government and academics in exploring the idiosyncratic characteristics of these organisations due to their important role in alleviating current societal problems. Thus, more exploration is required in understanding these organisations and finding practical frameworks and strategies for their enhancement and further maximisation of their social and environmental impact.

Taking into account these matters, the aim of this study is to identify the organisational conditions and knowledge activities that can develop KMCs and improve organisational performance of SEs. In doing so, a conceptual model for the development of such capabilities in SEs is created.

The literature review discussed in **Chapter 2** is concerned with describing the intellectual framework and literature background of this research. Following a systemic approach, the review consisted of three complementary reviews that determined: (a) the current stage of SE as an academic field, confirming the necessity for more empirical evidence that demonstrates how these organisations operate and perform, as well as the paucity of literature relating KM with SEs; (b) the minor attention given to KM strategies in similar organisations to SE, such as Social Economy organisations. The studies recognised the potential of KM in improving public legitimacy, lowering operational costs, and developing capability to create social value in this type of organisations. Nevertheless, there were possible limitations associated with financial constraints and some resistance to information sharing; and (c) the Knowledge-based View (KBV) theory and Organisational Capabilities theory confirmed knowledge as an organisational capability that can lead to improvements in organisational performance, as well as defining the components that integrate such capabilities for their further development. However, there was a scarcity of empirical evidence that demonstrated the outcomes of KMC development,

the organisational elements and knowledge activities that trigger this development, and their implications for small and medium size organisations, as well as enterprises with different strategic orientations.

In order to address the issues that arose in Chapter 2 and to achieve the first objective of this research, the KMC-SE Conceptual Model (Knowledge Management Capabilities in Social Enterprises) was developed in **Chapter 3.** The model describes the components that integrate a KMC and its relationship with organisational performance in SEs, taking into account SEs' unique strategic and operational characteristics. Considering previous KMC models, such as, Leonard-Barton (1995), Gold *et al.* (2001) and Lee and Choi (2003), the development followed the general method of theory-building proposed by Lynham (2002). The KMC-SE Conceptual consisted of three key elements, organisational capability, processes capability and organisational performance. The first element represents the organisational dimensions, namely, technology, people, culture and structure, that are required for knowledge processes, that is, acquisition, conversion, application and protection, to develop KMCs, which consequently improve the organisational performance of SEs. The conceptual model integrates the current theoretical and empirical evidence of each element of the model both in the KM literature and the SE literature. An operationalisation of the conceptual model was defined, resulting in the floating of twenty-one hypotheses that facilitated the empirical assessment of the model.

Chapter 4 justifies and describes the research strategy assumed in this study. Following a critical realism paradigm, a mixed methods sequential explanatory design was selected to guide the empirical exercise of this research. This approach permits a more holistic understanding of KMCs in SEs by (a) allowing the assessment of existing theoretical assumptions in the context of SEs through a quantitative survey questionnaire, and (b) permitting the interpretation of these findings under the particular reality of SEs through qualitative in-depth interviews.

Chapter 5 reports the empirical findings of this research. The quantitative analysis of the responses from 432 senior members of SEs in UK to the SurveyMonkey questionnaire was undertaken using Confirmatory Factor Analysis (CFA) and Structure Equation Modelling (SEM). These analyses permitted the validations of the KMC-SE Conceptual Model and the testing of the twenty-one hypotheses. The analysis resulted in the acceptance of eleven hypotheses, six not supported and four created as alternative hypotheses, determining that the variables 'T-shaped skills', 'Extrinsic Motivation', 'Technology' and 'Protection' did not have influence on KMCs. Moreover, a mediating or indirect effect of the Organisational Capability (OC) in Organisational Performance (OP) through its effect on Process Capability (PC) was found.

These differences were expected because the conceptual model was developed under theoretical assumptions drawn from previous KM research in other sectors and types of organisations. Subsequently, the qualitative phase of this study consisted of 21 interviews with respondents of the survey questionnaire that allowed the further explanation and understanding of the quantitative findings. These interviews were analysed employing coding strategies based on both deductive and inductive codes.

Chapter 6 is concerned with the second, third and four objectives of this research. To validate the KMC-SE Conceptual Model developed in Chapter 3, each variable of the model was discussed, integrating both qualitative and quantitative findings with previous literature. This discussion resulted in the creation of a KMC-SE Model that outlines the final components of each knowledge capability, the sequence obtained to develop KMCs, and the inclusion of external sources as contextual factors affecting the KMC development.

7.2 Research findings

- Through a bibliometric analysis of SE literature, it was determined that the study of SEs, as a discipline, is maturing, with theory development followed by empirical testing and validation, generating an increase in consensus on the boundaries of the field. Nevertheless, the review confirmed that there is a need for empirical research that employs more sophisticated analysis approaches, hypothesis testing, proposition generation and stronger and more adaptable research designs (Granados *et al.*, 2011). These recommendations were taken into account when defining the research strategy of this study, by employing more generalisable, but at the same time, inclusive and contextual research design. The bibliometric analysis also confirmed the paucity of research relating KM with SEs.

- A systemic review of theoretical and empirical studies of KMC development specified: (a) the lack of general agreement in the elements that form such capabilities and their possible impact in enterprises; (b) the necessity for operationalisation of such models; (c) the lack of contextual and organisational elements that can moderate the relationship between variables; and (d) the need for more empirical evidence demonstrating the impact of KMCs in micro, small and medium size enterprises, and organisations with multi-strategy and multi-stakeholder priorities. This was addressed in this study by developing the KMC-SE Conceptual Model supported by previous KM and SE studies. The conceptual model provided an operationalisation with well-defined hypothesised relationships between elements of the model and the inclusion of contextual dimensions. Additionally, because of their importance in developing KMCs under the idiosyncratic characteristics of

SEs, the proposed KMC-SE Conceptual Model included new elements that were omitted in previous KMC models. These were: the dimension of 'People', integrated by T-shaped skills and extrinsic and intrinsic motivation; the element 'Mission' as a measure of the cultural dimension; the creation of social and environmental value as measures of organisational performance; and contextual factors that can influence the KMC-SE Conceptual Model.

The development of the KMC-SE Conceptual Model achieved the first objective of this study.

- The quantitative data collected and analysed in this study demonstrated that SEs are developing some KMCs that have created overall improvements in their perceived performance, of up to 20%, based on a year-to-year comparison. Furthermore, the SEM analysis confirmed the expected outcome that empirical data did not fit completely the KMC-SE Conceptual Model. The redefined SEM model suggested that, in order to develop KMCs, SEs require having certain organisational pre-conditions, which are the bases for the further development of knowledge activities. It is through this sequence of progress that KMCs can be developed in the SEs' context to enhance their performance. Other differences were associated with the elimination of the variables 'Technology', 'Extrinsic Motivation', 'T-shaped skills', 'Protection', and 'New product development'.

- The qualitative phase of this research explored further the findings from Phase 1. It demonstrated that SEs are proactive in managing some of the knowledge they have, without necessarily being labelled 'Knowledge Management', but is expressed more informally as general practice of the organisation. This demanded the study of KM activities in SEs from both formal and informal approaches. Additionally, the qualitative analysis provided evidence of crucial role of external sources in providing knowledge to SEs.

Both quantitative and qualitative studies permitted the assessment of the KMC-SE Conceptual Model, and the achievement of the second objective of this study.

- By integrating both quantitative and qualitative empirical evidence, the KMC-SE Model was proposed. It recommends certain organisational elements that are required before devoting efforts in implementing knowledge activities, thus, developing KMCs that improve performance of SEs. The organisational elements are:
  - Collaborative and trustful working environment
  - Clear and shared mission and vision

- Training and development plans
- People intrinsically motivated
- Decentralised structure

These elements facilitated and optimised the implementation and impact of activities for knowledge acquisition, conversion and application. More importantly, the SEs are required to have an active participation and awareness of external sources, such as, networks, associations, government, private firms and communities, which can provide and facilitate, but, in some cases, restrict, access to, and sharing of, knowledge. Lastly, the KMC-SE Model defines the elements of SEs performance that can be enhanced by the development of KMCs. These are: the creation of social value, income, expenditure, workforce, stakeholder and customer satisfaction, ability to deal with change and teamwork.

The development of the KMC-SE Model achieved the third objective of this study.

- This study provided empirical evidence of the idiosyncratic characteristics of SEs, demonstrating some of their similarities and dissimilarities with other organisations, such as, private SMEs and NPOs. The similarities were associated with the informality of current KM practices identified in SEs, the lack of human and economic resources that affect crucial decisions in the SEs, and the strong reliance on tacit knowledge to operate the SEs. One of the main differences rested in the tension between social and economic objectives that permeates the organisational foundations of SEs, affecting their culture, their structures, their members' motivations and engagement, and their relationships with stakeholders. These differences validate the originality of this research, since, for the first time, it transfers the business practice of KM into SEs.

7.3 Research contributions

The main findings of this research have extended the frontier of knowledge by producing the following two original contributions to the fields of SEs and KMCs. These contributions are based on: the systemic review of KM and SE literature in Chapter 2, the development of the KMC-SE Conceptual Model in Chapter 3, the research strategy in Chapter 4, the quantitative and qualitative analysis in Chapter 5, and the assessment of the KMC-SE Conceptual Model and definition of the KMC-SE Model in Chapter 6.

i. Knowledge Management Capabilities in Social Enterprise (KMC-SE) Conceptual Model

The KMC-SE Conceptual Model is a new, comprehensive, conceptual framework that describes, in an operationalised form based on theoretical assumptions, the elements

that can develop KMCs in the new and under-researched organisational settings of SEs. Moreover, the conceptual model presents the possible outcomes of this development in the organisational performance of these enterprises. This represents the design and exploration of KM theories that meet the needs of micro, small and medium size enterprises with multi-strategy and multi-stakeholder dimensions, such as SEs.

ii. Empirically assessed Knowledge Management Capabilities in Social Enterprise (KMC-SE) Model

This study has empirically established the organisational pre-conditions that are required to trigger knowledge activities, which together form KMCs, and their positive impact on organisational performance of SEs. The KMC-SE Model proposes new insights in the traditional way of approaching KM and KMC development, highlighting (a) the important role of human and cultural factors, giving less emphasis to extrinsic motivations and technology, (b) the importance of studying informal KM practices, and (c) the essential inclusion of external dimensions into the equation. The KMC-SE Model also presents empirical evidence of the idiosyncratic organisational characteristics of SEs, in terms of their practices, operations, and performance measures.

7.4 Research impact

The findings and knowledge contributions of this study can have a significant impact in three different entities: KM and SE academics and researchers, SE practitioners, and SE supportive organisations, such as, government institutions, private sector, associations and networks.

For KM and SE academics and researchers

Considering KM theory, this research provides rich and contextual evidence of how KMCs can improve organisational performance in a firm. This knowledge and evidence establishes a starting point and further justification of the importance of approaching KM, not only as an organisational strategy, but as an organisational capability that is embedded into the firm. Furthermore, this study expands current knowledge related to the elements that create and develop KMCs, organisational conditions and knowledge activities, and their positive impact on the organisational performance of an enterprise. This contribution is in the form of a new model tested and assessed with empirical evidence from SEs in UK. This understanding is framed in the complex context of SEs.

The empirical exercise of studying KM practices in SEs resulted in two important implications for KM researchers investigating similar firms, such as, SMEs or NPOs. The first implication is

associated with the finding that SEs, as small firms, possess informal KM practices that are embedded into their organisational practices and routines, which are not necessarily conceived as KM strategies themselves. This demonstrates the importance of studying not only formal, but also informal KM practices, in order to obtain a real and accurate understanding of how small firms are managing their knowledge and its impact in the firm. The second implication refers to the importance of including contextual and external factors in studying KMCs, and generally in implementing KM strategies in organisations. As was observed in the literature review of this research, these factors have received little attention in the literature, but, as was established with the empirical evidence, they play a crucial role in facilitating the development of KMCs. Thus, the awareness of these factors is important for researchers and consultants in studying and analysing the different processes for KM within and outside organisations.

Regarding SE theory, the study offers a deeper understanding of organisational and idiosyncratic dynamics of SEs, from the Knowledge-based View (KBV) theory perspective. This is achieved by the bibliometric analysis of the current intellectual structure of the academic field of SEs, the extensive literature review of the organisational characteristics of SEs, and the evidence provided with the empirical assessment of the conceptual model. This has implications in the development of further informed, relevant and accurate research that support those seeking to learn more about SEs.

Regarding KM and SE research, in the majority, both academic fields have been undertaken under mono-method design (Serenko *et al.*, 2010; Granados *et al.*, 2011). However, there are elements from both subjects that require a more critical realistic position, including both objective and subjective approaches to understand the research problem and their different realities. Therefore, as this research has proposed, it is important to employ mixed methods research design in the development and assessment of conceptual models in KM and SE. More specifically, an explanatory, sequential design, that is based on a quantitative assessment of conceptual elements and a qualitative analysis to understand the results of the quantitative study in the context of SEs.

For Social Enterprise practitioners

The practical impact of this research for SE practitioners is defined by the application of the KMC-SE Model. As was established in this study, SEs should assume more business orientated strategies, such as KM, so that they can improve their performance and enhance their creation of social, environmental and economic value. Additionally, as participants shared, the current economic and social scenario requires the development of more competitive and sustainable advantages, which can be defined by the management of their valuable knowledge of

practices and stakeholders. This justifies the need for developing KMCs in SEs. It was noted that this was also recognised by participants as a necessity for them, so that they could 'know what they know'. In order to facilitate this development, this research provides an empirically assessed model, which describes the key elements that support the development of KMCs and their possible outcomes for the SE. This can help SEs to evaluate their current KMCs and to develop plans for their further improvement.

For Social Enterprise supportive organisations – government, private sector, associations and networks

The findings from this research, specifically the evidence of SEs' organisational characteristics and their type of knowledge required or managed, may prove useful to decision-makers and managers in organisations supporting SEs when defining programmes and proposals for enhancing and supporting the sector. These organisations can transform the KMC-SE Model into a more practical framework that can help them to identify potential areas of improvement and then to define relevant and applicable plans of action.

7.5 Limitations of the research

This research presented some limitations that have a degree of impact on the results, and certain lessons emerged from it. These limitations are classified into conceptual and methodological difficulties and are summarised below.

Conceptual limitations

Because of the limited research in organisational characteristics of SEs, and more specifically, their KM practices, the initial KMC-SE Conceptual Model and its further assessment with empirical data may have omitted other important elements that were particular to these organisations in their development of KMCs, as well as their performance measures. Therefore, the obtained KMC-SE Model needs to be considered as only a starting point in the study of KM in SEs.

Another possible limitation of the KMC-SE Model is the inclusion and assessment of different contextual variables, not included in the model, as mediating variables. These variables could include the SE sector itself, and the total number of personnel involved, including volunteers.

Methodological limitations

As it was defined in Chapter 4, the mixed methods strategy was followed because it permitted the study of the research problem from both objective and subjective perspectives. Moreover,

the qualitative phase, which was particularly focused on KM and organisational elements in the unique context of SEs, helped to overcome some possible bias inherent in universalising the variable-orientated quantitative phase (Maxwell and Mittapalli, 2010). However, Tashakkori and Teddlie (2010a) argued that mixed methods research is still subject to specific limitations in the design, implementation and further interpretation of quantitative and qualitative methods.

The first limitation could be associated with sample selection and sample size. Starting with the sample selection, because of the difficulties in identifying SEs, as defined in this study, the sample frame was based on SEs that belonged to UK-listed, SE networks. This limited the sub-sample to only those enterprises, leaving out other possible SEs that are not members of such networks, or that join them after the list of SEs was obtained from the networks. However, as was identified in the State of Social Enterprise Survey 2011 (Villeneuve-Smith, 2010), the majority of SEs belong to national or regional SE bodies, such as SE networks.

Although the response rate in Phase 1 was good for an online survey, the sample was still non-representative of the population. This was partially overcome by adopting a probability sampling scheme that has more opportunity that non-probability sampling of keeping sampling error under control, and permits the use of statistical significance to be inferred from the sample (Bryman and Bell, 2011).

The second limitation is the cross-sectional nature of the study. It is possible that at least certain aspects of KMCs, and their impact on organisational performance, will change over the life-cycle of the firm. A longitudinal treatment of data might yield additional insight into the impact of KMCs in organisational performance.

Though following a mixed method strategy reduced some of the methodological limitations of each constituent method, this approach has also some weaknesses. These are associated with the time required for its implementation (Tashakkori and Teddlie, 2003; Maxwell and Mittapalli, 2010; Creswell and Plano Clark, 2011), which in this research was almost a year for data collection and analysis. Another possible limitation is the follow-up of contradictory results (Creswell, 2009). This limitation was overcome in this research by studying in detail the contradictory and complementary findings that inform the final evaluation of the KMC-SE Conceptual Model, and the development of the KMC-SE Model.

7.6 Directions for future research

Future research should extend the understanding of KMCs as an antecedent to organisational performance in SEs, by involving additional moderating and mediating variables. This can be

obtained by including demographic and contextual characteristics not included in this study, such as, enterprise sector, exact number of employees and volunteers that could break the distinction between SMEs into micro, small and medium size SEs, technological turbulence and demand unpredictability (Dröge *et al.*, 2003). Moreover, one avenue for future research would be to examine the validity of the KMC-SE Model for other forms of organisational impact, such as, innovation, strategic positioning or competitive and sustainable advantages. In this case, other concepts that emerged from the qualitative phase, such as 'Legitimacy' and 'Innovation', can be assessed quantitatively as measures of organisational performance of SEs.

Although this study has provided a holistic perspective of KMCs by identifying the organisational and processes elements that drive them, it is important to recognise that there may be other drivers of KMC development that this study has not taken into account. For example, elements associated with absorptive capacity (Cohen and Levinthal, 1990), leadership and strategy. Additional research will be required to describe and empirically examine these other KMC elements and their relationships to the KMC development. Similarly, this study identified that technology and protection activities did not influence the development of KMCs in SEs. However, evidence from the qualitative phase may suggest that these elements are, in fact, gaining importance in SEs, thus, they should be included and assessed again in future studies.

Despite the extended empirical evidence provided by this study, it is evident that more research is needed on studying KMCs in organisations of different sizes, sectors and strategic orientations. While it appears that the primary concepts of KMC can be transferred from large to small, multi-strategy organisations, the empirical data presented in this study demonstrated that the development of KMCs is likely to differ substantially among different types of organisation. The understanding of these differences would enable academics and practitioners to design, implement, and manage effective strategies with less risk of disruption to the organisations themselves.

Due to the restricted resources of SEs and their dynamic characteristics, it is recommended to develop further the KMC-SE Model and to translate it into a more practical guidance supporting the audit and further development of KMCs in SEs. This practical guidance can be in the form of a practical framework. This framework can support SEs initially to assess their current KMCs, and then, based on this, to build applicable and relevant development plans to improve such capabilities, and obtain an improvement in their organisational performance. This format would allow the consideration of the heterogenic characteristics of SEs. The empirical implementation of this framework, possibly in a more case-based type of research, is recommended.

Regarding SE research, important advances had been identified and proposed in this study to define conceptual and practical boundaries for the SE field. However, it is still necessary to develop a commonly understood SE vocabulary that allows comparison among studies, and the further improvement of the sector. This would include, for example, the study of the different business models of SEs, the channels of communication between SEs and academia, and the distinctive characteristics of SEs in comparison with 'for-profit' SMEs and NPOs. This knowledge will provide more original and socially valuable research that could result in more accurate and relevant solutions and advice to improve the sector.

Finally, it is important to consider that an applied theory is never considered complete but rather 'true until shown otherwise' (Dubin, 1978; Lynham, 2002; Torraco, 2002; Swanson and Chermack, 2013). Therefore, further research related to the implementation of the theory in SEs, the KMC-SE Model, is required to refine and increase confidence in the existing theory. This will ensure that the theory is kept current and relevant and that it continues to work and have utility in the practical world of KM and SEs (Lynham, 2002).

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Appendices

Appendix A: Bibliometric Analysis

1. Studies on publication on SE literature

Author	Key words	Database	Period of time	Search limitation	No. of papers	Main findings / contributions
Desa (2007)	SEship; SEneur; SE; Social Venture	ABI-Inform	1985-2006	Only journal articles Word on Title or abstract	70	Ten research domains where SE studies were published Four streams of SEship research (definitional, resource-constrained environments, governance regulations and performance metrics) Formal prepositions for future research on SE
Douglas (2008)	SEship	Web of Science	1994-2007	Only journal articles	57 identified 20 analysed	Research methods used on SEship literature: 25% survey methods; 30% case studies; 20% network analysis; 15% secondary data; 2% mixed methods
Short *et al.* (2009)	SEship; SEneur; SE; Social Venture	EBSCO; Web of knowledge; ABI-Inform; Science Direct	1991-2008	Only English articles Only journal articles	152	Research domains on SE literature Citation analysis Categorisation of papers into conceptual (descriptive, explanatory and predictive, and use of formal prepositions) and empirical papers (use of formal prepositions and hypothesis, research methods and research settings) Delimitated boundaries of SEship research
Hoogendoorn (2010)	SEship; SEneur; SE; Social Venture	Web of knowledge	Not Mention - 2009	Only peer-review journals	67 – 31 empirical	Gartner's Framework classification for new venture creation: individual, process, organisation, and environment Classification based on schools of thought: (1) the Social Innovation School, (2) the Enterprise School, (3) the Emergence of Social Enterprise (EMES) school, and (4) the UK approach
Hill *et al.* (2010)	SEship; SEneur; SE; Community enterprise; Social Venture	Academic Search Premier; Business Source Premier; EconLit	1968- 2008	Only journal articles	212	Semantic network patterns of SEship meaning Emerging schools of thought (entrepreneurship, social, governance, for-profit non-profit)

2. Data reduction process for bibliometric study of SE and SEship literature

The number of records obtained by the three databases and two journals selected was **1343**. The proportion of records per each resource is presented in Table 1.

Table 1 Composition records pear Database

Database / Resource	No. of records	Frequency
ISI Web of Knowledge	**321**	**24%**
Science Direct	604	**45%**
Business Source Complete	347	**26%**
Journal of Social Entrepreneurship	9	**1%**
Social Enterprise Journal	62	**5%**
Total	**1343**	**100%**

The records were processed using Bibexcel, a tool-box for manipulating bibliographic data, developed by Olle Persson from the Inforsk research group at Umeå University, Sweden (Persson, 2002). It enables to import the records from the database queries and integrated them under same structure and categorisation. Since this research used three different databases, it was necessary to combine the various searches and homogenize tags and author's name spelling pear each record.

With the results integrated in one document, the next stage was examining all the entries to clean up the row dataset. The filters applied to obtain a final number of relevant papers are presented bellow in order of implementation:

a. Language: Only articles in English and Spanish were included in the study, based on significance (98.51%) and researcher language knowledge. This first filter reduced the initial data to **1323**.

b. Duplicate records: since three databases were consulted, there was a high probability to obtain repeat documents. To identify them, it was used Bibexcel and manually examination. A total of 134 records were repeated, letting the total number in **1189**.

c. Not journal articles: even though the search was limited to journal articles, it was identified other type of records that are not relevant to this study reducing the database to **926**.

d. Search terms on Title, Abstract and Key Words: although BSC and SC enable restricting the search by looking only on paper title or abstract, ISI does not permit this option. Therefore, the study explored for SE and SEneur terms in the whole document, which gave consistence to the study.

   After getting the whole picture, it is necessary to analyse with more detail how SE literature is represented. Appling filters on Bibexcel and manually, the search terms were browsed on title, abstract and key words. A total of **412** papers were obtained.

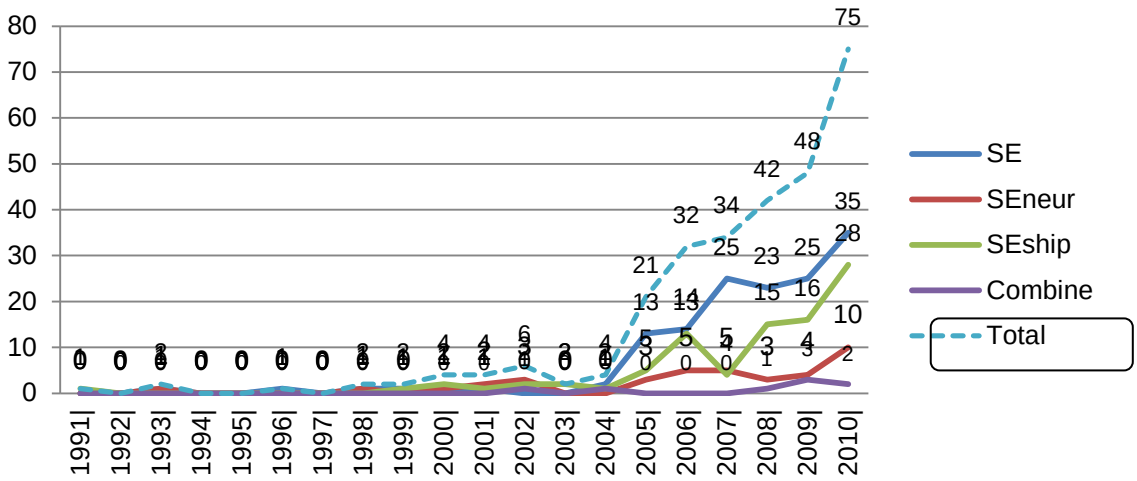
e. Relevance to study subjects: to focus the search, titles and abstracts were reviewed independently applying pre-specific rules to extract articles that were outside the target of the study, and had no apparent relationship to the topic.

After conducted the six filters mentioned above, the final number of papers that were considered relevant for this research is **286.**

3. Analysis and results of bibliometric study of SE and SEship literature

The bibliometric analysis started by describing the **286** records dataset characteristics and related implications. Three datasets were conformed: SE, SEship, SEneur and the combined dataset. The SE dataset contains 145 records, the SEship 94 records, the SEneur 39 records, and the combined contains eight records. A relational graph presenting the evolution of publications *per* dataset is presented in Figure 1.

Figure 1 - Distribution of publications *per* dataset



From 1991 to 2004, the annual output of SE, SEship and SEship research was at a very low level. The publication productivity *per annum* steadily increased between 2005 and 2009 and accelerated in 2010. Regarding the growth rates, 2005 presented the high value of 425%. Similarly, the later years presented a gradual average yearly increment of 12 articles with an existing ascendant trend expected to continue in the near future. In general, a majority of records (83%) were published within the last five years, giving credence to the notion that SE is an emerging field of interest. Regarding the evolution of the three datasets separately, a similar pattern was identified, suggesting that all three concepts are being used simultaneously on literature.

In order to identify the individual contribution of each author, affiliation and country to the total SE and SEship literature, the whole counting model was employed in this analysis to assign equal credit to the articles with author, affiliation or country co-authorship. Therefore, total in Table 3 is different from the total number of articles reviewed.

Over 464 different authors contributed to the 286 SE and SEship papers. However, among them, only 54 (12%) had written two or more papers since 1991, and the most prolific contributor was Paul Tracey who produced seven articles, followed by Helen Haugh with five (Table 5). The authorship position pattern suggested that a few productive SE authors were the first authors of all their publications and some others never played a leading role in their

studies. This performance might indicate that an important number of new researchers and practitioners have been taking part in this new academic field.

Table 2 - Research production by individual authors and affiliation

Author	Affiliation	No. Articles	Authorship position pattern			
			1	2	3	4
Tracey, Paul	University of Cambridge	7	3	2	2	
Haugh, Helen	University of Cambridge	5	2	1	2	
Smith, Brett R.	Miami University	4	3	1		
Thompson, John L.	University of Huddersfield	4	4			
Defourny, Jacques	University of Liège	4	3	1		
Bull, Mike	Manchester Metropolitan University	4	4			
Phillips, Nelson	University London Imperial College	4		4		
Woods, Christine	University of Auckland	4		3	1	
Seanor, Pam	University of Huddersfield	3	2			1
Brown, Judith	University of Teesside	3	1		1	1
Nyssens, Marthe	Catholic University of Louvain	3		3		
Nicholls, Alex	Oxford University	3	3			
Mort, Gillian Sullivan	La Trobe University	3	1	1	1	
Weerawardena, Jay	University of Queensland	3	2	1		
Bloom, Paul N.	Duke University	3	3			
Muñoz, Sarah-Anne	University of the Highlands and Islands	3	3			
Spear, Roger	Open University	3	3			
Tapsell, Paul	University of Otago	3	2	1		
Two publications (36 authors)	Two publications (50 affiliations)	100				
One publication (410 authors)	One publication (191 affiliations)	191				
Grand Total		357				

Continuing with the authorship patterns, it was found that of the total 286 articles, 168 (59%) were joint-authored; with two-person authorship (35%) being the dominant pattern. On the other hand, publications with single-author represented 41% (118) of the total of records. Translating these patterns to numbers, the average number of authors *per* article has increased to almost two since 2007.

There were 264 affiliations responsible for the 286 articles. For these affiliations, 73 (27%) produced 199 (51%) publications (Table 3). As is happening in other disciplines, the institutions responsible for the majority of publications in SE and SEship are less than 30% of the total (Gu, 2004; De Bakker *et al.*, 2005). These were all universities, with the most prolific contributors coming from UK universities. The proportion of authors coming from institutions outside the academic context was small but significant. A total of 55 (14%) affiliations were, for example, Social Enterprises, institutions supporting SE, or independent consultants.

Furthermore, the number of papers developed in collaboration work between academics and practitioners was 19 (7%) with a notable upward trend. Only UK was involved in international co-collaboration between UK universities and South African, Nigerian and Polish institutions (Nwankwo *et al.*, 2007; van Rensburg *et al.*, 2008; Curtis *et al.*, 2010).

By analysing country productivity, 35 individual countries were identified (Figure 2). 61% is represented by just two countries, UK and USA, with the former being the most productive source of literature from both academic and practitioner sources; contrasting the statement by Haugh (2005) that suggested the opposite situation. The top seven countries were developed countries representing 82% of the total publications. The contribution of papers from developing countries was relatively smaller and only 10% came from Asia, Africa and South America. These results confirmed what Frame (1979) demonstrated empirically in 1979. His affirmation was that country research outputs were different for developed and underdeveloped countries, the former being higher because of their access to physical, monetary and manpower resources.

Nevertheless, the appearance of more international collaboration publications between developed and developing countries suggested that this pattern is slightly changing. According to Frame and Carpenter (1979) and Glänzel *et al.* (1999), underdeveloped and small countries have heavy engagement in international collaboration because they have practically no other choice than to find a collaborating partner from outside their borders. Based on the patterns of multinational collaboration identified in this study, Figure 3 confirms this statement showing that 10 of 19 countries involved in international collaboration were developing countries.

Figure 2 - Distribution of papers by Country

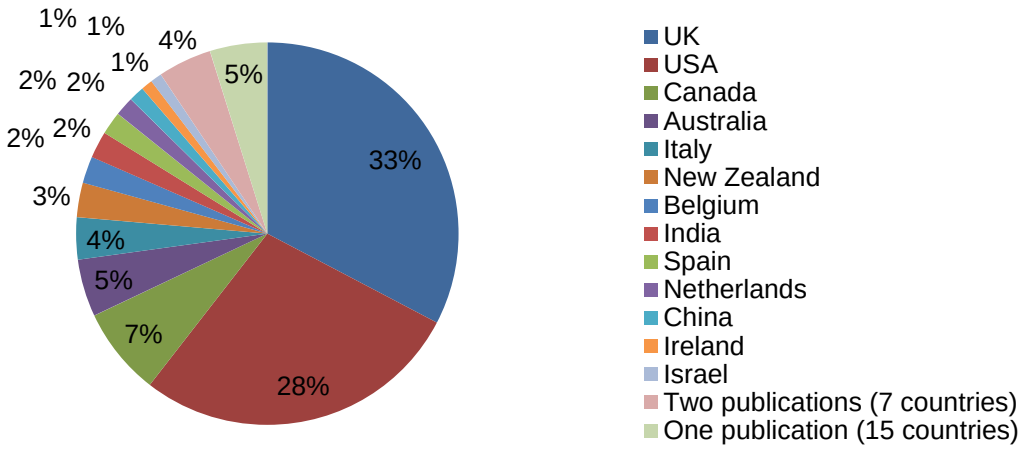
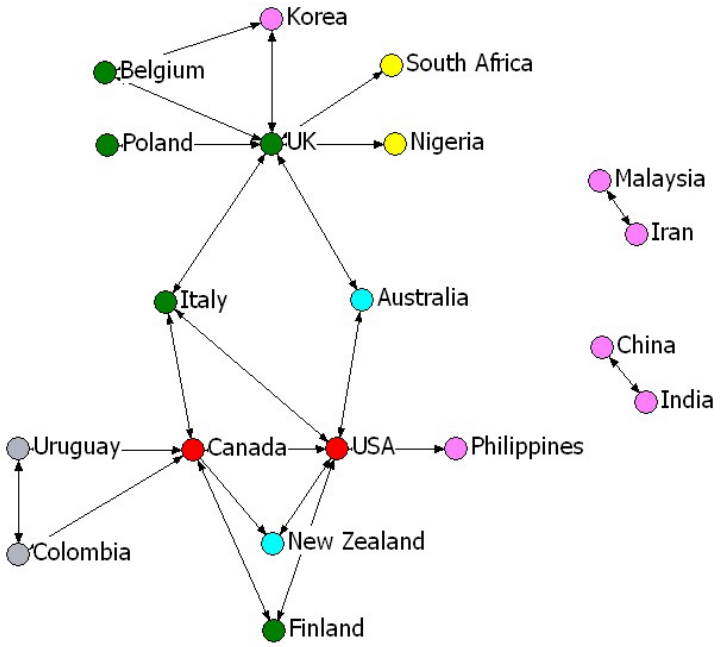


Figure 3 – Patterns of multinational collaboration



The multinational collaboration on SE and SEship literature is not significant for the majority of contributors (6%). However, the growing trend presented in the number of multinational publications, where 8 of 19 were published in 2010, indicates that more academics and practitioners are joining efforts to conduct international research. This phenomenon coincides with the results obtained on joint-author patterns, confirming that the SE sector is becoming more specialized as a response to the professionalism of the sector (Frame and Carpenter, 1979).

Overall, it was observed that, in terms of number of publications, the top five most productive countries, institutions and individuals generated 76%, 8%, and 4% of the entire SE research output, respectively. This demonstrates that there are countries dominating the SE research area, like UK and USA, whereas institutional and individual research output is spread more equally, which coincided with the Hill *et al.* (2010) results, who concluded that no author or institution dominated the SE literature.

The sources of SE and SEship publications were diverse with a total of 148 different journals identified. Not surprisingly, the specialist journals, '*Social Enterprise Journal*' and '*Journal of Social Entrepreneurship'*, have published the larger number of publications (Table 6). However, the former was recognized only by ABS with one grade, and the latter was not even included in the rankings due to their early stages. From the most representative journals that contain 59% of the SE publications, only 11 were included on the ISI database and for that reason, have an

Impact Factor. The '*Journal of World Business*' has the highest impact factor (2.6) and accounts for six articles. Similar results appeared when evaluating the Academic Journal Quality classification provided by ABS (The Association of Business Schools). From the top 17 journals only one journal, '*Entrepreneurship Theory and Practice*', was classified as a top journal in the field with nine publications, followed by four journals classified with three grades, one with two grades and seven with one grade.

Table 3 - Publication sources of SE and SEship

Journal	Subject category	Total	Freq.	Imp. Fac	ABS
Social Enterprise Journal	Management	59	21%	No	1
Journal of Social Entrepreneurship	Business; Management	9	3%	No	No
Entrepreneurship theory and practice	Business	9	3%	1.7	4
Entrepreneurship and regional development	Business; Planning and Development	7	2%	1.02	3
International Journal of Social Economics	Economics	7	2%	No	1
Journal of Business Ethics	Business; Ethics	7	2%	1.08	3
Journal of Non-profit and Public Sector Marketing	Business	6	2%	No	1
Journal of World Business	Business	6	2%	2.6	3
Emergence: Complexity and Organization	Education and Educational Research	6	2%	No	1
Journal of Developmental Entrepreneurship	Business	5	2%	No	No
Non-profit Management and Leadership	Social sciences, interdisciplinary; Business	4	1%	No	1
International Journal of Public Administration	Public administration	4	1%	No	No
Business Horizons	Economics; Management	3	1%	No	1
Annals of Public and Cooperative Economics	Economics; Public Administration	3	1%	No	2
California Management Review	Business; Management	3	1%	1.98	3
International Journal of Non-profit and Voluntary Sector Marketing	Business	3	1%	No	1
Journal of Asia-Pacific Business	Economics; Management	3	1%	No	No
Two publications (11 journals)		22	8%		
One publication (120 journals)		120	42%		
Grand Total		286	100%		

An important aspect when interpreting publication sources behaviour is the analysis of the areas of publication output. This information can be retrieved directly for the databases, however, only ISI Web of knowledge records included the journal subject categories, or discipline. In order to obtain a homogeneous categorization of journals, categories have been assigned to the other 181 records employing the description of each of the categories obtained from the Scope Notes 2010 Social Science Citation Index from Journal Citation Reports. The most common disciplines contributing to the SE and SEship literature were

Management and Business, representing 53% of the total articles. These concur with the Short *et al.* (2009) and Douglas (2008) findings, where business, management and entrepreneurship journals represent the majority of disciplines studying SE. The other schools of thought that have been studied SE and SEship from their points of view were: economics (8%), education (5%), public administration (4.5%), social sciences (4.5%) and planning and development (4%).

2. Epistemological orientation of Social Enterprise and Social Entrepreneurship literature:

A second stage in the bibliometric analysis was the categorization of papers according to their epistemological orientation. Identifying how a SE community conducts research can be used to measure the maturity of that community.

To determine a clear and concise Framework for classifying the papers according to their epistemological orientation, different approaches developed by literature review works on SE, KM and bibliometric analysis were studied. For instance, Barley *et al.* (1988) typified papers according to what they communicated: theory and research, practical managerial advice, or general descriptive information. This approach was followed by De Bakker *et al.* (2005) who studied Corporate Social Responsibility literature and defined a sub-category for Barley's proposal. They classified papers as: theoretical, prescriptive and descriptive. For the purpose of this research, De Bakker's Framework was employed because it follows a more positivist format, which allows the researcher to define with more detail the real purpose of each paper.

Table 4 - Epistemological classification of papers

Theoretical	
Conceptual	Major focus is on developing propositions, hypotheses, or (cor-) relations between theoretical constructs, based on a discussion of state of-the-art literature; no new empirical material has been collected for this work.
Exploratory	Major focus is on developing propositions, hypotheses, and (cor-) relations between theoretical constructs, based on the examination of extensive, new empirical data.
Predictive	Major focus is on testing of propositions, hypotheses, or (cor-) relations between theoretical constructs, based on the examination of extensive, new empirical data.
Prescriptive	
Instrumental	Major focus is on providing recommendations, such as, means, ideas, and recipes for action, to practitioners and professionals, which are instrumental in the realization of some desired end, such as improved performance along some dimension.
Normative	Major focus is on providing recommendations to practitioners and professionals, which are valuable in themselves when considered from some ethical, moral, or religious point of view.
Descriptive	
Descriptive	Major focus is on reporting fact or opinion; no intention of a theoretical or prescriptive contribution.

Source: originated by the author based on De Bakker *et al.* (2005)

The typology presented in Table 7 was employed in this study and has the following assumptions (De Bakker *et al.*, 2005):

1. Theoretical papers propose, develop, or expand the conception of a topic and do not need to involve necessarily the collection of new empirical data;
2. Conceptual papers do not depend on empirical data, but predictive and explorative papers do;
3. Predictive papers include hypothesis test, but exploratory present expectation about variables relation;
4. Prescriptive papers offer methods or advice to practitioners and professionals for addressing pragmatic problems, which could be instrumental or normative; and
5. Descriptive papers intend to report facts or opinion, without a noticeable contribution to either theory or practice.

As a sub-category, the research strategy followed by each paper was analysed looking for the strategy of inquiry, data collection and data analysis method (Creswell, 2009; Teddlie and Tashakkori, 2009). Additionally, the presence of formal hypotheses or propositions was evaluated. A further step was analysing all the abstracts, titles, and keywords in the dataset to establish their epistemological orientation using the typology presented in Table 5. The use of an article's full text was only performed to analyse those cases where the research method was not specified or where there were doubts about the classification.

The first classification of papers according to their epistemological orientation and purpose appeared to be largely of a theoretical (71%) and descriptive (20%) nature (Table 8). Half of the theoretical papers were of an exploratory nature (52%), followed by conceptual papers with a significant 42%, and only 6% with a predictive orientation. Less than 10% of the papers have a prescriptive nature, with instrumental being the dominant pattern with 20 papers.

Table 5 - Epistemological classification

Category	Subcategory	No. Articles	Freq.
Descriptive	**Descriptive Total**	**56**	**20 %**
Prescriptive	Instrumental	20	71%
	Normative	8	29%
	Prescriptive Total	**28**	**9%**
Theoretical	Conceptual	85	42%
	Exploratory	105	52%
	Predictive	12	6%
	Theoretical Total	**202**	**71%**

Grand Total	286	100%

These findings are comparable to the ones found by Short *et al.* (2009) and Hoogendoorn *et al.* (2010), where less than 50% of their articles were empirical. Additionally, the proportion of conceptual and case-based papers concurred with the Hill *et al.* (2010) findings, representing an 88% of the total 286 articles.

The second classification of papers examined research strategies adopted by empirical papers, which included 117 theoretical exploratory and predictive papers (Table 9). An evident focus on qualitative research was presented (82%) with case studies identified as the most common methodology used by SE researchers. The number of papers left was almost equally proportioned between mixed and quantitative methods, with 9% and 8% respectively.

Table 6 - Research strategy

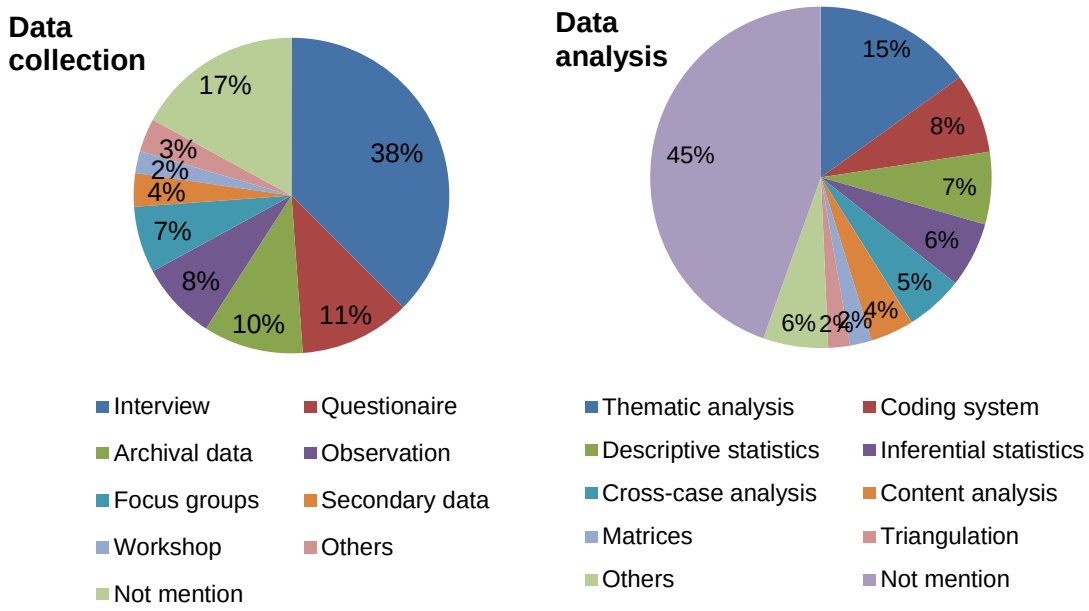
Research methods / strategy	Research methodology	No. Articles	Freq.
Mixed methods	Sequential	6	55%
	Concurrent	5	45%
	Mixed methods Total	**11**	**9.4%**
Qualitative	Case study	78	82%
	Grounded theory	6	6%
	Action research	6	6%
	Phenomenal	3	3%
	Narrative research	2	2%
	Mixed methodology	1	1%
	Qualitative Total	**96**	**82.1%**
Quantitative	Survey research	9	90%
	Experimental	1	10%
	Quantitative Total	**10**	**8.5%**
Grand Total		117	100%

Contrasting these findings with the ones obtained by Douglas (2008), a contradictory pattern of SE literature was identified. Among her 20 papers, she distinguished an equivalent proportion of papers using case study, survey and network analysis methods, what contrasted with the majority of papers analysed in this study that used case study methodology. Additionally, she suggested a trend in SE literature towards using computational methods, what was not identified in this research.

On the other hand, there were more similarities between the patterns obtained by this research and the ones identified by Hoogendoorn *et al.* (2010) and Short *et al.* (2009), who found more than 70% of their empirical papers following a qualitative approach with case studies being the most used method.

SE research also tends to be a mono-method, relying on either qualitative or quantitative. Only eleven studies integrated qualitative and quantitative approaches (Hibbert *et al.*, 2002; Turner and Martin, 2005; Korosec and Berman, 2006; Wong and Tang, 2006; Ferguson and Xie, 2008; Basargekar, 2009; Curry *et al.*, 2009; Bridgstock *et al.*, 2010; Fluix *et al.*, 2010). Even then, they applied just a simple two-step approach, for example, interviews followed by a survey, or *vice-versa*.

Figure 4 - Data collection and analysis methods



Regarding data collection methods used by SE researchers, the leading technique identified was interviews, with more than a third (38%) of the total (Figure 4). The other specific techniques with 10% or more were survey questionnaires and archival data. The use of observation, focus groups, secondary data and workshops all scored between 4% and 8%. Researchers using more than one technique for data collection represented half of the 87 papers with an identifiable methodology.

For data analysis methods (Figure 4), almost half of the empirical papers presented their results, discussion and conclusion without specifying which method they used to obtain those findings. Among the papers that specified their data analysis method, qualitative employed mostly thematic analysis whereas quantitative used more matrices and inferential statistics. The use of formal hypotheses and propositions was limited to only 13 papers, confirming the Short *et al.* (2009) results.

4. Definitions of Social Entrepreneurship, Social Entrepreneur and Social Enterprises

Table 7 - Social Entrepreneurship and Social Entrepreneur definitions

Entrepreneur school of though	Author and year	Country	Theory based	Definition
Social Entrepreneurship				
'Great person school'	Roberts and Woods (2005) Practitioner + Academic	New Zealand	Entrepreneurship	'Social entrepreneurship is the construction, evaluation and pursuit of opportunities for **transformative social change** carried out by visionary, passionately dedicated individuals' p. xx
Management school	Fowler (2000) Practitioner	Ethiopia	Non-profit organisations	'Social entrepreneurship is the creation of viable socio-economic structures, relations, institutions, organisations and practices that **yield and sustain social benefits.'** p. xx
Classical school (process)	Hill, *et al.*(2010) Academic	USA		'as a disciplined, innovative, risk-tolerant entrepreneurial process of opportunity recognition and resource assembly directed toward **creating social value** by changing underlying social and economic structures' p. xx
	Mair and Martí (2006) Academic	Spain	Entrepreneurship	'.. as a process involving the innovative use and combination of resources to pursue opportunities to **catalyse social change and/or address social needs'** p. xx
Classical school (activity)	Neck *et al.* (2009) Academic	USA	Entrepreneurship	'social entrepreneurial activity is influenced by three main factors: sources of opportunities (people and planet), stakeholder salience, and performance metrics.' p. xx
	Austin *et al.* (2006) Academics	USA	Non-profit organisations - entrepreneurship	'.. as innovative, **social value creating** activity that can occur within or across the non-profit, business, or government sectors.' p. xx
	Peredo and McLean (2006) Academic	Canada	Non-profit organisations - entrepreneurship	'social entrepreneurship is exercised where some person or group: (1) aim(s) at **creating social value**, either exclusively or at least in some prominent way; (2) show(s) a capacity to recognise and take advantage of opportunities to create that value ('envision'); (3) employ(s) innovation, ranging from outright invention to adapting someone else's novelty, in **creating and/or distributing social value**; (4) is/are willing to accept an above-average degree of risk in creating and disseminating social value; and (5) is/are unusually resourceful in being relatively undaunted by scarce assets in pursuing their social venture.' p. xx
	Seelos and Mair (2004) Practitioner Academic	Spain	Entrepreneurship	'Social entrepreneurship creates new models for the provision of products and services that **cater directly to basic human needs that remain unsatisfied by current economic or social institutions'** p. xx
	Brouard and Larivet (2011) Academics	Canada and France	Entrepreneurship	'Social Entrepreneurship as a concept which represent a variety of activities and processes to **create and sustain social value** by using more entrepreneurial and innovative approaches and constrained by the external environment' p. 50
Physiological characteristics	Sullivan Mort, *et al.* (2003) Academics	Australia	Non-profit organisations - entrepreneurship	'social entrepreneurship is a behavioural characteristic expressed within a social organisation.' p. xx
	Hibbert, *et al.*	UK	Entrepreneurship	'Social entrepreneurship can be loosely defined as the use of entrepreneurial

	(2002) Academics			behaviour for **social ends** rather than for profit objectives, or alternatively, that the profits generated are used for the **benefit of a specific disadvantaged group**.' p. 228
Intrapreneurship school	Fayolle and Matlay (2011) Academics	France and UK	Entrepreneurship	'Social entrepreneurship aims to better accommodate a social dimension within the traditional economic behaviour, to take into consideration social problems, countries' and communities' context and situations, and the **plight of socially challenged or disadvantaged individuals**.' p. xx
	Weerawardena and Mort (2006)	UK	Non-profit organisations - entrepreneurship	'Social entrepreneurship strives to achieve **social value creatio**n and this requires the display of innovativeness, pro-activeness and risk management behaviour. This behaviour is constrained by the desire to achieve the social mission and to maintain the sustainability of the existing organisation. In doing so they are responsive to and constrained by environmental dynamics. They continuously interact with a turbulent and dynamic environment that forces them to pursue sustainability, often within the context of the relative resource poverty of the organisation.' p. 32
Social Entrepreneur				
'Great person school'	Thompson (2008) Academic	UK	Entrepreneurship	'the real social entrepreneurs – as distinct from people running social enterprises or being socially enterprising – dedicate their lives to the service of others. They find and embrace a cause and it becomes everything to them. There are strong spiritual and social elements in their work.' p. xx
'Great person school' **Management school**	Roper and Cheney (2005) Academic	New Zealand and USA	Hybrid organisation	'Categories of SEneur: 1. Newly emergent or experienced CEOs who style themselves and their organisations as both innovative and socially responsible. 2. Administrators of non-profits or social advocacy groups who import business and market-based models to improve their **organisation's performance and enhance its longevity**. 3. At large philanthropists who see themselves as catalysts for both organisational and **societal change**.' p. xx
	Dees (1998) Academic	USA	Entrepreneurship	Social entrepreneurs play the role of change agents in the social sector, by: • Adopting a mission to create and sustain **social value** (not just private value), • Recognising and relentlessly pursuing new opportunities to serve that mission, • Engaging in a process of continuous innovation, adaptation, and learning, • Acting boldly without being limited by resources currently in hand, and • Exhibiting a heightened sense of accountability to the constituencies served and for the outcomes created. p. xx
Management school	Sullivan Mort, *et al*. (2003) Academic	Australia	Entrepreneurship	'The social entrepreneur then is one who is socially entrepreneurially virtuous, and whose mission is to create **social value** for the social organisation with which they are associated' p. xx

	Dacin *et al.* (2010) Academic	Canada	Entrepreneurship	'An actor who applies business principles to **solving social problems**.' p. xx
Classical school	Dees (2007) Academic	USA	Entrepreneurship	' individuals, and organisations that bring **to social problems the** same kind of determination, creativity, and resourcefulness that we find among business entrepreneurs.' p. xx
	Brouard and Larivet (2011) Academics	Canada and France	Entrepreneurship and Non-profit	'Social Entrepreneur as any individuals who with their entrepreneurial spirit and personality will act as change agents and leaders to tackle social problems by recognising new opportunities and finding innovative solutions, and are more concerned with creating social value than financial value' p. xx

Table 8 - Social Enterprise definitions

Author and year	Country	Definition
Sullivan Mort, *et al*. Academics	Australia	'The point has been made that social enterprises have 'social good' as a prime driver. In many ways they will replicate a profit-seeking business, but their surpluses will be reinvested in the core purpose and they will be concerned to demonstrate that they are **generating social wealth as well as economic wealth.** They need not be run by entrepreneurial characters and their behaviour does not have to conform to what we understand as entrepreneurial.' p. xx
Jones and Keogh (2006) **Academics**	Scotland	'individuals who seek to run businesses called social enterprises. These businesses have double bottom lines' p. xx
Chell (2007) **Academic**	UK	'Social enterprise would 'create and pursue opportunities relentlessly, without regard to alienable resources currently controlled, with a view to both creating wealth that may be reinvested in the business to assure its sustainability, and social value' p. xx
Brouard and Larivet (2011) **Academics**	Canada and France	'Social enterprises as organisations which pursue social mission or purposes that operate to create community benefit regardless of ownership or legal structure and with varying degrees of financial self-sufficiency, innovation and social transformation'. p. 39
Galera and Borzaga (2009) **Academics**	Italy	'Social Enterprises are conceived of as private, autonomous institutions that are engaged in the supply of services and goods with a merit of general-interest natures in a stable and continues way' p. 215
Dart (2004) **Academic**	USA	'Social Enterprise is considered synonymous with organisations becoming more market driven, client driven, sef-suficient, commercial, or business-like' p. 414
Harding (2004) **Academic**	UK	'Social Enterprise potentially covers everything from non-for-profit organisations, through charities and foundations to cooperatives and mutual societies' p. xx
Thompson and Doherty (2006) **Academics**	UK	Social enterprises – defined simply – are oganisations seeking business solutions to social problems. They need to be distinguished from other socially-orientated organisations and initiatives that bring (sometimes significant) benefits to communities but which are not wanting or seeking to be 'businesses'. p. 362

5. Distribution of papers with KM and Social Economy terms

	Knowledge Management				Intellectual capital				Organi* knowledge			
Sub 2	**SD**	**BSC +EL**	**WK**	**V. Data**	**SD**	**BSC +EL**	**WK**	**V. Data**	**SD**	**BSC +EL**	**WK**	**V. Data**
Nonprofit organisations	7	27	5	21	3	6	0	2	0	4	1	1
Non-profit organisations	13	7	13	13	3	8	6	1	3	1	1	0
Nongovernmental organisations	5	3	1	1	1	0	0	0	0	0	0	0
Non-governmental organi*	10	5	7	7	2	0	0	0	1	0	1	0
Co-operatives	NA	6	0	5	NA	2	0	1	NA	0	1	1
Cooperatives	NA	12	0	0	NA	3	1	1	NA	1	0	0
Charit*	11	27	1	11	3	8	1	0	4	3	0	1
Credit unions	0	12	0	1	0	3	1	0	0	1	0	0
Civic association	0	0	0	0	1	0	0	0	0	0	0	0
Voluntary organi*	1	5	0	0	1	0	0	0	0	0	0	0
Fair trade	2	0	0	0	0	1	1	1	2	0	0	0
Housing associations	1	0	0	0	0	0	0	0	0	0	0	0
Total Third Sector	**50**	**104**	**27**	**59**	**14**	**31**	**10**	**6**	**10**	**10**	**4**	**3**

Appendix B: Knowledge Management Capabilities empirical studies (surveys)

Research / Authors	Research strategy and sample characteristics	Independent variables	Mediator variables	Dependent variables	Control variables	Findings
Assessing KM processes and organisational capability						
Gold, *et al.* (2001)	Survey (7 point-Likert-type) n= 323 Large enterprises Senior executives	**Infrastructural capabilities** • Culture • Technology • Structure **Process capabilities** • Acquisition • Conversion • Application • Protection	No	Organisational performance	No	No single dimension of infrastructure or process capability is adequate in describing the phenomena. Each of the dimensions contributes uniquely to the overall capability. The paths between infrastructure and process capabilities and the performance variable are positive and of high magnitude.
Zaim *et at.* (2007)	Survey n=83 Case study: large enterprise in Turkey	**KM Infrastructure** • Culture • Technology • Organisation • Intellectual Capital **KM Process** • Generation • Transfer • Utilisation • Coding and storage	No	Knowledge Management Performance	No	For KM infrastructure, organisational culture appeared to be the leading factor, followed by technology. Both intellectual capital organisational structure also featured as important though they had relatively less impact on KM infrastructure. Of the KM process factors, knowledge transfer and sharing was found to be the most important criterion, followed by knowledge generation that has also a significant effect. In contrast, knowledge utilisation and knowledge codification and storage have comparatively less impact on KM process.
Mills and Smith (2011)	Survey n=265 Large enterprises in Jamaica	**Infrastructural** • Culture • Technology • Structure **Process** • Acquisition • Conversion	No	Organisational performance	No	Of the three infrastructural capabilities, only organisational structure had a significant impact on organisational performance; neither technology nor organisational culture had a significant impact on organisational performance. For knowledge process capability, knowledge acquisition, knowledge application and knowledge protection also impacted organisational performance, but not knowledge conversion.

		• Application • Protection				
Lee and Choi (2003)	Survey and interview (6 point- Likert-type) n=451 Large enterprises in Korea from three industry categories	**Enablers** • Culture • Structure • People • IT **Processes:** • Internalisation • Externalisation • Combination • Socialisation	Intermediate outcome • Organisational creativity	Organisational performance	No	Collaboration is positively related with socialisation, externalisation, and internalisation, whereas it does not affect the combination mode. Trust is a significant predictor of all knowledge creation modes. Centralisation is negatively related with socialisation, externalisation, and internalisation while it is not significantly related with combination. Formalisation and T-shaped skills of members do not significantly affect knowledge creation. IT support is significantly related with knowledge combination only. Knowledge creation is positively related with organisational creativity, which is positively related with organisational performance.
Lee and Lee (2007)	Survey n= 215 68 companies in Korea	**KM Capabilities** • Culture • Structure • People • Information Technology **KM Processes** • Generating • Accessing • Facilitating • Representing • Embedding • Usage • Transferring • Measuring		KM Performance • Customer performance • Financial performance	No	Capabilities (decentralisation of organisational structure, learning organisation culture, and IT support) contribute to the successful KM activities, and successful KM activities contribute to performance in KM. Except the relationship between self-efficacy (T-shaped skills) and process.
Assessing KM processes						
Becerra-Fernandez *et al.* (2001)	Survey and interview n=159 One knowledge-based organisation	**KM processes:** • Internalisation • Externalisation • Combination • Socialisation	No	KM satisfaction	Task characteristics • Orientation • Domain	Combination and externalisation processes, but not internalisation and socialisation processes, affect perceived knowledge satisfaction.
Liu *et al.* (2004)	Survey (5 point Likert-	**Knowledge**	No	Competitiveness	• Enterprise	Three variables, enterprise characteristics, technology advantages

	type) n= 102 High technology enterprises from Taiwan	**capabilities** • Obtaining • Refining • Storing • Sharing			characteristics • Technology advantages • Scale of the enterprise	and the enterprise scale, proved to be interacted with KM capability. They also produce multiple positive effects on product competitiveness. Scale of the enterprise is one of the key factors to success.
Liang *et al.* (2007)	Survey (5 point Likert-type) n=252 Large enterprises in Taiwan from three industry categories	• Documentation knowledge • Acquiring knowledge • Sharing knowledge • Creation knowledge	No	Perceived historical performance • Financial performance • Organisational performance	Industry	Documenting has positive impact on organisational performance but not in financial. Creating has positive impact on financial performance but not in organisational performance. Acquiring knowledge has a positive impact on both performances. Sharing has no effect on both performances. An interaction effect exists between type of industry and performance.
Lin *et al.* (2007)	Survey (5 point Likert-type) n= 123 Information-related industry enterprises in Taiwan	• Knowledge clustering • Knowledge enlarging • Knowledge exchanging • Knowledge initiating	No	Knowledge Performance	No	The four processes dimensions of the model influenced each other, as well as knowledge performance.
Assessing KM resources / capabilities / enablers						
Chuang (2004)	Survey (7 point Likert-type) n= 177 Larger enterprises in Taiwan	**Knowledge resources** • Structural • Cultural • Human • Technical	No	Competitive advantage • Innovativeness • Market position • Mass customisation • Difficulty in duplicating	No	Technical resources are not associated with competitive advantage. Structural, cultural and human resources are essential for competitive advantage.
Syed-Ikhsan and Rowland (2004)	Survey n= 204 Ministry of Entrepreneur Development of Malaysia	• Organisational culture • Organisational structure • Technology • People • Political directives	Knowledge assets • Explicit knowledge • Tacit knowledge	Knowledge transfer performance • Speed • Reliability • Accuracy	No	Availability of knowledge assets in an organisation has a direct influence on the performance of knowledge transfer in that organisation. There is a positive relationship between knowledge sharing culture and knowledge transfer performance and knowledge assets. Neither document confidentiality status nor communication

						demonstrated a significant relationship with either knowledge transfer performance or knowledge assets. All IT variables identified, except ICT tools with knowledge transfer, have a significant relationship with both knowledge transfer performance and knowledge assets. Political issues are also important in managing knowledge in a public organisation.
Yang and Chen (2007)	Survey (7 point Likert-type) n= 256 Students from MBA and EMBA in Taiwan	• Cultural KC • Structural KC • Human KC • Technical KC	No	Knowledge sharing	• Gender • Age • Education • Firm size	Firms performing a KM Program show improved organisational knowledge capabilities and knowledge sharing. The differences are most significant for structural knowledge capability, with cultural knowledge capability second. Technical knowledge capability does not improve when implementing KM in a business.
Nguyen *et al.* (2009)	Survey n=148 Construction industries in Vietnam	• Culture • Structure • Human resources • Information technology	No	Competitive advantage	No	Only cultural and technical KM capabilities have unique and significant influences on a firm's competitive advantage
Zheng *et al.* (2010)	Survey n=384 301 enterprises from Med-western metropolitan area	• Organisational structure • Organisational culture • Organisational strategy	KM effectiveness	Organisational effectiveness	No	Organisational strategy exerts a significant impact on organisational effectiveness above and beyond that of organisational context, although its effect is reduced when organisational culture and structure are taken into consideration. KM was found to fully mediate organisational culture's influence on organisational effectiveness. Culture has a greater contribution to KM than other factors examined.
Susanty *et al.* (2012)	Survey n= 74 Small and Medium Enterprises (SMEs) in the Garment Sentra in Kabupaten Sragen	• Organisational culture • Organisational structure • People • Information Technology	Effectiveness of Knowledge Transfer	Organisational Performance	No	Organisational culture has a significant positive impact on the effectiveness of knowledge transfer by SMEs. Centralised organisational structure have a negative impact on effectiveness of knowledge transfer by SMEs. Effectiveness of knowledge transfer by SMEs, which is measured by changes in the knowledge and perceived knowledge usefulness, have a significant positive impact on organisational performance through increased market share and profit. Failing to prove the contribution of people who posses T-skills and information technology on effectiveness of knowledge transfer by SMEs.

Gholipour *et al.* (2010)	Survey n= 300 Small and Medium Enterprises (SMEs) of Mazandaran province in Iran	• Organisational culture • Organisational structure • People • Information Technology	No	KM Enablers	No	KME is associated with cultural factors such as collaboration, trust, and learning. IT support does not affect on KME
Bakar *et al.* (2012)	Survey n=70 Construction companies in Malaysia	• Culture • Structure • Technology	KM Infrastructure Capability	Project Benefits	No	Culture, Structure and Technology parameters of Knowledge Infrastructure capability from view point of social capital theory have a strong significant relationship with project benefits. Organisation's culture plays the most significant role in KM capabilities, followed by structure and then the technological aspect.

Appendix C: Survey Questionnaire

WELCOME

Congratulations on finding your way to our survey!

Westminster Business School at the University of Westminster would be grateful to have your contribution to research on 'Knowledge Management in Social Enterprises' through your completion of the following questionnaire.

This survey is going to be a snapshot of how Social Enterprises are managing their knowledge across their organisations in the UK.

The questions are mainly answered by choosing between options and we anticipate that it should take around five to ten minutes to complete the survey.

As we would like this survey to represent the views of as many people as possible, we invite you to pass on the link to your colleagues and friends from other Social Enterprises in UK. The more people that complete the survey, the better the snapshot will be.

The closing date for completed questionnaires is 31 March, 2012. The summary results will be posted as soon as possible after that date on a website that is given as you complete the survey.

Note: In this study we are using the UK government definition that Social Enterprises are 'businesses with primarily social objectives whose surpluses are principally reinvested for that purpose in the business or community, rather than being driven by the need to maximise profit for shareholders and owners'.

Your views are important!

Many thanks for reading this note and completing the survey.

If you have any queries or comments, please contact:

Maria Granados: m.granados@westminster.ac.uk

TERMS

Research Sponsor: The study is being conducted by Maria Granados from Westminster Business School - University of Westminster.

Participation: Participation in this study is entirely voluntary. You may refuse to participate or withdraw at any time without consequence.

Confidentiality: If you agree to participate, strict confidentiality will be maintained. No individual identifying information will be disclosed. In reporting the data, the information you provide will be reported in an aggregate form and will not be reported at individual-respondent level. All data collected in this research study will be stored in a secure area and access will only be given to personnel associated with the study.

About your Organisation

Is your organisation a Social Enterprise?

Yes
No

About your Social Enterprise

In which of the following regions does your Social Enterprise operate? Please TICK all that apply

England
Wales
Scotland
Northern Ireland
International

How long has your enterprise been in existence? Please TICK one box only:

Less than one year
1 - 2 years
3 - 4 years
5 - 9 years
10 or more years

How many PAID staff currently work for your Social Enterprise? Please TICK one box only:

0
1 - 9
10 - 49
50 - 249
250 - 999
1,000 and over

How many VOLUNTEER (unpaid) staff currently work for your Social Enterprise? Please TICK one box only:

0
1 - 9
10 - 49
50 - 249
250 - 999
1,000 and over

Does your Social Enterprise use the majority of the surplus or profit from its contracts or trading to further your social or environmental goal?

Yes
No

Is your Social Enterprise registered as a charity?

Yes
No

What is the legal status of your Social Enterprise? Please TICK one box only:

Sole Trader	Limited Company	Community Benefit Society (BenCom)
Unincorporated Association	Limited Liability Partnership	Building Society
Partnership	Community Interest Company (CIC)	Credit Union
Limited Partnership	Charitable Incorporated Organisation (CIO)	Friendly Society
Trust	Co-operative Society (Co-op)	

Which of the following are objectives of your Social Enterprise?

Social
Environmental
Profit

Does your Social Enterprise have a Knowledge Management Programme in place?

Yes
No
Not sure

If the previous answer is Yes, please briefly specify what activities of Knowledge Management have been implemented in your Social Enterprise

About members of your Social Enterprise

Based on your current feelings, your perceptions and discussions with others, please indicate your agreement, or disagreement, with the following statements regarding the MEMBERS of your Social Enterprise.

Culture and enterprise structure

	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
(CL1) Are supportive and helpful					
(CL2) Ask other members for assistance when needed					
(TR1) Are trustworthy					
(TR2) Have reciprocal faith in others' decisions towards enterprise interests					
(L1) Are satisfied by the contents of training and development programmes					
(S1) Are encouraged to make their own decisions related to their work					
(S2) Participate in the decision-making process of the Social Enterprise					
(S3) Have flexibility to make informal agreements to handle situations					

People

	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
(TS1) Can understand not only their own tasks but also others' tasks					
(TS2) Can communicate well with other members					
(TS3) Are specialists in their own area					
(EM1) Receive bonuses in return for knowledge sharing					
(EM2) Receive increased promotion opportunities in return for knowledge sharing					
(EM3) Receive increased job security in return for knowledge sharing					
(EM4) Share knowledge because they believe it strengthens ties between them and the enterprise					
(EM5) Share knowledge because they expect to receive knowledge in return					
(IM1) Are confident in their ability to provide knowledge to others in the enterprise					
(IM2) Believe that seeking knowledge from other people may make them look less knowledgeable than they really are					
(IM3) Feel good helping someone solve problems by sharing their knowledge					

About your Social Enterprise

Based on your current feelings, your perceptions and discussions with others, please indicate your agreement, or disagreement, with the following statements regarding your Social Enterprise.

Culture, enterprise structure and technology

	Strongly disagree	Disagree	Neither disagree nor agree	Agree	Strongly agree
(L2) Provides formal training programmes					
(L3) Encourages people to attend seminars, conferences and symposia					
(L4) Provides opportunities for informal individual development such as work assignments and job rotation					
(M1) Has a clear mission that gives purpose to members' work					
(M2) Has a shared vision of what the Social Enterprise will be like in the future					
(S4) Has clear rules and procedures					
(T1) Provides IT support for collaborative work among					

enterprise members
(T2) Provides IT support for communication involving the enterprise
(T3) Provides IT support for retrieving necessary information
(T4) Provides IT support for storing information

About processes and mechanisms of your enterprise

Based on your perceptions and discussions with others, please indicate the AVAILABILITY of mechanisms or processes in your Social Enterprise for:

Application and protection

	Very bad	Bad	Neither bad nor good	Good	Very good
(A1) Using lessons learned from projects to improve successive projects					
(A2) Using knowledge in development of new products					
(A3) Making knowledge accessible to those who need it					
(A4) Using knowledge to adjust strategic direction					
(PR1) Protecting knowledge from inappropriate or illegal use					
(PR2) Restricting access to information					
(PR3) Communicating the importance of protecting knowledge					

Acquisition and conversion

	Very bad	Bad	Neither bad nor good	Good	Very good
(AC1) Creating and acquiring knowledge from different sources					
(AC2) Sharing knowledge with business partners					
(AC3) Sharing knowledge among members					
(AC4) Distributing knowledge throughout the Social Enterprise					
(CV1) Integrating different sources and types of knowledge					
(CV2) Organising knowledge					
(CV3) Replacing out-dated knowledge					
(CV4) Converting knowledge into action plans					

About your enterprise performance

Please indicate your assessment of the following topics regarding your Social Enterprise over the last 12 months.

	Significantly decreasing	Decreasing	No change	Increasing	Significantly increasing
(R1) Creation of social / environmental value					
(R2) Income					
(R3) Expenditure					
(LI1) Introduction of new products					
(LI2) Workforce					
(ST1) Consumer satisfaction					
(ST2) Stakeholders satisfaction					
(IA1) Ability to deal with change					
(IA2) Teamwork					

About your enterprise context

How has the economic climate affected your organisation 's performance?

Positively
Negatively
No impact

What type of support has your Social Enterprise received from the Social Enterprise network it belongs to?

Formal training
Informal training
Business consultation / advisory
Financial resources
No support requested
Other (please specify)

What type of support has your Social Enterprise received from other Social Enterprises, not through the Social Enterprise network?

Formal training
Informal training
Business consultation / advisory
Financial resources
No support requested
Other (please specify)

About your enterprise context

What is your role in your Social Enterprise?

Owner/Managing Director/CEO
Senior Management
Junior Management
Other (please specify)

How long have you worked with your Social Enterprise?

Less than six months
Six months - one year
2 - 3 years
4 - 5 years
6 or more years

What is your highest level of educational achievement? Please TICK one box only:

No formal qualifications
GCE 'O' level, or equivalent
GCE 'A' level, or equivalent
Degree, or equivalent
Post-graduate degree

What prior experience have you had? Please TICK all relevant boxes:

Prior business experience
Prior charities experience
Prior Social Enterprise experience
Prior educational/academic experience
No such prior experience

Are you:

Male
Female

What is your age?

19 and under
20 - 29
30 - 39
40 - 49
50 - 59
60 or older

Further research

We are interesting in hearing more about your experience managing knowledge within your Social Enterprise. Thus, please give us your contact details if you would like to take part in further research.

Your name:

Name of Social

Enterprise:

Email Address:

Phone Number:

Any additional comments?

Thank you

Thank you for your time and thank you very much for taking part in our survey. Highlights of the results of this survey will be uploaded to this website after the 31st March 2012:

https://sites.google.com/a/my.westminster.ac.uk/kmse/

As we would like this survey to represent the views of as many people as possible, we remind you to pass on the link to your colleagues and friends from other Social Enterprises in UK. The more people that complete the survey, the better the snapshot will be.

Appendix D: Indices of Fit for SEM

Following the recommendations of Bollen and Long (1993), a variety of global fit indices are used, including indices of absolute fit, indices of relative fit, and indices of fit with a penalty function for lack of parsimony. The criteria for choosing these indices is based in their variant approaches to the assessment of model fit, and their support in the literature as important indices of fit that should be reported (Byrne, 2010). These indices include the traditional overall chi square test of model fit (which should be statistically non-significant), the Root Mean Square Error of Approximation (RMSEA; which should be less than 0.08 to declare satisfactory fit), the p-value for the test of close fit (which should be statistically non-significant), the Parsimony goodness of fit index (PGFI; which should be greater than 0.50), and the Comparative Fit Index (CFI; which should be greater than 0.90).

In addition to the global fit indices, more focused tests of fit will be pursued. These include examination of the standardized residual covariances (which should be between -2.00 and 2.00) and modification indices (which should be less than 4.00). Care will be taken to ensure there is no specification error.

Summarizing, the statistical analysis of the conceptual model initiates by testing the plausibility based on the sample data collected that comprise all observed variables in the model. The first procedure is validating the measurement model through an EFA, which helps to reduce any estimation problems during model evaluation.

The second procedure is testing the goodness-of-fit between the hypothesized model and the sample data. This requires imposing the structure of the hypothesized model on the sample data, and then testing how well the observed data fit thus restricted structure. Because is highly unlikely that a perfect fit will exist, a residual value will be obtained that represents the discrepancy between the hypothesized model and the observed data (Byrne, 2010).

Following the Joreskog and Sorbom (1993) classification of possible scenarios for testing SEMs, this research is working under the model-generating scenario. This represent the case where, under a possible rejection of the initial KMC-SE Conceptual Model on the bases of poor fit to the sample data, a exploratory procedure is followed to modify and reestimate the model. This results in a model that is both substantively meaningful and statistically well fitting.

Appendix E: Interview guide

Question type	Question	Topical Probes
Introduction	This research is being conducted to get to know the views of members of Social Enterprises about their Knowledge Management programmes. I am conducting this study as part as on-going research at the University of Westminster. The questions I would like to ask you are related to the your KM practices and your enterprise characteristics. Everything you tell me will only be used for this research project, and will not be shared with anyone outside the research team. Additionally your name, or the name of your SE, will not be used, thus guaranteeing anonymity. This interview is recorded to allow an accurate transcription. Do you consent to the interview? Do you have any questions before we begin?	
Opening question	'Thank you very much for your willingness to talk to me about your Social Enterprise. I have reviewed the information you gave on our survey and have some idea about your enterprise. But still, could you please tell me something more about the Social Enterprise and your role in it?	Objectives Number of employees Participant's responsibilities
Key question	In your organisation you probably have data, information and knowledge, that is probably in paper, computer or in people's head, tell me, how do you manage that?	Knowledge practices - activities Information technology support Member's participation and motivations Decision making process Culture Who leader the KM programme? Support from networks or other Social Enterprises Difficulties on implementing programme
Closing question	From your experience, what are your thoughts for your Social Enterprise in the future?	

Appendix F: Description of deductive and inductive codes

Code	Type	Description
Organisational capabilities - Culture		
Collaboration	Deductive	Degree to which people actively help one another in their work
Trust	Deductive	Degree of reciprocal faith in others' intentions, behaviours, and skills toward organisational goals
Learning and development	Deductive	Degree of opportunity, variety, satisfaction, and encouragement for learning and development
Mission	Deductive	Degree to which people share the definition or the organisation's purpose
Organisational capabilities - Structure		
Centralisation	Deductive	Level at which most decision making occurs
Formalisation	Deductive	Amount of formal rules, policies and procedures within the SE
Organisational capabilities - People		
T-shaped skills	Deductive	Degree of understanding one's and others' task areas
Extrinsic motivation - Rewards	Deductive	Degree to which one believes that one can have extrinsic incentives due to one's knowledge sharing
Extrinsic motivation - Reciprocity	Deductive	Degree to which one believes one can improve mutual relationship with others through one's knowledge sharing
Intrinsic motivation - Self-efficacy	Deductive	Degree to which one believes that one can improve the organization's performance through one's knowledge sharing
Intrinsic motivation - Reputation	Deductive	Degree to which one believes one can enhance one's status in one's social system through one's knowledge sharing
Intrinsic motivation - Enjoyment in helping others	Deductive	Degree to which one enjoy helping others and transferring one's knowledge
Organisational capabilities - Technology		
IT support	Deductive	Degree of IT support for collaborative work, for searching and accessing, for communication, and for information storing
Process capabilities		
Acquisition	Deductive	Processes/activities/mechanisms of developing new content and replacing existing content within the organization's tacit and explicit knowledge base
Conversion	Deductive	Processes/activities/mechanisms orientated towards making existing knowledge useful. Some of the processes that enable knowledge conversion are a firm's ability to organize, integrate, combine, structure, coordinate, replace or distribute knowledge
Application	Deductive	Processes/activities/mechanisms orientated towards the actual use of the knowledge. Some of the process related to application of knowledge are storage, retrieval, application, contribution, and sharing
Protection	Deductive	Processes/activities/mechanisms designed to protect the knowledge within an organization from illegal or inappropriate use or theft
Organisational performance		
Ability to deal with change	Deductive	Degree to which SE has rapid adaptation to unanticipated changes and coordinates efforts
Teamwork	Deductive	Degree to which SE has ability to coordinates efforts
Creation of social-environmental value	Deductive	Degree to which SE delivers social / environmental values
Income	Deductive	Degree to which SE generates income
Expenditure	Deductive	Degree to which SE manage expenditure
Stakeholder satisfaction	Deductive	Degree to which SE improves stakeholder satisfaction
Customer satisfaction	Deductive	Degree to which SE improves customer satisfaction
Introduction of new products	Deductive	Degree to which SE innovate
Workforce	Deductive	Degree to which SE changes and grows based on number of employees

Legitimacy	Inductive	Degree to which SE legitimized themselves
External support		
Associations - other networks	Inductive	Degree to which SE receives support from associations or other networks
Government	Inductive	Degree to which SE receives support from government
Other organisation	Inductive	Degree to which SE receives support from other organisations
Other SE	Inductive	Degree to which SE receives support from other Social Enterprises
SE network	Inductive	Degree to which SE receives support from SE network
Social Enterprise sector		
Definition	Inductive	Reference to characteristics of the SE sector
Future of the sector	Inductive	Reference to perceived future of the SE sector
Free nodes		
Types of knowledge	Inductive	Reference to different types of knowledge, tacit and explicit, presented in the SE
Small company issues	Inductive	Reference to any outcome or characteristics associated to the small size of SE
Tension between objectives	Inductive	Reference to causes or effects of tension between objectives within the SE
Collective consciousness	Inductive - InVivo	Reference to knowledge that is part of the collective consciousness of the SE
Social Enterprise description		
Age of SE	Deductive	Reference to year of creation / years trading as SE
Economic activity	Deductive	Reference to economic activities undertaken by the SE
Legal structure	Inductive	Reference to legal structure of the SE
No. Employees	Deductive	Reference to number of employees in the SE
Set up process	Inductive	Reference to set up process of the SE
Social activity	Deductive	Reference to social or environmental activities undertaken by the SE
Participants demographics		
Background	Inductive	Reference to previous experience of participant
Job title	Deductive	Reference to job title or description of participant in the SE

Appendix G: Quantitative analysis

1. Quantitative sample description

Figure 1 - In which of the following regions does your Social Enterprise operate?

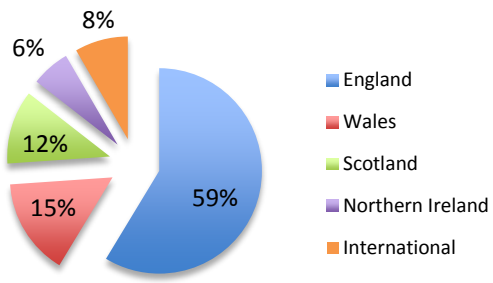


Figure 2 - How long has your enterprise been in existence?

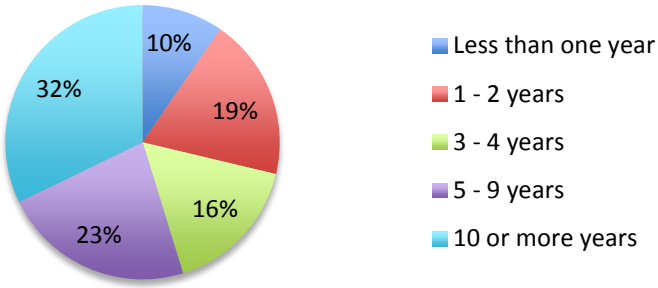


Figure 3 - How many staff currently work for your Social Enterprise?

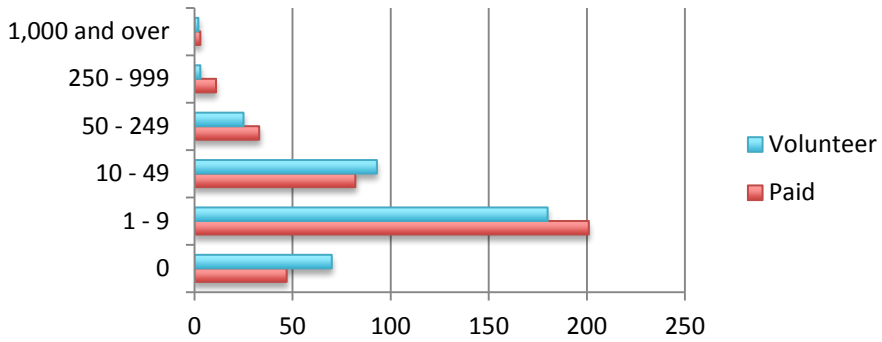


Figure 4 - What is the legal status of your Social Enterprise?

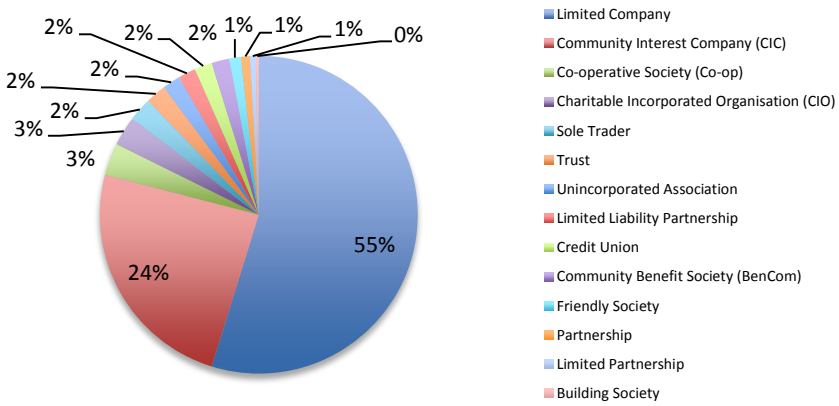


Figure 5 - Which of the following are objectives of your Social Enterprise?

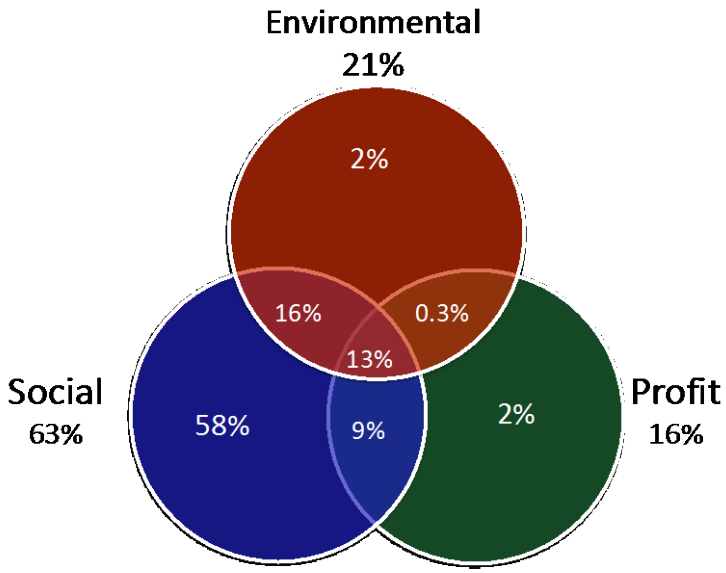


Figure 6 – Gender and age

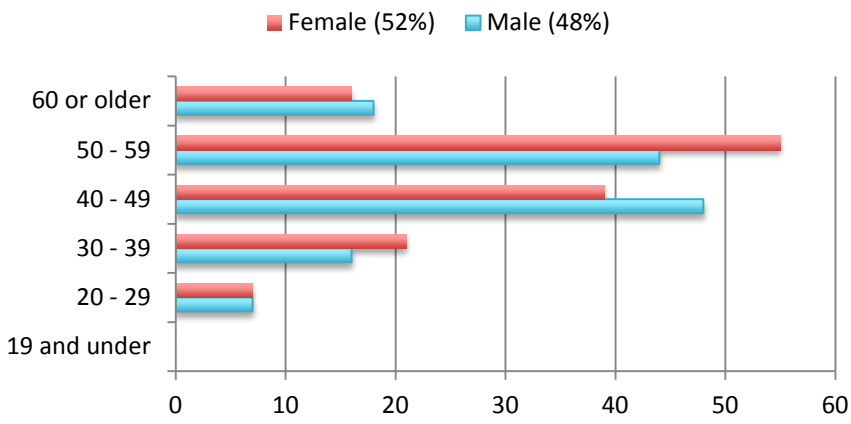
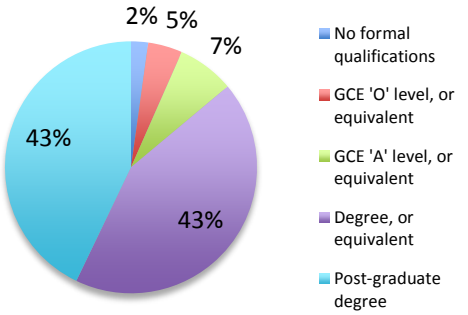


Figure 7 - Highest level of educational achievement and previous professional experience



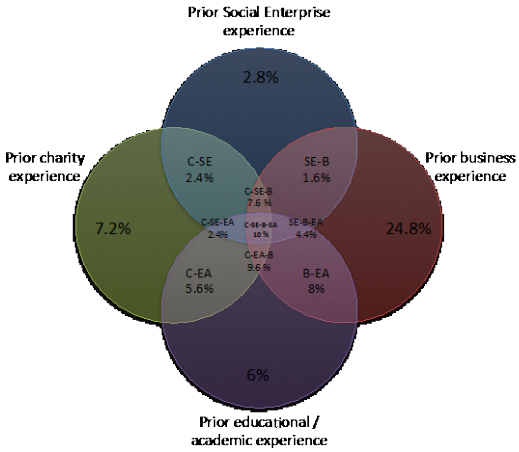
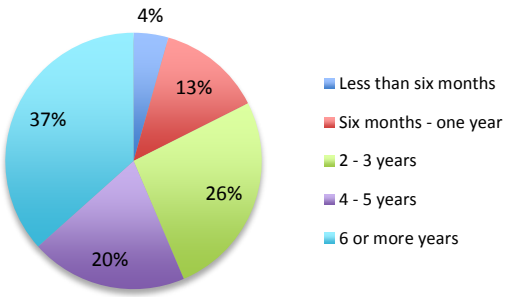
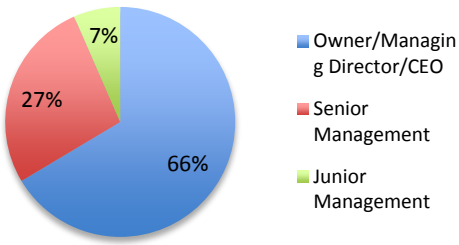


Figure 8 - Highest level of educational achievement and previous professional experience





2. Regression, structural equations

Mission (i = 1,2)	M_i = Mission + err_j Mission = Organisational capabilities + err_j
Learning (i = 1,2,3,4)	L_i = Learning + err_j Learning = Organisational capabilities + err_j
Trust (i = 1,2)	TR_i = Trust + err_j Trust = Organisational capabilities + err_j
Collaboration (i = 1,2)	CL_i = Collaboration + err_j Collaboration = Organisational capabilities + err_j
T-shaped skills (i = 1,2,3)	TS_i = Tshaped + err_j Tshaped = Organisational capabilities + err_j
Extrinsic motivation (i = 1,2,3,4)	EM_i = ExtrinsicMotivation + err_j ExtrinsicMotivation = Organisational capabilities + err_j
Intrinsic motivation (i = 1,2,3)	IM_i = IntrinsicMotivation + err_j IntrinsicMotivation = Organisational capabilities + err_j
Structure (i = 1,2,3,4)	S_i = Structure + err_j Structure = Organisational capabilities + err_j
Technology	T_i = Technology + err_j Technology = Organisational capabilities + err_j

(i = 1,2,3,4)	
Conversion (i = 1,2,3,4)	CV_i = Conversion + err_j Conversion = Process capabilities + err_j
Application (i = 1,2,3,4)	A_i = Application + err_j Application = Process capabilities + err_j
Acquisition (i = 1,2,3,4)	AC_i = Acquisition + err_j Acquisition = Process capabilities + err_j
Protection (i = 1,2,3)	PR_i = Protection + err_j Protection = Process capabilities + err_j
Return (i = 1,2,3)	R_i = Return + err_j Return = Organisational performance + err_j
Workforce and Innovation (i = 1,2)	WI_i = WorkforceInnovation + err_j WorkforceInnovation = Organisational performance + err_j
Stakeholder (i = 1,2)	ST_i = Stakeholder + err_j Stakeholder = Organisational performance + err_j
Internal activities (i = 1,2)	IA_i = InternalActivities + err_j InternalActivities = Organisational performance + err_j
Organisational performance	OP = OrganisationalCapabilities + ProcessCapabilities + err_j

3. Results from Exploratory Factor Analysis

a. Organisational capability:

The EFA developed in SPSS for 29 constructs that integrated organisational capabilities generated the solution presented in Table 1, which contain eight factors that represent the 70% of the variance of the total 29 items. The Bartlett's test of sphericity (.00) indicates that sufficient correlations exist among the variables to proceed. The measure of sampling adequacy obtained (KMO) is considered meritorious (0.864), which means that each variable is almost perfectly predicted by the other variables.

Table 1 - Exploratory Factor Analysis of Organisational Capability

	1	2	3	4	5	6	7	8	Com
T3	0.944								0.923
T2	0.908								0.894
T4	0.890								0.858
T1	0.828								0.807
IM1		0.748							0.641
EM4		0.672							0.589
IM3		0.602							0.578
TS3		0.555							0.507
TS2		0.523							0.61
CL1			0.793						0.746
TR1			0.786						0.71
CL2			0.735						0.757
TR2			0.732						0.741
S3				0.789					0.722
S1				0.741					0.709
S2				0.699					0.674
EM2					0.894				0.839
EM1					0.866				0.769
EM3					0.837				0.771
L2						0.782			0.735
L3						0.698			0.619

L4		0.621		0.645
L1		0.533		0.575
S4			0.74	0.671
M1			0.694	0.682
M2			0.67	0.613
EM5			0.698	0.616
IM2			0.696	0.694
TS1				0.586

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 7 iterations.
Com = Communalities

EFA confirmed the majority of theorised factors, and also indicates some possible constructs that can be merged due to their larger correlation. This is the case of the construct collaboration (CL1 and CL2) and trust (TR1 and TR2), both of which are part of the culture variable. By merging these two constructs, the conceptual meaning is expanded to an element of culture that is related to environment for sharing knowledge based on collaboration and trust. The merging of these two constructs also helps the estimation of the measured model, since four items, instead of two, comprise the construct.

EFA identified a significant relationship between mission variables and structure variable S4, which indicates clearer the rules and procedures in a Social Enterprise. Since the factor loading for these three variables is not too high, it is possible that this aggrupation will be separated during CFA tests. EFA also revealed a possible problem of estimation for People constructs. As it can be demonstrated with EFA results, patterns defined in the literature for the variable People are not clearly presented in the data. The analysis only confirmed the existence of a factor associating items of extrinsic motivation (EM1, EM2, and EM3) and another factor associating items from intrinsic motivation with a variable from reciprocity extrinsic motivation (IM1,IM3 and EM4). To determine which other variables from the People construct could be included in the complete model, another EFA was executed. The test confirmed the high correlation among extrinsic motivation variables EM1, EM2 and EM3, and among intrinsic motivation variables related to self-efficacy and enjoyment by helping others, with the extrinsic motivation item related to reciprocity, which has a clear similarity and possible theoretical support. Though other factors did not have any conceptual support, such as, T-shaped variables TS1 and TS2 with extrinsic reciprocal motivation. Hence, from People constraint, only extrinsic motivation items EM1,EM2 and EM3, and intrinsic motivation items IM1, IM3, EM4, are included in the proposed model.

b. Process capability:

EFA for Process capability's constructs generated the solution presented in Table 2, which contain four factors that represent the 72.5% of the variance of the total 15 items. The Bartlett's test of sphericity (.00) indicates that sufficient correlations exist among the variables

to proceed. The measure of sampling adequacy obtained (KMO) is considered meritorious (.891), which means that each variable is almost perfectly predicted by the other variables.

Table 2 - Exploratory Factor Analysis of Process Capability

	1	2	3	4	Com
AC2	0.819				0.732
AC3	0.793				0.758
AC1	0.73				0.732
AC4	0.702				0.7
A4		0.831			0.779
A1		0.783			0.734
A2		0.765			0.673
A3		0.613			0.596
CV3			0.804		0.75
CV2			0.759		0.773
CV4			0.676		0.685
CV1			0.595		0.708
PR2				0.85	0.74
PR3				0.828	0.783
PR1				0.789	0.738

Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.
a. Rotation converged in 5 iterations.
Com = Communalities

EFA confirmed all the theorised factors, however, it raises a possible cross-loading problem with item CV1, which presents significant factor loading with both Conversion and Acquisition constructs. Thus, this item is not included in the complete model.

c. Organisational performance:

The EFA for Organisational Performance constructs generated the solution presented in Table 3, which contain three factors that represent 63.1% of the variance of the total nine items. The Bartlett's test of sphericity (.00) indicates that sufficient correlations exist among the variables to proceed. The measure of sampling adequacy obtained (KMO) is considered meritorious (.81), which means that each variable is almost perfectly predicted by the other variables.

Table 3 - Exploratory Factor Analysis of Organisational Performance

	1	2	3	Com
R2	0.796			0.648
LI2	0.724			0.578
R3	0.705			0.516
R1	0.554			0.484
LI1	0.486			0.386
IA2		0.856		0.785
IA1		0.786		0.718
ST2			0.867	0.814
ST1			0.788	0.751

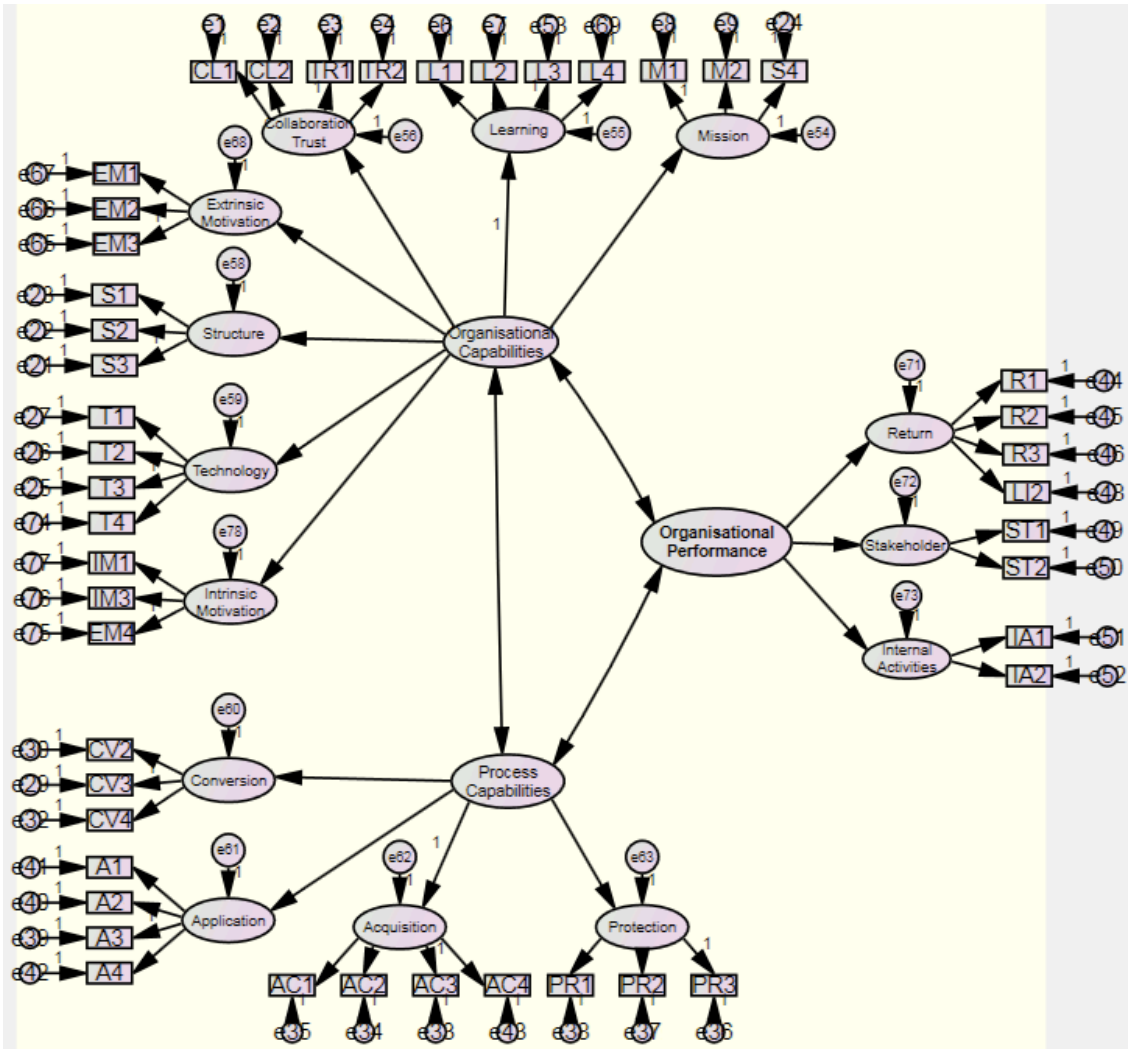
Extraction Method: Principal Component Analysis.
Rotation Method: Varimax with Kaiser Normalization.

a. Rotation converged in 6 iterations.
Com = Communalities

EFA confirmed Stakeholder and Internal Activities factors; however, it grouped R1,R2,R3, LI1 and LI2, which are creation of Social Value, income, expenditure, innovation and workforce respectively. The factor loading and communality value for item LI1 is lower than the recommended cutoff of >0.5, indicating poor representation of this variable in the factor solution. Thus, a final aggrupation of factors for organisational performance variables is: one factor representing more strategic and performance outcomes, such as creation of social value, income, expenditure and workforce (R1,R2,R3 and LI2), and another two factors representing stakeholder perception (ST1 and ST2) and internal activities (IA1 and IA2). Item LI1, innovation, is eliminated from the final factor solution.

Drawing upon EFA results, the final group of constructs on the model is fourteen first-order constructs and three second-order constructs, with two constructs 'under-identified' with two items, six constructs considered 'just-identified' with three items, and six with four items (see Figure 9).

Figure 9 - Obtained initial model on AMOS with 14 constructs



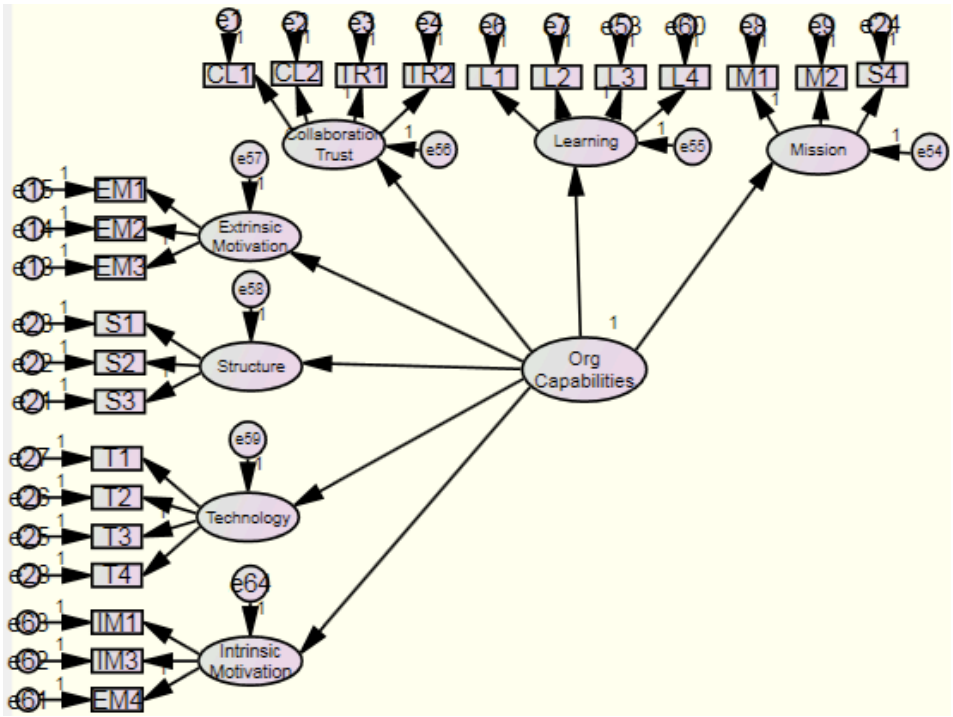
4. Assessment of measurement model validity

a. Organisational capability (OC):

Overall Fit: To assess goodness-of-fit (GOF) in the measurement model, which compares the theory to reality by assessing the similarity of the estimated covariance matrix (theory) to reality (observed covariance matrix), it has been argued a different number of alternative GOF measures. As was defined in Chapter 4, a combination of indexes is used in this research, these are: X^2 ,CMIN/DF, CFI and RMSEA.

The measurement model obtained for OC in the previous section was assessed with AMOS software (see Figure 10). The program advised that a minimum was achieved, thereby assuring that the estimation process yielded and admissible solution without any identification problem. Following on, the program provided an overview of the model fit: chi-square (X^2) value of 676.415 with 245 degrees of freedom and probability value of .000. This probability value indicates that the fit of the data to the hypothesis model is not entirely adequate. However, there are various factors that impact the X^2 significance test (Byrne, 2001). The most important is size. Since the X^2 statistics equals $(N - 1)F_{min}$, this value tends to be substantial when the model does not hold and sample size is large (Joreskog and Sorbom, 1993). Thus, results obtained for this model are not unexpected. Indeed, given this problematic aspect of the likelihood ratio test, it has been developed GOF indexes that take a more pragmatic approach to the evaluation process.

Figure 10 - CFA Model OC



To determine the indexes cutoff values, guidance from Hair *et al.* (2010) was followed based on sample size, model complexity and degrees of error in model specification. For this research, the model situation presents a sample greater than 250 (306) with a number of observed variables greater than 30 (43). With this model situation the cutoff values are:

- X^2: Significant p-value expected;
- CFI: Above 0.90; and
- RMSEA: Values < 0.08 with CFI or0 .90 of higher.

The following are the values and interpretations obtained for the initial model:

- CMIN/df ratio: 2.777, which indicates an inadequate fit, based on the cutoff of ratio lower than 3.00 (Byrne, 2001);
- PGFI: 0.683. This result indicates that the hypothesized model fits the sample data well, based on the cutoff of index expected to be in the 0.50s (Mulaik *et al.*, 1989);
- CFI: 0.892. This index is considered a goodness of fit. The obtained value indicates a poor fit of the model to the data, based on the cutoff of >0.90; and
- RMSEA: 0.076 (LO 90: 0.069 and HI 90: 0.083) this index represents how well a model fits a population. The obtained value indicates that with 90% confidence, the true RMSEA value in the population will fall within the bounds of 0.069 and 0.083, which indicates that the hypothesized model fits the data well, based on the cutoff of <0.8.

Based on the indexes values obtained for the OC model, it is apparent that some modification in specification is needed in order to determine a model that represents better the sample data. To assist in pointing possible areas of misfit, construct validity is evaluated, which is comprised by convergent validity and discriminant validity.

Construct validity - Convergent validity: involves the measurement relationship between items and constructs, and between second-order and first-order constructs. For the first-order factor indicators, higher factor loadings (standardized regression weights statistically significant) above 0.7 were found for the majority of items (16, 67%). Seven factors were between 0.6 and 0.7. The lower values were S4 (0.592) and EM4 (0.602). Corroborating this findings with the cutoff suggested by Hair *et al.* (2010), the factor loadings should be at least 0.5 and ideally 0.7. This confirms that the majority of indicators are strongly related to their associated construct and the misfit needs to be evaluated with other validation tests.

On the other hand, for the second-order factor indicators, lower factor loadings (regression paths that represent second-order factor loadings) below 0.5 were found for two factors,

Extrinsic Motivation (0.250) and Technology (0.419). This indicates that both factors are not related to the associated second-order factor, organisational capabilities.

The second assessment determines the proportion of variance share by indicator of a specific construct. To identify this, the average variance extracted (AVE) was obtained for each construct, as well as their reliability. Results are presented in Table 4.

Table 4 - AVE and construct reliability for OC model

Construct	Average Variance Extracted (AVE)	Construct Reliability
Org_Capabilities	44.5%	0.84
Collaboration_Trust	60.8%	0.86
Learning	42.6%	0.75
Mission	50.2%	0.75
Extrinsic_Motivation	68.3%	0.86
Structure	58.1%	0.81
Intrinsic_Motivation	40.4%	0.70

Results for the OC model presented three constructs with inadequate convergent validity based on the cutoff of 50% suggested by Hair *et al.* (2010). This indicates that, on average, there is more error remaining in Organisational Capabilities, Learning and Intrinsic Motivation than there is variance explained by the latent factor structure that has been imposed on the measure. In terms of reliability, all values are greater than 0.7 indicating that internal consistency exists.

Diagnostic measures: Another way of diagnosing measurement model problems is by analysing the standardized residuals, which represents the individual differences between observed covariance terms and fitted covariance terms. For the OC model, the largest residual was -4.384 between L2 and S3, which exceed the cutoff of > 4.0 suggested by Hair *et al.* (2010), indicating a possible problem with the relationship between those two items.

The second type of information related to misspecification reflects the extent to which the hypothesized model is appropriately described, which is captured by the modification indices (MIs). MI is an estimate of the decrease in the X^2 test statistic that would result by freeing a previously fixed parameter in the model (Bollen and Noble, 2011). MIs for Model OC suggest an evidence of misspecification associated with the pairing of error terms associated with item TR1 and TR2 (e3 and e4; MI = 26.485). A reasonable cause for this is a possible high degree of overlap in term content based on their strong relation to organisational trust.

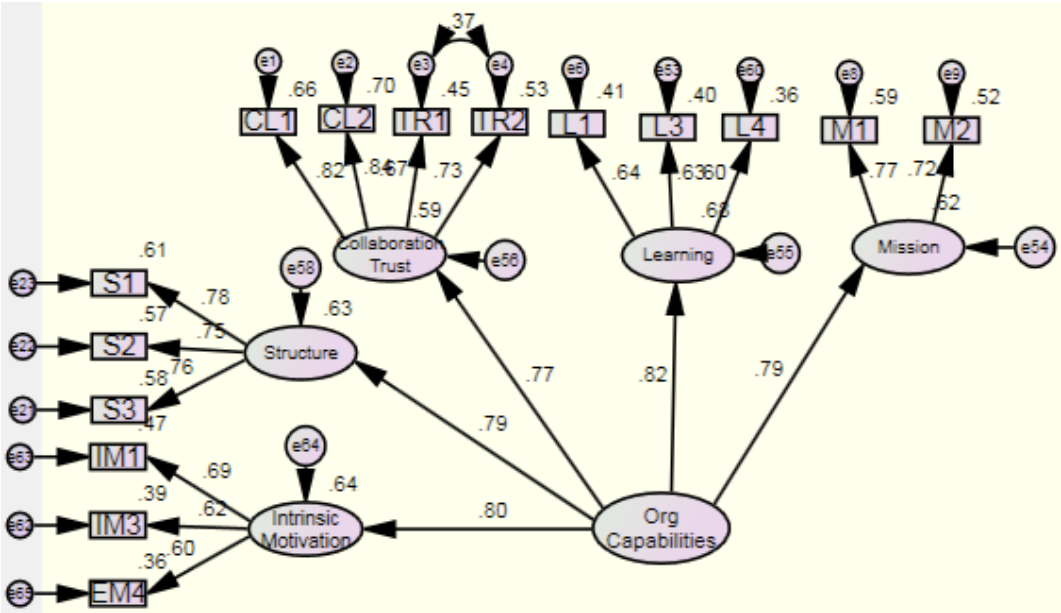
Provided with the information related to the OC model fit and possible areas of model misspecification and construct validity, it can be concluded that the hypothesized model need to be re-specified and re-estimated, with possible specification problems related to Extrinsic

Motivation, Technology, Learning, Intrinsic Motivation, S4 item and error e3 and e4. It is important to emphasise that by continuing with a *post hoc* model fitting, the CFA changed for an exploratory nature.

Given the information from the mystification analysis, it can be concluded that first-order factors Extrinsic Motivation and Technology, and items L2 (Learning) and S4 (Mission) may be inappropriate for use in this model. Additionally, a correlation between error e3 and e4 is included in light of an apparent item content overlap and, as Bentler and Chou (1987) warned, forcing large error terms to be uncorrelated is rarely appropriate with real data.

Respecification: As a consequence, it was considered prudent to re-specify the model with Extrinsic Motivation, Technology, L2 and S4 items deleted, and covariance between e3 and e4 added; all subsequence analysis in this section, then, are based on the five-item revision, which is labelled here as Model OC-2 (see Figure 11).

Figure 11 - CFA Model OC-2



The following are the values and interpretations obtained for the Model OC-2:

- Chi-square (X^2) value of 238.203 with 84 degrees of freedom and probability value of .000.
- CMIN/df ratio: 2.836, which indicates an adequate fit, based on the cutoff of ratio lower than 3.00 (Byrne, 2001);
- PGFI: 0.634. This result indicates that the hypothesized model fits the sample data well, based on the cutoff of index expected to be in the 0.50s (Mulaik *et al.*, 1989);
- CFI: 0.916. This index is considered a goodness of fit. The obtained value indicates a good fit of the model to the data, based on the cutoff of >0.90; and

- RMSEA: 0.078 (LO 90: 0.066 and HI 90: 0.089) this index represents how well a model fits a population. The obtained value indicates that with 90% confidence, the true RMSEA value in the population will fall within the bounds of 0.066 and 0.089, which indicates that the hypothesized model fits the data well, based on the cutoff of <0.8.

In terms of convergent validity, both second-order and first-order factors have higher factor loadings above 0.7 (13, 65%), and the lower factor loading was for EM4 (0.603), showing that indicators are strongly related to their associated construct.

By analysing the proportion of variance share by indicator of a specific construct, AVA values were obtained for each construct (see Table 5) and confirm that the majority of constructs have adequate convergent validity based on the cutoff of 50% suggested by Hair *et al.* (2010). In terms of reliability, all values are greater than 0.7 indicating that internal consistency exists.

Table 5 - AVE and construct reliability for OC-2 model

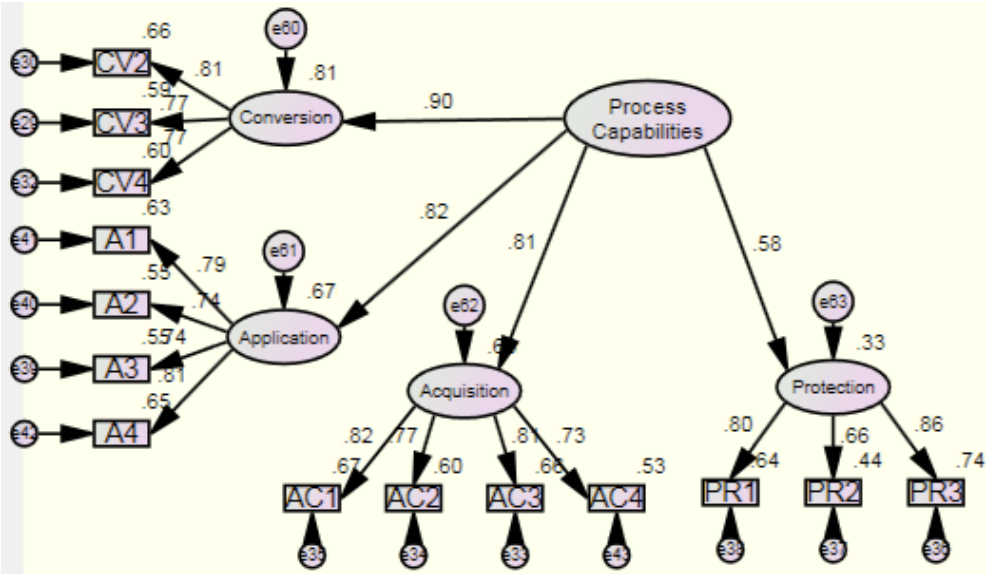
Construct	Average Variance Extracted (AVE)	Construct Reliability
Org_Capabilities	62.8%	0.9
Collaboration_Trust	58.5%	0.8
Learning	44.2%	0.7
Mission	55.8%	0.7
Structure	58.1%	0.8
Intrinsic_Motivation	44.9%	0.7

Goodness-of-fit statistics related to Model OC-2 reveal that deletion of Extrinsic Motivation and Technology as second-order factors indicators, and L2 and S4 as first-order factor indicators, made a substantially large improvement on model fit. In particular, the overall Chi square value decreased, while the CFI value increased from 0.892 to 0.916. In reviewing the goodness-of-fit statistics for Model OC-2, it can be concluded that the hypothesized model for Organisational Capabilities fits the data very well as evidenced by the CFI of 0.916. Although lower AVE values were obtained for both Learning and Instincts Motivation items, these constructs were retained in the model due to their high content validity, as Hair *et al.* (2010, p713) stated: 'it might buy a little fit at the expense of some conceptual consistency'.

b. Process capability (PC):

Overall Fit: The measurement model obtained for PC was assessed with AMOS software (see Figure 12). The program advised that minimum was achieved, thereby assuring that the estimation process yielded an admissible solution without any identification problem.

Figure 12 - CFA Model PC



The following are the values and interpretations of goodness-of-fit statistics obtained for the Model PC:

- Chi-square (X^2) value of 234.797 with 73 degrees of freedom and probability value of .000.
- CMIN/df ratio: 3.216, which indicates an possible inadequate fit, based on the cutoff of ratio lower than 3.00 (Byrne, 2001);
- PGFI: 0.626. This result indicates that the hypothesized model fits the sample data well, based on the cutoff of index expected to be in the 0.50s (Mulaik *et al.*, 1989);
- CFI: 0.930. This index is considered a goodness of fit. The obtained value indicates a good fit of the model to the data, based on the cutoff of >0.90; and
- RMSEA: 0.085 (LO 90: 0.073 and HI 90: 0.098) this index represents how well a model fits a population. The obtained value indicates that with 90% confidence, the true RMSEA value in the population will fall within the bounds of 0.073 and 0.098, which represents reasonable errors of approximation in the population (Byrne, 2010).

Convergent validity was obtained for all four constructs with statistical significance, with 16 (88%) items with more than 0.7 factor loadings, one value between 0.6 and 0.7, and 0.577 for Protection construct. The proportion of variance share by indicator of a specific construct, which is obtained by calculating the AVA values (see Table 6), indicates that all constructs have adequate convergent validity based on the cutoff of 50% suggested by Hair *et al.* (2010). In terms of reliability, all values are greater than 0.7 indicating that internal consistency exists.

Table 6 – AVE and construct reliability for PC model

Construct	Average Variance	Construct

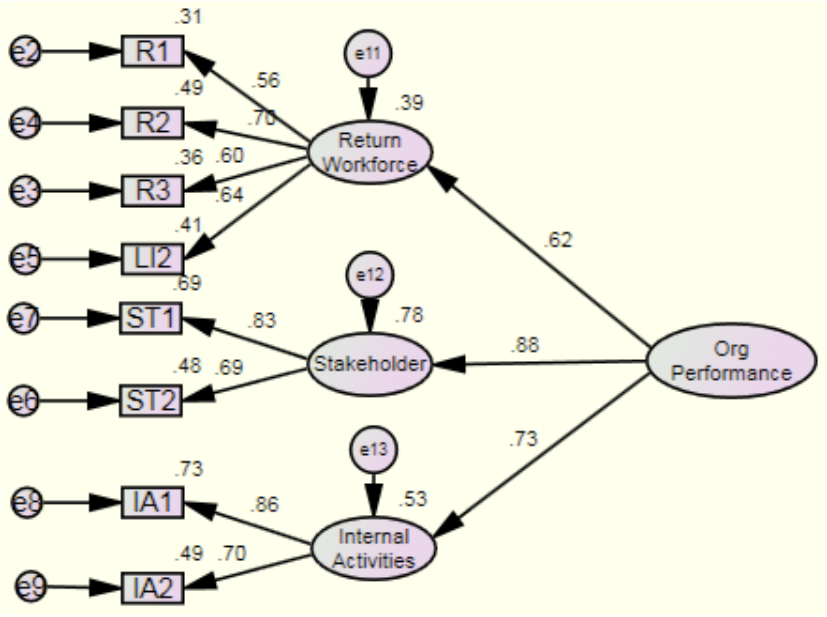
	Extracted (AVE)	Reliability
Process_Capabilities	61.8%	0.86
Conversion	61.1%	0.82
Acquisition	61.5%	0.86
Protection	61.9%	0.83
Application	59.0%	0.85

On the basis of the goodness-of-fit and convergent validity results, it can be concluded that the hypothesized Process Capabilities model fits the sample data well. Therefore, it is not necessary to determine evidence of misspecification in the model. Although a higher value was obtained for RMSEA index, which indicates possible problems of misfit, MacCallum *et al.* (1996) suggested that this value can be influenced seriously by sample size as well as model complexity. Thus, considering the significant values obtained with other indices, the RMSEA value obtained for Model PC is considered acceptable.

c. Organisational Performance (OP):

Overall Fit: The measurement model obtained for OP in the previous section was assessed with AMOS software (see Figure 13). The program advised that a minimum was achieved, thereby assuring that the estimation process yielded an admissible solution without any identification problem.

Figure 13 - CFA Model OP



The following are the values and interpretations of goodness-of-fit statistics obtained for the Model OP:

- Chi-square (X^2) value of 34.569 with 17 degrees of freedom and probability value of 0.007.

- CMIN/df ratio: 2.033, which indicates an possible inadequate fit, based on the cutoff of ratio lower than 3.00 (Byrne, 2001);
- PGFI: 0.459. This result indicates that the hypothesized model fits the sample data well, based on the cutoff of index expected to be in the 0.50s (Mulaik *et al.*, 1989);
- CFI: 0.972. This index is considered a goodness of fit. The obtained value indicates a good fit of the model to the data, based on the cutoff of >0.90; and
- RMSEA: 0.058 (LO 90: 0.030 and HI 90: 0.086) this index represents how well a model fits a population. The obtained value indicates that with 90% confidence, the true RMSEA value in the population will fall within the bounds of 0.030 and 0.083, which indicates that the hypothesized model fits the data well, based on the cutoff of <0.8.

Convergent validity was obtained for all second and first-order indicators with statistical significance, with five (46%) items with more than 0.7 factor loadings, four with values between 0.6 and 0.7, and only two with values of 0.560 (R1) and 0.598 (R3). The proportion of variance share by indicator of a specific construct, which is obtained by calculating the AVA values (see Table 7), indicates that second-order factor, stakeholder perception and internal activities have adequate convergent validity based on the cutoff of 50% suggested by Hair *et al.* (2010). However, Return with Workforce presented lower value indicating that there is more error remaining in Return than there is variance explained by the latent factor structure that has been imposed on the measure. In terms of reliability, all values are greater than 0.7 indicating that internal consistency exists.

Table 7 - AVE and construct reliability for OP model

Construct	Average Variance Extracted (AVE)	Construct Reliability
Org_Performance	56.4%	0.79
SocialValue_Innovation	39.3%	0.72
Internal_Activities	61.2%	0.76
Stakeholder	58.4%	0.74

In reviewing the goodness-of-fit statistics, it can be confirmed that the hypothesized Organisational Performance model fits the data very well as evidenced by the CFI of 0.972 and RMSEA of 0.058.

d. Complete Measurement Model:

Overall Fit: AMOS software advised that minimum was achieved, thereby assuring that the estimation process yielded an admissible solution without any identification problem. The following are the values and interpretations of goodness-of-fit statistics obtained for the Complete Model CM:

- Chi-square (X^2) value of 1212.292 with 613 degrees of freedom and probability value of 0.000.
- CMIN/df ratio: 1.978, which indicates an possible inadequate fit, based on the cutoff of ratio lower than 3.00 (Byrne, 2001);
- PGFI: 0.713. This result indicates that the hypothesized model fits the sample data well, based on the cutoff of index expected to be in the 0.50s (Mulaik *et al.*, 1989);
- CFI: 0.885. This index is considered a goodness of fit. The obtained value indicates a poor fit of the model to the data, based on the cutoff of >0.90; and
- RMSEA: 0.057 (LO 90: 0.052 and HI 90: 0.061) this index represents how well a model fits a population. The obtained value indicates that with 90% confidence, the true RMSEA value in the population will fall within the bounds of 0.052 and 0.061, which indicates that the hypothesized model fits the data well, based on the cutoff of <0.8.

Although all goodness-of-fit for second-order models OC, PC and OP were found to be particularly good, the solution for the complete model is somewhat problematic. Based on the indexes' values obtained for the complete model, it is apparent that some modification in specification is needed in order to determine a model that represents better the sample data. To assist in pointing out possible areas of misfit, construct validity and modification indices are evaluated.

Construct validity - Convergent validity: For the first-order factor indicators, higher factor loadings (standardized regression weights statistically significant) above 0.7 were found for the majority of items (26, 70.2%). Nine factors were between 0.6 and 0.7, and two items have factor loading of 0.566 (R1) and 0.598 (R3). For the second-order factor indicators, similar findings were obtained with 84% (10) constructs with factor loading above 0.7, one between 0.6 and 0.7 (Return) and the lower value was for Protection (0.559). Corroborating these findings with the cutoff suggested by Hair *et al.* (2010), the factor loadings should be at least 0.5 and ideally 0.7. This confirms that the majority of indicators are strongly related to their associated construct, except from 'Protection Processes' and 'Return' items. To continue with the evaluations of the misfit, it is required to evaluate the model with other validation test.

The second assessment determines the proportion of variance share by indicators of a specific construct, which is determined with the average variance extracted (AVE). For the complete model, the AVA and reliability values are presented in Table 8. The findings confirmed that majority of second and first-order factor indicators have adequate convergent validity based on the cutoff of 50% suggested by Hair *et al.* (2010). However, concurring with findings from CFA of OC and OP models, Learning, Intrinsic Motivation and Return constructs present some problems of convergent validity, indicating a possible misspecification with these variables. In

terms of reliability, all values, except from two, that present general convergent validity problems, are greater than 0.7, indicating that internal consistency exists.

Table 8 - AVE and construct reliability for Complete Model

Construct	Average Variance Extracted (AVE)	Construct Reliability
Organisational_Capabilities	63.8%	0.90
Process_Capabilities	61.4%	0.86
Organisational_Performance	56.9%	0.80
Collaboration_Trust	58.4%	0.85
Learning	38.7%	0.65
Mission	55.5%	0.71
Structure	58.5%	0.81
Intrinsic_Motivation	40.6%	0.67
Conversion	61.5%	0.83
Acquisition	61.5%	0.86
Protection	60.9%	0.82
Application	59.3%	0.85
Internal_Activities	60.4%	0.75
Stakeholder	58.0%	0.73
Return	39.2%	0.72

By analysing the standardized residuals, which represents the individual differences between observed covariance terms and fitted covariance terms, the largest residual for the complete model was 3.890 between M2 and IA2. This value does not exceed the cutoff of > 4.0 suggested by Hair *et al.* (2010), thus, the misfit needs to be evaluated with other validation measures.

The modification indices (MIs) of the complete model suggest covariances between error terms and factors (e69 and e58), which make any substantive sense. Given the meaninglessness of these MIs, the attention is focused only on those representing cross-loadings and error covariances. The MIs for covariances represent a clear evidence of misspecification associated with the pairing of error terms associated with items AC1 and AC2 (e35-334; MI=20.211). Similar to results in OC model, the misspecified error covariances are due to overlap in item content, in this case, 'Acquisition Processes'.

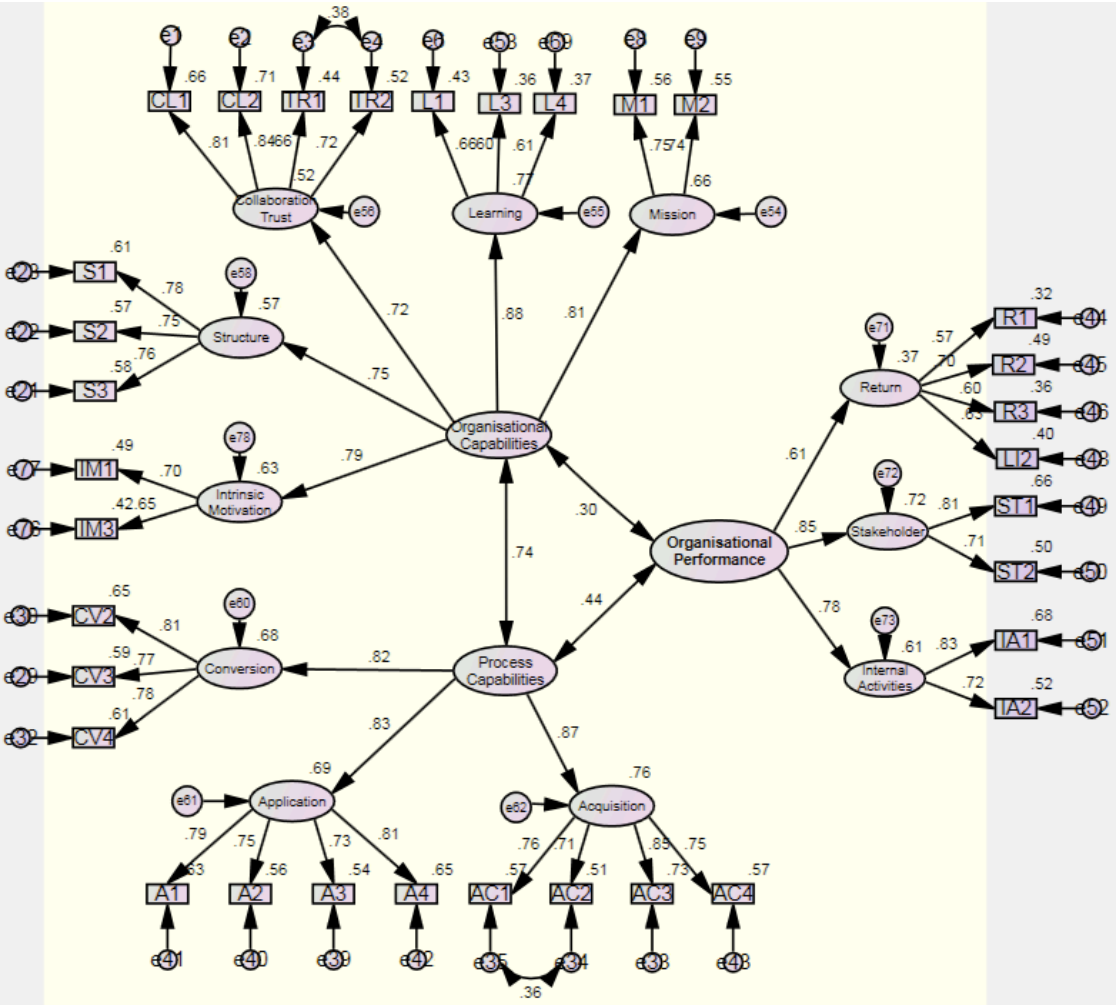
On the basis of the goodness-of-fit and convergent validity results for the Complete model, it can be concluded that the hypothesized, three, second-order factor CFA model does not fit the sample data well. Thus, the hypothesized model needs to be re-specified and re-estimated, with possible specification problems related to 'Protection', 'Return', and error e35 and e34.

Given the information from the mystification analysis, it can be inferred that first-order factor Protection may be inappropriate to use in this model due to its lower factor loading that

demonstrated a weak relation to its associated construct, Process Capabilities. Although the results suggested that R1 item must be deleted due to its lower factor loading, this item is retained even if diagnostic information suggests that it is problematic due to its high content validity, as Hair *et al.* (2010, p713) stated: 'it might buy a little fit at the expense of some conceptual consistency'. Therefore, a decision was made to keep R1 item (social value) due to its importance in measuring organisational performance in Social Enterprises. Another possible item candidate for deletion is EM4, since this item has the lower factor loading in the Intrinsic Motivation construct, which presented a poorer AVE value. The last suggestion by the mystification analysis is the inclusion of a correlation between error e34 and e35 from AC2 and AC1 respectively. As was justified in the OC model, this relationship is accepted in the model due to the large content similarity between items.

As a result, the model has been re-specified with 'Protection' and EM4 deleted, and a covariance between e34 and e35 was added; all subsequence analyses in this section are based on the fourteen-item revision, which is labelled here as Model CM-2 (see Figure 14).

Figure 14 - CFA Complete Model 2



The following are the values and interpretations obtained for the Complete Model 2:

- Chi-square (X^2) value of 917.052 with 479 degrees of freedom and probability value of 0.000.
- CMIN/df ratio: 1.915, which indicates an adequate fit, based on the cutoff of ratio lower than 3.00 (Byrne, 2001);
- PGFI: 0.717. This result indicates that the hypothesized model fits the sample data well, based on the cutoff of index expected to be in the 0.50s (Mulaik *et al.*, 1989);
- CFI: 0.904. This index is considered a goodness of fit. The obtained value indicates a good fit of the model to the data, based on the cutoff of >0.90; and
- RMSEA: 0.055 (LO 90: 0.049 and HI 90: 0.060) this index represents how well a model fits a population. The obtained value indicates that with 90% confidence, the true RMSEA value in the population will fall within the bounds of 0.049 and 0.060, which indicates that the hypothesized model fits the data well, based on the cutoff of <0.8.

By analysing the convergent validity, both second-order and first-order factor indicators have higher factor loadings above 0.7 (33, 75%), and the lower factor loading was for R1 (0.567), indicating that indicators are strongly related to their associated construct.

In terms of AVA values (see Table 9), it is confirmed that the majority of constructs have adequate convergent validity based on the cutoff of 50% suggested by Hair *et al.* (2010). In terms of reliability, almost all values are greater than 0.7 indicating that internal consistency exists.

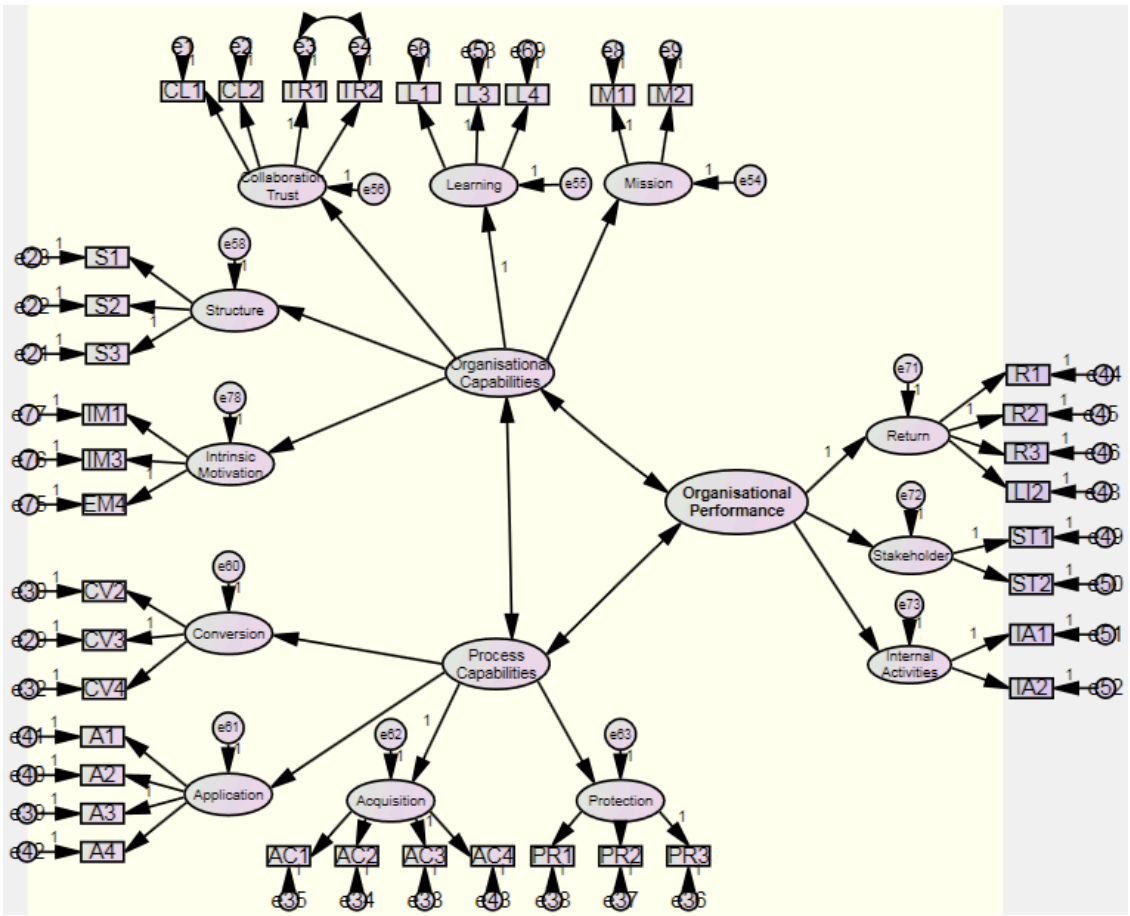
Table 9 - AVE and construct reliability for Complete Model-2

Construct	Average Variance Extracted (AVE)	Construct Reliability
Organisational_Capabilities	62.7%	0.89
Process_Capabilities	71.0%	0.88
Organisational_Performance	56.8%	0.80
Collaboration_Trust	58.3%	0.85
Learning	38.7%	0.65
Mission	55.4%	0.71
Structure	58.5%	0.81
Intrinsic_Motivation	45.5%	0.62
Conversion	61.5%	0.83
Acquisition	59.5%	0.85
Application	59.3%	0.85
Internal_Activities	60.4%	0.75
Stakeholder	58.0%	0.73
Return	39.2%	0.72

Goodness-of-fit statistics related to Complete Model 2 reveal that deletion of Protection as second-order factors indicator, and EM1 as first-order factor indicator, made a substantially large improvement on model fit. In particular, the overall Chi square value decreased, while

the CFI value increased from 0.885 to 0.904. Thus, it can be concluded that the hypothesized model fits the data very well as evidenced by the CFI of 0.904. Although lower AVE values were obtained for both Learning and Instincts Motivation items, these constructs were retained in the model due to their high content validity.

Figure 15 - CFA Complete Measurement Model



5. Assessing the structural model validity

SEM Complete Model was assessed with AMOS software and minimum was achieved, thereby assuring that the estimation process yielded and admissible solution without any identification problem. Following, the program provided an overview of the model fit: chi-square (X^2) value of 917.052 with 479 degrees of freedom and probability value of 0.000. Given the known sensibility of this statistic to sample size, more reasonable and appropriate indices of fit are used, as stated in previous CFA models. The main indices used are CFI and RMSEA.

In reviewing these fit indices, it can be observed that the hypothesized model is a relatively good fit as indicated by a **CFI of 0.904 and a RMSEA value of 0.55**, which is well within the recommended range of acceptability (<0.05 to 0.08). Although a review of the Modification Indices (MIs) reveals covariance between an error term and factor (e58-e69; MI= 24.8), this does not make any functional sense, particularly as this value relates to an error covariance. In terms of MIs for a parameter that represents the structural paths in the model (regression

weights), no values were significantly high, with a highest value of 6.889 and expected parameter change value of only 0.156.

To continue with fit assessment of the full model, initially hypothesized paths are evaluated whether they are irrelevant to the model as evidenced from their statistical non-significance. In reviewing structural parameter estimates in Table 10, it can be highlighted that one parameter, representing the path from Organisational Capabilities and Organisational Performance, is non-significant. In the interest of parsimony, then, a final model of KM capabilities may need to be estimated with this structural path deleted from the model. Nonetheless, due to the importance of this hypothesis, it is necessary to test the possibility of having an indirect relationship between these two variables, resulting in possible modification to the hypothesised relationship.

Table 10 - Maximum likelihood estimates for SEM Complete Model 2

Factor 1		Factor 2	Estimate	S.E.	C.R.	P
Structural paths						
Organisational_Performance	<---	Organisational_Capability	-0.051	0.12	-0.424	0.671
Organisational_Performance	<---	Process_Capability	0.42	0.125	3.358	***
Mission	<---	Organisational_Capability	0.974	0.129	7.528	***
Learning	<---	Organisational_Capability	1			
Collaboration_Trust	<---	Organisational_Capability	0.705	0.1	7.025	***
Structure	<---	Organisational_Capability	0.911	0.121	7.53	***
Conversion	<---	Process_Capability	1.06	0.101	10.449	***
Application	<---	Process_Capability	0.798	0.078	10.292	***
Acquisition	<---	Process_Capability	1			
Return	<---	Organisational_Performance	1			
Stakeholder	<---	Organisational_Performance	1.079	0.177	6.092	***
Internal_Activities	<---	Organisational_Performance	1.013	0.165	6.133	***
Intrinsic_Motivation	<---	Organisational_Capabilities	0.8	0.112	7.124	***
Factor covariances						
Organisational_Capability	<-->	Process_Capability	.169	.026	6.436	***
Factor Variances						
Organisational_Capability			.213	.046	4.602	***
Process_Capability			.248	.035	7.078	***

***probability <.000

To determine the indirect effect between OC and OP, a mediation model is studied, where the effect of OC is transmitted to OP though its effect on PC. This is undertaken using the analysis 'indirect, direct and total effects' of AMOS and its results are presented in Table 11.

Table 11 - Indirect Effect analysis

	Organisational _Capabilities	Process _Capabilities	Organisational _Performance
Organisational _Capabilities	.000	.000	.000
Process _Capabilities	.333	.000	.000
Organisational _Performance	.000	.000	.000

From Table 11 it can be observed that, even if OC does not have a direct effect on OP, it could have an indirect effect through its direct effect on PC. To determine the statistical significance of this indirect effect, the bootstrapping analysis on AMOS is used. Using the percentile method, a p of 0.015 is obtained, indicating that there is a significant indirect effect between OC on OP through its effect on PC. This is because the p value is below the cut-of of 0.05.

Both the unstandardized and standardized estimates are the same as presented in Table 12. However, only structural paths and factor variances are included due to the length of the original table, though, the rest of factors and errors variances were found to be statistically significant.

Table 12 - Maximum likelihood estimates for SEM Final Model

Factor 1		Factor 2	Estimate	S.E.	C.R.	P
Structural paths						
Process_Capabilities	<---	Organisational_Capabilities	0.79	0.107	7.432	***
Organisational_Performance	<---	Process_Capabilities	0.420	0.125	3.358	***
Organisational_Performance	<---	Organisational_Capabilities	-0.051	0.120	-0.424	0.671
Mission	<---	Organisational_Capabilities	0.976	0.13	7.533	***
Learning	<---	Organisational_Capabilities	1			
Collaboration_Trust	<---	Organisational_Capabilities	0.705	0.1	7.021	***
Structure	<---	Organisational_Capabilities	0.91	0.121	7.524	***
Conversion	<---	Process_Capabilities	1.06	0.101	10.45	***
Application	<---	Process_Capabilities	0.797	0.077	10.287	***
Acquisition	<---	Process_Capabilities	1			
Return	<---	Organisational_Performance	1			
Stakeholder	<---	Organisational_Performance	1.073	0.176	6.098	***
Internal_Activities	<---	Organisational_Performance	1.015	0.165	6.136	***
Intrinsic_Motivation	<---	Organisational_Capabilities	0.801	0.112	7.124	***
Standardized regression weights						
Process_Capabilities	<---	Organisational_Capabilities	0.735			
Organisational_Performance	<---	Process_Capabilities	0.483			
Organisational_Performance		Organisational_Capabilities	-0.054			
Mission	<---	Organisational_Capabilities	0.811			
Learning	<---	Organisational_Capabilities	0.876			
Collaboration_Trust	<---	Organisational_Capabilities	0.718			
Structure	<---	Organisational_Capabilities	0.753			

Conversion	<---	Process_Capabilities	0.825			
Application	<---	Process_Capabilities	0.832			
Acquisition	<---	Process_Capabilities	0.871			
Return	<---	Organisational_Performance	0.613			
Stakeholder	<---	Organisational_Performance	0.845			
Internal_Activities	<---	Organisational_Performance	0.783			
Intrinsic_Motivation	<---	Organisational_Capabilities	0.791			
Factor Variances						
Organisational_Capabilities			.213	.046	4.600	***

***probability <.000

Table 13 - Squared Multiple Correlations for SEM Final Model

	Estimate
Process_Capability	0.540
Organisational_Performance	0.198
Intrinsic_Motivation	0.626
Return	0.374
Stakeholder	0.721
Internal_Activities	0.610
Application	0.693
Acquisition	0.757
Conversion	0.680
Structure	0.568
Mission	0.656
Learning	0.768
Collaboration_Trust	0.516

6. Descriptive statistics of Organisational Capability and Process Capability

The overall stage of each variable that integrates KMCs is illustrated in the spider chart/radar chart presented in Figure 16. The figure specifies the average value obtained in the indicators of each KMCs variable for the total sample (n=432) and for each SE size category. It can be inferred from the graph that the stage of each KMCs variable varies significantly between SEs of different sized. The statistical analysis to assess these variations is presented in Table 14, 15 and 16.

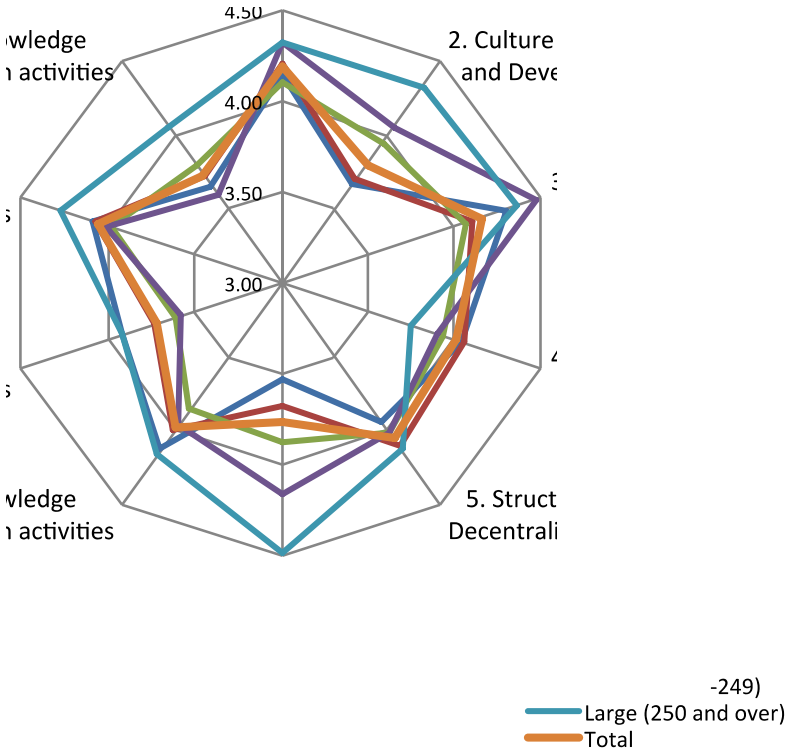


Figure 16 – Spider chart of average values for each variable of KMCs in SEs

The indicators analysed in the following tables are measured with a Likert-type scale of five. In order to avoid inferential error, this research treats these measures as ordinal data. This is because, although the response levels do have relative position, it cannot be presumed that participants perceive the difference between adjacent levels to be equal, a requirement for interval data (Clason and Dormody, 1994). Therefore, apart from the mean, other measures of central tendency are used, such as, median and mode.

Table 14 – Organisational Capability descriptive statistics

ID	Statement	Mean	Median	Mode	Std. Dev.	Range
Collaboration and Trust						
CL1	Are supportive and helpful	4.27	4	4	0.77	4
CL2	Ask other members for assistance when needed	4.12	4	4	0.763	4
TR1	Are trustworthy	**4.36**	4	**5**	0.751	4
TR2	Have reciprocal faith in others' decisions towards enterprise interests	4	4	4	0.771	4
Learning						
L1	Are satisfied by the contents of training and development programmes	3.71	4	4	0.861	4
L3	Encourages people to attend seminars, conferences and symposia	**3.92**	4	4	0.882	4
L4	Provides opportunities for informal individual development such as work assignments and job rotation	3.76	4	4	0.914	4
Mission						

M1	Has a clear mission that gives purpose to members' work	**4.27**	4	4	0.741	4
M2	Has a shared vision of what the Social Enterprise will be like in the future	4.06	4	4	0.838	4
	Structure					
S1	Are encouraged to make their own decisions related to their work	**4.13**	4	4	0.757	4
S2	Participate in the decision-making process of the Social Enterprise	4.08	4	4	0.843	4
S3	Have flexibility to make informal agreements to handle situations	3.99	4	4	0.773	4
	Intrinsic motivation					
IM1	Are confident in their ability to provide knowledge to others in the enterprise	3.89	4	4	0.676	3
IM3	Feel good helping someone solve problems by sharing their knowledge	**4.14**	4	4	0.624	2
	Elements not included in Final KMC-SE Conceptual Model					
	Technology					
T1	Provides IT support for collaborative work among enterprise members	3.62	4	4	0.999	4
T2	Provides IT support for communication involving the enterprise	3.79	4	4	0.96	4
T3	Provides IT support for retrieving necessary information	3.82	4	4	0.926	4
T2	Provides IT support for storing information	**3.86**	4	4	0.895	4
	T-shaped Skills					
TS1	Can understand not only their own tasks but also others' tasks	3.87	4	4	0.727	4
TS2	Can communicate well with other members	4.04	4	4	0.711	4
TS3	Are specialists in their own area	**4.19**	4	4	0.706	3
	Extrinsic Motivation					
EM1	Receive bonuses in return for knowledge sharing	2.08	2	2	0.973	4
EM2	Receive increased promotion opportunities in return for knowledge sharing	2.42	2	3	1.048	4
EM3	Receive increased job security in return for knowledge sharing	2.64	3	3	1.093	4
EM4	Share knowledge because they believe it strengthens ties between them and the enterprise	**3.94**	4	4	0.764	4
EM5	Share knowledge because they expect to receive knowledge in return	3.51	4	4	0.891	4

Figure 17 – Frequency agreement Organisational Capability

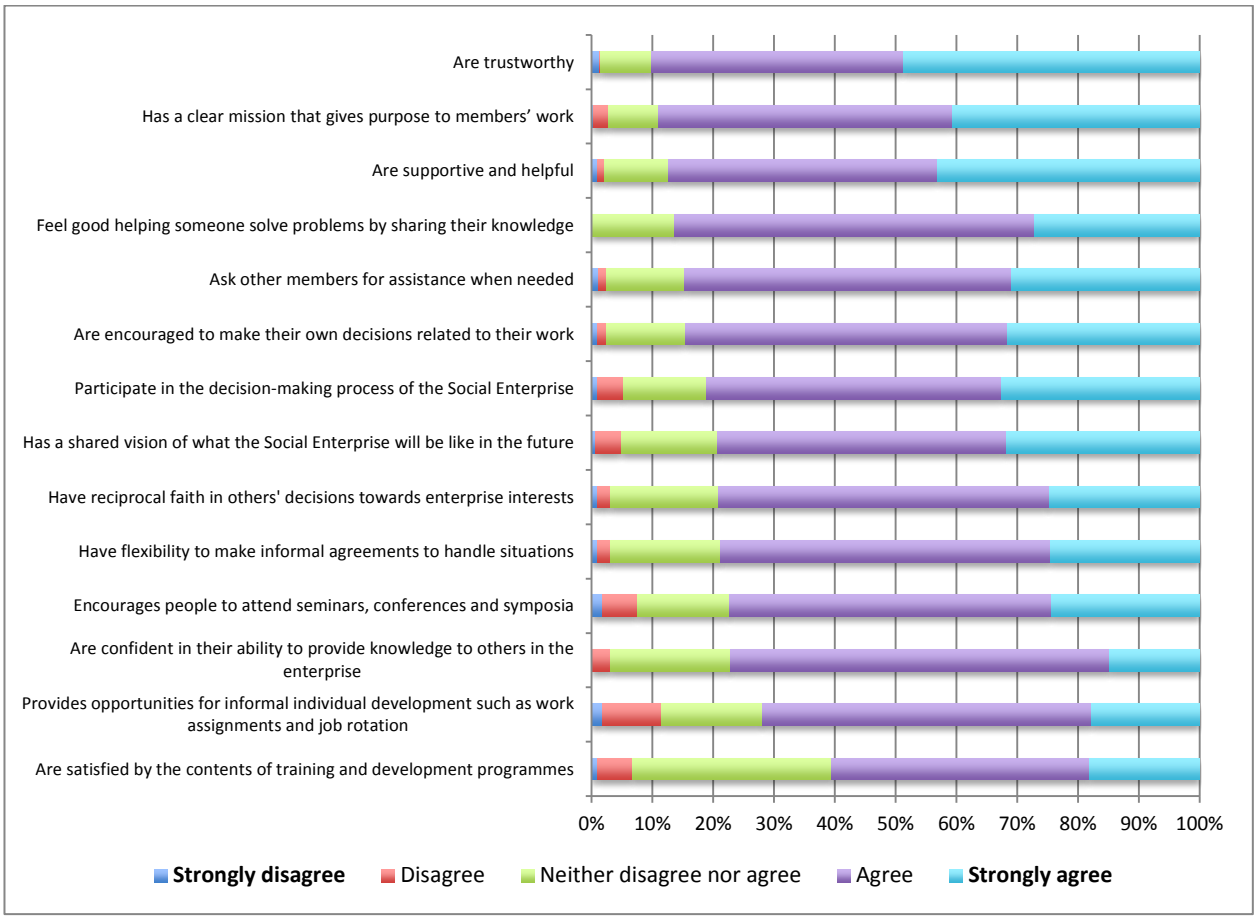


Table 15 – Process Capability descriptive statistics

ID	Statement	Mean	Median	Mode	Std. Dev.	Range
Application						
A1	Using lessons learned from projects to improve successive projects	3.98	4	4	0.722	3
A2	Using knowledge in development of new products	4.04	4	4	0.706	3
A3	Making knowledge accessible to those who need it	**4.12**	4	4	0.652	3
A4	Using knowledge to adjust strategic direction	4.08	4	4	0.692	3
Acquisition						
AC1	Creating and acquiring knowledge from different sources	4.02	4	4	0.702	3
AC2	Sharing knowledge with business partners	3.96	4	4	0.666	3
AC3	Sharing knowledge among members	**4.05**	4	4	0.654	3
AC4	Distributing knowledge throughout the Social Enterprise	3.92	4	4	0.748	4
Conversion						
CV2	Organising knowledge	3.69	4	4	0.808	3
CV3	Replacing out-dated knowledge	3.64	4	4	0.846	4
CV4	Converting knowledge into action plans	**3.78**	4	4	0.795	4
Elements not included in Final KMC-SE Conceptual Model						

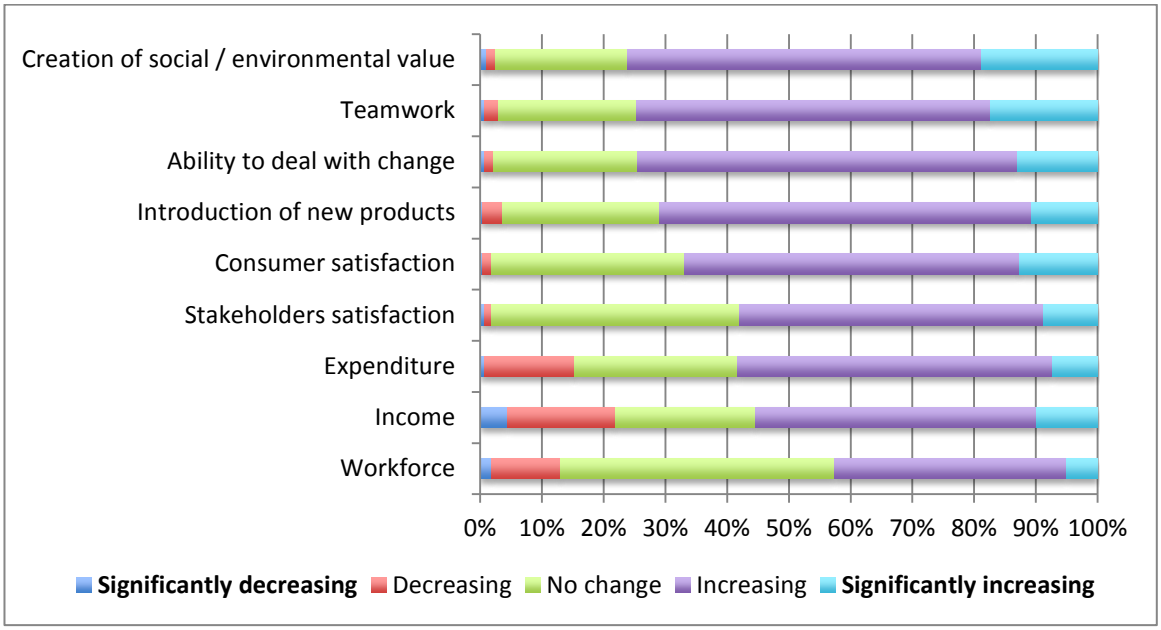
Protection						
PR1	Protecting knowledge from inappropriate or illegal use	3.84	4	4	0.891	4
PR2	Restricting access to information	3.56	4	3	0.893	4
PR3	Communicating the importance of protecting knowledge	3.63	4	4	0.875	4

Figure 18 – Frequency agreement Process Capability

Table 16 – Organisational performance descriptive statistics

ID	Statement	Mean	Median	Mode	Std. Dev.	Range
Return and workforce						
R1	Creation of social / environmental value	**3.91**	4	4	0.742	4
R2	Income	3.39	4	4	1.026	4
R3	Expenditure	3.5	4	4	0.857	4
LI2	Workforce	3.33	3	3	0.81	4
Stakeholder satisfaction						
ST1	Consumer satisfaction	**3.77**	4	4	0.692	4
ST2	Stakeholders satisfaction	3.64	4	4	0.686	4
Internal activities						
IA1	Ability to deal with change	3.85	4	4	0.681	4
IA2	Teamwork	**3.88**	4	4	0.734	4

Figure 19 – Frequency agreement Organisational Performance



7. Chi-square results for contextual dimensions

The results of Chi-square test between the effect of the contextual variables in SE and the measurement variables of the KMC-SE Conceptual Model are presented in the following Tables, indicating only the variables with statistical significant difference among categories.

Table 17 – Chi-square test between Economic climate effect and measurement items

Null Hypothesis	Test	Sig.	Decision
The distribution of L4 is the same across categories of economic climate impact in SE	Independent-Samples Kruskal-Wallis test	.024	Reject the null hypothesis
The distribution of R1 is the same across categories of economic climate impact in SE		.000	
The distribution of R2 is the same across categories of economic climate impact in SE		.000	
The distribution of R3 is the same across categories of economic climate impact in SE		.000	
The distribution of LI2 is the same across categories of economic climate impact in SE		.000	
The distribution of ST1 is the same across categories of economic climate impact in SE		.000	
The distribution of ST2 is the same across categories of economic climate impact in SE		.001	

Table 18 – Chi-square test between Economic climate effect and measurement items

Null Hypothesis	Test	Sig.	Decision
The distribution of IM2 is the same across categories of type of support received from networks	Independent-Samples Kruskal-Wallis test	.046	Reject the null hypothesis
The distribution of AQ1 is the same across categories		.031	

of type of support received from networks			
The distribution of M1 is the same across categories of type of support received from other SEs		.033	

Table 19 – Chi-square test between KM programme in place and measurement items

Null Hypothesis	Test	Sig.	Decision
The distribution of L1 is the same across categories of KM programme in place in SE	Independent-Samples Kruskal-Wallis test	.007	Reject the null hypothesis
The distribution of L4 is the same across categories of KM programme in place in SE		.037	
The distribution of T1 is the same across categories of KM programme in place in SE		.000	
The distribution of T2 is the same across categories of KM programme in place in SE		.011	
The distribution of T3 is the same across categories of KM programme in place in SE		.023	
The distribution of T4 is the same across categories of KM programme in place in SE		.002	
The distribution of PR2 is the same across categories of KM programme in place in SE		.011	
The distribution of PR3 is the same across categories of KM programme in place in SE		.049	
The distribution of AC1 is the same across categories of KM programme in place in SE		.033	
The distribution of AC4 is the same across categories of KM programme in place in SE		.016	
The distribution of CV2 is the same across categories of KM programme in place in SE		.004	
The distribution of CV4 is the same across categories of KM programme in place in SE		.017	

Table 20 – Chi-square test between Age of SE and measurement items

Null Hypothesis	Test	Sig.	Decision
The distribution of A3 is the same across categories of Age of SE	Independent-Samples Kruskal-Wallis test	.028	Reject the null hypothesis
The distribution of AC1 is the same across categories of Age of SE		.008	
The distribution of CV1 is the same across categories of Age of SE		.047	
The distribution of CV2 is the same across categories of Age of SE		.034	
The distribution of CV3 is the same across categories of Age of SE		.031	
The distribution of CV4 is the same across categories of Age of SE		.020	
The distribution of R1 is the same across categories of Age of SE		.005	
The distribution of R2 is the same across categories of Age of SE		.013	
The distribution of LI2 is the same across categories of Age of SE		.020	
The distribution of ST1 is the same across categories of Age of SE		.010	

Table 21 – Chi-square test between Size of SE and measurement items

Null Hypothesis	Test	Sig.	Decision
The distribution of L1 is the same across categories of Size of SE	Independent-Samples Kruskal-Wallis test	.004	Reject the null hypothesis
The distribution of L2 is the same across categories of Size of SE		.000	
The distribution of T1 is the same across categories of Size of SE		.007	
The distribution of T2 is the same across categories of Size of SE		.000	
The distribution of T3 is the same across categories of Size of SE		.001	
The distribution of T4 is the same across categories of Size of SE		.001	
The distribution of R2 is the same across categories of Size of SE		.025	
The distribution of R3 is the same across categories of Size of SE		.044	
The distribution of LI2 is the same across categories of Size of SE		.034	

Appendix H: Qualitative analysis

1. Interview participants and organisational description

Part.	Participant's information			Social Enterprise information			
	Gender	Job title	No. of Emp'ees	Age of SE	Legal structure	Social / Environmental Activity	Economic Activity
SE1	Female	Founder / Managing Director	2	8 years	Sole Trader	• Offer services of philanthropy consulting and mentoring seminars • Develop leading edge research, access to justice for people who do not qualify for legal aid, and advocating for social imagination	• Design and run seminars addressing individual, families and corporate needs • Develop research
SE2	Male	Director of Operations	141	16 years	Private limited by guarantee without share capital	• Social work activities for people without accommodation for the elderly and disabled • Reprocess and reuse furniture and household items and clothing. These are provide free of charge to people who are in desperate need and just cannot afford it • Operate community shops located in areas of depravation so that they can buy affordable goods locally at really low prices. This creates employment opportunities to those in the areas • Supervise the people who have been sentenced to community service orders by the courts • Operate support centres offering debt advice and general counselling, numeracy and literacy skills training and help with job seeking	• Retail sale of carpets, rugs, wall, floor coverings, furniture, lighting, electrical household appliances, newspapers, stationery and similar in specialised stores • Donation receiver • Sell second-hand furniture at little cost to individuals and families • Operate community shops selling second-hand clothing and household items
SE3	Male	Senior Manager	12	28 years	Limited Company	• Provide advice and information to older people to help them find the accommodation and services that meets their needs • Raise awareness amongst other advisory agencies, professionals and policy makers of the importance people attach to information and advice about how and where to live in older age	• Donations and funding receiver • Offer and sell demographic analysis and compare needs to developers of certain retirement scheme • Contracts with government departments to do research about statistics and trends in housing and services
SE4	Male	Managing director	9	16 years	Limited Company	• Not-for-profit financial services	• Financial services

					Credit Union	• Affordable loans • Offer account for prisoners on release • Life and income protection insurance free to members	
SE5	Male	Chief Executive Officer	37	22 years	Limited Company	• Run a community centre and hub that offer space for community groups that support the local community • Run an older people's service named 'day's opportunity' • Run a nursery provision for 1-5 year olds • Offer out-of-school provision for children	• Rent out rooms and conference rooms to corporate people and by statutory and other central organisations • Older people pay for access to different services • Host a café in the centre • Run a nursery and • The majority of the services offered in the centre are paid for
SE6	Female	Chief Executive Officer	12	3 years	Community Benefit Society (BenCom)	• Offer consultancy that provides public engagement services to primarily the public sector and housing associations • Help organisations to engage with communities to explore complex challenges and create actions to improve wellbeing and the organisations' services • Provide advocacy services through an specific commission • Educate and inform the public about healthy life style choices and the effects of excessive consumption	• Funding receiver • Provide community engagement and empowerment services • Offer training in engagement techniques • Offer research services • Advocacy • Deliver empowerment events
SE7	Male	Founder / Managing Director	4	3 years	Community Interest Company (CIC)	• Consultancy ('knowledge support') to not for profit organisations to evaluate the social enterprise model. This is supported with a small funding programme. • One to one business assistance with social enterprises • Run a community technical aid centre which broker complex projects around capital buildings, improve people's management of their buildings, and put them in touch with professional knowledge	• Consultancy

SE8	Female	Founder / Managing Director	2	1 year	Limited Company	• Assist highly skilled professionals who have refugee status in the UK, to enter the employment market	• Offer recruitment and internship agency services to employers, professional bodies and statutory bodies • Run workshops on corporate social responsibility • Management consultancy activities
SE9	Male	Founder / Creative producer / Director	2	7 years	Limited Company	• Create social campaigns about social problems or difficulties that are affecting the community using digital video production, arts, media and participative inclusion techniques. This is done through empowering people who have direct experiences with social issues, giving them voice and an opportunity to create solutions • Offer sustain education and training to young people	• Artistic Creation / Live Theatrical Presentations and Other Artistic and Literary Works • Fund receiver • Create campaigns for government and charities • Sell films, art work and media as learning recourses
SE10	Male	Founder / Chief Executive	36	11 years	Community Interest Company (CIC)	• Provide community-family therapeutic and mental health services to individuals who experience depression, anxiety and low self-esteem	• Fund receiver • Launch of fifteen franchises across the UK
SE11	Female	Managing director	3	6 years	Limited Company	• Offer arts practice using digital storytelling methodology in action, enabling communities to have a voice and be able to share their experiences. • Develop individuals by teaching people in these communities some skills, such as, using computers and script writing, helping them to build their confidence, and improving health and wellbeing through tools for self-expression.	• Grand receiver • Design and run of customised workshops
SE12	Male	Managing director	6	4 years	Community Interest Company (CIC)	• Provide work experience and 'back to work' vocational training within the organisation for ex-offenders, drug and alcohol recoveries and homeless people • Supply a number of charities with heavily discounted furniture • Run an employment agency dedicated to the people who have been on the courses	• Wholesale of Household Goods • Offer logistics and warehousing solutions to retailers and global furniture manufacturers, including home delivery • Source and sale of affordable home and office furniture to organisations and individuals
SE13	Female	Chief Officer	14	1 year	Limited Company	• Run a home improvement agency for older and	• Building and construction installation

						disabled clients and their carers. This helps them to stay within their own homes and then help them with things like adaptations, repairs and maintenance	• Use a tradesmen to do small works within anybody's homes
SE14	Male	Founder / Managing Director	2	1 year	Community Interest Company (CIC)	• Offer business services around social enterprises such as, advice and support on visioning, strategy, governance and legal structures, help to find the finance and funding in order to achieve these ideas, business planning, legislation investment, and improve the impact of their work	• Management Consultancy Activities
SE15	Male	Chief Executive Officer	41	26 years	Friendly Society	• Provide construction services, housing, employment and training opportunities for local young people • Support young homeless people into work by offering services such as confidence building, and providing information regarding moving towards employment such as creating a CV, interview techniques and application form support	• Fund receiver • Deliver quality construction, building maintenance, painting and decorating services at a competitive rate • Contractual delivery • Provide office accommodation in their property • Buy empty properties and renovating them
SE16	Male	Executive Manager	4	13 years	Community Benefit Society (BenCom)	• Design and provide activities based around creating jobs, creating employment and making people more employable. • Support groups of people who are looking to create enterprises, community businesses, specifically as co-operatives of various types	• Consultancy
SE17	Female	Finance Director	10	37 years	Limited Company Co-operative	• Publish books that increase awareness of important international issues and promote diversity, alternative voices and progressive social change	• Academic publisher
SE18	Female	General Manager	1	1 - 2 years	Community Interest Company (CIC)	• Deliver new and innovative ways of hospital-based services closer to the patient's home • Managing a whole care service in the area	• Healthcare services
SE19	Male	Founder / Managing Director	6	3 - 4 years	Limited Company	• Employ staff that might have a criminal conviction in the past, been involved in working with the adult sex industry in the past, or come from long term young unemployment	• Health wellbeing services centre for men • Funded receiver • Contracts with government on sexual health

						• Offer free services and events to the local community	• Consultancy work on health job evaluation work
SE20	Female	Chief Executive	4	4 years	Limited Company	• Run homeless hostels • Provide training in the community sector and capacity building to disadvantaged and marginalised people in the region, such as, job club, courses for vulnerable young parents and single young parents • Free legal advice to people • Providing support, advice, information and access to Information and Communication Technology to individuals, social enterprises and more conventional local businesses	• Fund receiver • Room hire • Table and chair hire • Cafe • Businesses and marketing advice
SE21	Female	Founder director	3	1 - 2 years	Limited Company	• Design and develop accessible, relevant and practical entrepreneurship projects that enable individuals to use their skills and potential to start businesses and social enterprises, and then build sustainable futures • Provide microcredit loans and business support to women to start and develop small businesses	• Design and offer workshops tailored to the needs of organisation and businesses attending • Provide training and consultancy in social enterprise and entrepreneurship to individuals and organisations

2. Social Enterprise Sector

During the interviews, participants found opportunities to reflect on what social enterprises are and how they are different from other organisations. Here are some definitions of SEs given by participants:

- Emphasising two sides of the SEs:

> *'You have to sort of understand, first of all that, in a way, a Social Enterprise, whether it is [our SE] or another one, there is two businesses in one. It's a social business, which is delivering social change and impact and things, and there is the commercial business which attracts revenue ……. [Our SE] is an attempt to create a new model for social enterprises. One that doesn't rely on funding or grants but genuinely earns its own revenue from private industry, and then uses that income to support significant social impact programmes.' (SE12)*

> *'… one is the social programme, are we making a difference and, therefore, are we benefitting the community. And two, on the enterprise side, it is more a case of are we conducting business. I'm a bit outspoken in some ways. I think if a social enterprise is conducting business on behalf of the community, then it has to question how much grant and funding it relies on.' (SE12)*

> *'Because SE is everything that is very meaningful for us, laid the market down, because it is about business. So [our SE] is about recruitment, it is about business, but is also about ethics, It is about good business and I think, if you look companies like Richard Branson, ethics with business makes more money, it is much more sustainable.' (SE8)*

- Emphasising the social side:

> *'When you set up a SE, a SE comes from a need, working with a need within the community, something that is not there, something that is not being done well, something that is a new idea, something that can enhance community experience.' (SE9)*

> *'… we are not a charity, and I actually don't like the phrase social enterprise, I would prefer it to be called social business, because I do have to generate some profit, because I need to employ, I need to reinvest in the organisation, we've got not shareholders, so any profit that I do make goes back into the organisation.' (SE18)*

> *' ... doing business for the benefit of, or on behalf of a community…' (SE12)*

> *'… it is about motivation to change society and leave a mark on the world. I wanted to do something that was new and different and made a difference to the world ..' (SE12)*

- Emphasising the economic side:

> *'It's about business, you've got to trade, you need to get money, if you don't make money and the grant funding stuff isn't there anymore, you don't make money, then it will close. You've got to make money and if that means that making money too, so be it, you may be able to provide these services to people in need, then that's good, but you need to get money. So the commercial element I think, isn't something that we should dismiss, you have to link into that.' (SE19)*

> *'I think Social Enterprises is a concept that we will develop because the nature of funding for charities and for the third sector generally has changed dramatically, and*

charities and third sector organisations are working towards self-sustainability and the easiest way to be sustainable is to have a profitable long term business plan that allows them to generate their own income. So I can't see any way that you can do that without Social Enterprises and that's the key part of their role.' (SE2)

- Emphasising the difference with other sectors:

'… the Social Enterprise was an evidence-knowledge gathering vehicle, as well as a service vehicle. And I don't see them as charity based, like the churches opportunity shop or the sports' field canteen. I see them as having huge impact positively for community issues, doing business for doing good'. (SE1)

'I think because it is different from what is driven making business and, it's kind of part in the third sector, social enterprises happen but it's really something on its own. I think sometimes it is presented as the answer to the wrong problems.' (SE9)

'… the unique selling point of the social enterprise is that you pay the other contractors, and when it comes to year-end then, the profits would come back to the charity and the charity mostly uses those profits to develop new services for older people. It's quite a nice circle.' (SE13)

'Kind of feel that they [people who work for SE] are more mission driven.... It's more like we are working more for a common cause. It's not as competitive as corporate environment. I think it's not as, I know this is like a damning thing to say and it's changing over time but it's a bit sharper than the third sector, or the old school third sector. So people are a little bit sharper …. But I think it's probably the younger environment, it's a younger sector, people are younger. ... So maybe they are little bit less slack in Social Enterprises. I worked for lots of volunteer organisations and charities organisations, and things are not done as sharply as they are, could be. I suppose not as business-like. As a social enterprise it's a little bit more business-like.' (SE21)

'… [our SE] is not about 'Please help us', which is the charity model. It's not that at all. It's about this can work better for you in the market that as a business, as a recruitment business, [our SE] can provide employers with staff, when they are short of staff…' (SE8)

Other participants preferred to differentiate SEs for their peculiar characteristic as a sector, as SE14 and SE21 explained:

'We social enterprises, it's quite a new business still, so we're getting together to discuss that and talk about it politically, economically, socially…. I have been in connection with [other non SEs networks] and I believe it is a cold, hard, financial thing, which is how I got in business. For me, I think I prefer the sense of a shared family of Social enterprise in the city, kind of make a difference. Something like that, coming together and talk about that.'(SE14)

'It's a good thing about social enterprises, that people are happy to share, are happy to encourage each other, and share good practice…. They [social entrepreneurs] are better and sharing, just verbally sharing information, sharing good practice, we are good at that. We work definitely more sharing with each other, it's like 'oh here it's a tool I use, you can use it'.' (SE21)

However, these unique characteristics of SEs have resulted in some type of isolation perceived by SEs from other sectors. As SE9 and SE18 explained:

'I just felt like sometimes, were there any other organisations that work with people as we do and do things in the same way that we do, so you're walking about and you're thinking 'I've got nobody to bounce this idea off and I don't know who to ask these

questions to'. And that's quite a scary thought, particularly when you've got people who don't have the same aspirations, threatened by what we were achieving, basically the people from the local authority, whose job was to do the things that we were doing, but did not have not the capacity or concept of what we actually trying to achieve. It was quite scary for them, and I think in that sense they felt threatened, and took the chance to make it for us difficult.' (SE9)

'The interesting thing for me has been that this has been a way of really testing to see how far an independent provider of care could actually test the market and drive things forward. Because, although the white papers (said) different models of provider would be supported, it's actually been interesting, because it actually being very difficult to get to this point, because there's nobody done what we have done before. So there is no case-law, there is no test case, and everything that we have done, we seem to have come up against a barrier; but we are able to erode that barrier and move forward.' (SE18)

Although each participant seemed to have a clear idea why they were a SE, and what their main characteristics were, participant SE12 suggested that a more clear definition is required in order to maximise the impact of the sector. As he explained it:

'With social enterprise, there is yet to be a proper robust definition of it in the market, there are hundreds of hundreds of different versions of what social enterprises could be, normally use about 50,000 words. But there is not a ten word explanation of what a social enterprise is.'

The discussion about definitions was also framed in the role of Social Enterprise Mark, which is the international certification for social enterprises. As participant SE5 mentioned:

'… we have the Social Enterprise mark, and for us that means we run very much in business principles. So a lot of our services are actually paid for …… [we] just started to explore what value the Social Enterprise Mark has as a certificate, because a lot of organisations call themselves social enterprises and it is not a legal definition. It is more a philosophy. So, unless you have the Mark, that doesn't tell you how you are a Social Enterprise, so it is a major weakness at the moment in terms of the way how 'social enterprise' is used almost as a legal entity, which it is not.' (SE5)

Lastly, in order to stress all the characteristics and peculiarities of SEs, participant SE12, who works with ex-convicts and ex-addicted people, described with an example how his organisation is a SE and how it differs from other enterprises:

'As a business we have to be competitive in our cost even, in our quality, in our delivery, to be considered to be used by the bigger organisation supermarkets or certain multiple stores. But, at the same time, within the social picture of [our SE], when you have people who are trying to get put back life structure back into their lives, retrain for work, maybe they've been out of work for two years, you have to have a slightly different approach to business.

For example, if somebody starts an all-week course and they are late every morning, in a business they would get dismissed. We have to make allowances and understand how difficult it actually is to get them through to the fourth week when they are all on time every day. So they are vocationally trained and everything is moved along to develop them as a person.

Now, that's the difference, a business doesn't do that. A normal business doesn't choose to do that early stage development. They may well want somebody who is in there,

have a longer development plan to take them to different level of life. Ours is about getting people work ready, not about taking them on to be from a warehouse assistant to be a warehouse manager. That's for the next generation that employs them.'

3. Organisational structure of 21 participants

Part.	First level of decision	Second level of decision	Third level of decision
SE1	Managing Director	Members	None
SE2	National **board** of trustees	CEO	Locality manager
SE3	**'Board** of Trustees'	CEO	Directors
SE4	Chief Executive	Manager	Supervisors
SE5	'**Board** of Trustees'	Chief Executive Officer	Managers
SE6	**Board**	Chief Executive	Members
SE7	Directors	None	None
SE8	Directors supported by an 'advisory network'	None	None
SE9	'Professional **board**' and the 'youth board'	Directors	None
SE10	'**Board** of service users'	Chief Executive	Managing Directors
SE11	'Volunteer **board** of directors'	Managing Director	Members
SE12	Directors	Managers	Members
SE13	'**Board** of directors'	Operations manager	Members
SE14	Managing director	Members	None
SE15	Board of trustees	CEO	Co-ordinator/Supervisor/ Manager
SE16	Board of Trustees	CEO	Executive Manager
SE17	'Elected **board** of directors'	Members	None
SE18	'**Board** of directors'	General manager	None
SE19	Managing Director	Office manager	Members
SE20	'**Board** of directors'	Chief Executive	Members
SE21	**Board** of trustees	Founder Director	Members

4. Knowledge activities in SEs

Table 1 - Types of tacit knowledge and knowledge activities

Information / knowledge	Part	ACQUISITION How is this information/knowledge acquired?	CONVERSION How is this information/knowledge converted within the SE?	APPLICATION How is this information/knowledge applied within the SE?	PROTECTION How is this information/knowledge protected?
Organisational knowledge (reputation, expertise, experiences	SE3	*'… **locating people** so that they hear too what other people do and try to start talk about and help each other, so everybody knows what everybody does.'*			
	SE6	Having a team **meeting** that is focused on a particular topic that might be one member of staff's expertise and *'not everyone is aware of'*.			
	SE8	Discuss Organisational problems *'messy topics'* with an advisory network meeting, summarising experiences	Meetings are minuted; Minutes are publicly shared on the website; and Allow the SE to '*come up*' with an action plan.		
	SE9	**Meeting** and getting support and advise from a professional board			
		Talking to another member of the SE about *'… how different sectors relate, strategic planning, piloting stuff, how to make a project happen, how to visualise the project, how to arrange, sequence, schedule, and the understanding of a project.'*			
	SE10	Having staff team **meeting**, executive meetings and board meetings	Meetings are minuted, sometimes recorded and available to all members; and Action plans are arranged	Allow the SE to cascade down *'certain kind of knowledge that individuals might have, like myself'*	Insurance policy if key people of the SE die, covering the financial damage of losing their information and knowledge
	SE11	Bringing young people into the organisation and **telling** them 'our knowledge'		Nurture some new people in, so '*…the organisation has a life on its own and shouldn't rely on me, or anybody else for that matter'*	
	SE13	Having staff **meetings**	Meetings are minuted and actioned (but not stored)	Allows the SE to *'…keep everything going' and 'learn from mistakes…'* *'We talk about something and then someone will say that happened three years ago and you can do it this way or we tried that before and it didn't work.'*	

	SE14	**Talking** to other member frequently and share information about networking contacts and critical understanding of local politics			
	SE15	**Talking** to younger people in the organisation and share how '*we manage the organisation, how we set strategic plans, where we are going.'*; and Training this people in management and leadership skills		*'Keeping the organisation pointing in the right direction and moving forward'*	
		Get all project leaders to **discuss** and integrate issues, looking at commonality in terms of housing, case studies, discussing cases and looking at options		Allow the SE to *'…step back and reflect on what you've been doing, what you are trying to achieve and where you're going.'*	
	SE16	*'Lots of team meetings, lots of sharing of ideas, lots of sharing information between staff and volunteers'*	*'Where ever possible we try to get it [knowledge] out of their heads and either onto paper or onto electronic documents'*		
	SE17	Keep for each person the job description, role profile, what are the key responsibilities, what are the key targets, how the person manage his success, what are the skills needed, and the experience needed to do the job	Store in database	Allow members to '*fill in for people'*	
		When people leave, **debriefing** them, recording them, asking them to write handover notes about their jobs, and try to have overlapping with the new person to taking them through	Enter and store any information on database	Allow the SE to avoid '*hiatus*' and lose in productivity when a person leaves	
		Having a basic **training in each other's job**			
	SE19	**Recruit** new people that can be taken on board and slowly beginning to train up, in case someone may leave the SE		Allow the SE to avoid '*hiatus*' and lose in productivity when a person leaves	
	SE20	Having staff **meetings**		Allows SE to work better by talking about people's challenges and sharing that understanding	
People / community needs (histories)	SE2	**Visiting and talking** to people in their homes		Identify the local needs and define projects base on this	
	SE5	**Siting and having conversations** with people from the community	Trying to understand and mapping out where the gaps are in the needs of the community '*we are serving'*	Support the organisation in terms of planning strategic development of the community	
		Meeting with a Community Partnership that: *'… has lots of different people groups, from charity, commercial and voluntary sectors, community groups and individuals coming to meet at the partnership and issues are discussed, so that collective knowledge can come up in that kind of forum.'*			

	SE10	**Asking** people in the community what services they need	Using and analysing it with '*community participatory research*'; and Integrate with other sources of information and produce studies, research and publications.	Inform commissioners and get contracts for that	
	SE18	**Talking** to people in the community by going and sponsoring coffee mornings, working with the local Rotary Club and being involved with fairs in the village		Allows the SE to establish very close relationships with the local community and being able to identify what is really needed.	
	SE21	Cultural understanding gathered by working with members in Africa	Allows the SE to understand the language used by members when writing the reports and *'sometimes it does take a little bit of deciphering'*		
Other SEs experiences	SE4	**Visiting** other credit unions through Yorkshire Forum of Credit Unions		Allow the SE to learn from other SEs and to *'pick their brains'* about accounting process, preparing management accounts	
	SE15	**Visiting** other organisations to see how they operate		Identify models of good practice	
	SE15	**Getting involved** in a local partnership working with small scale similar organisation			
	SE18	**Meeting** other SE that has worked in similar projects, through a SE network			
	SE20	**Communicating** constantly with other local SEs and charities		Permit the SE to prevent duplication and ensure targeting the right people. Share good practices and get support from other SEs.	

Table 2 - Types of explicit knowledge and knowledge activities

Information / knowledge	Format	Part	ACQUISITION How is this information/knowledge acquired?	CONVERSION How is this information/knowledge converted within the SE?	APPLICATION How is this information/knowledge applied within the SE?	PROTECTION How is this information/knowledge protected?
Customer / clients information	Electronic/Paper	SE1	Digitalise all paper information from customers (scan) and enter on database	Store in databases; Seal to preserve paper copies; Back up in server; Allow to search the information by key words; Produce research and conference papers; and Produce research for policy and corporate philanthropy impact		
	Electronic	SE2	Capture (scan) using EPOS **system** (Electronic Point of Sale) every time a customer buys a product	**Store** on EPOS system; Inform stock allocation	Inform the SE of which other services could be developed, and other groups for providing those services; Inform the SE to make *'educated business decisions'* in terms of how to expand and where to expand; Allow the allocation of new products in relation to how it is sold and how it has been demanded in the past; Allow the SE to comply to charitable law criteria by demonstrating they are providing charitable support; and This information is integrated with feasibility studies to develop new services in new areas.	
		SE3	Capture by a help-line service on telephone or email; and Enter in database.	Store in database Analysis of people *'…who come to us, what they ask, and what they need.'*	Inform research and provide material for people who want to do research.	
	Paper	SE3	Surveying residents of retirement housing using a card game where: *'… they have to sit around the table and discuss things and then agree on a score …. There is a group score sheet but also an individual score sheet. Each individual can also ask questions.'*	Integrate in an annual report named *'national housing folder'*	Inform the SE of quality of life and well-being in shelter housing	
	Electronic	SE4	Enter on computer system	Store in computer system		
	Paper /	SE4	Volunteers gathering the information in the local	Store in computer system; and		

	Verbal		community and assuring the references are right; and Information given as package to SE and then enter into computer system.	Create bill payment accounts.		
	Electronic	SE5	Entering information on Excel spread-sheets	Allows to measure diversity of people *'who come through by qualities monitoring'* using *'fiscal key performance indicators'*		
		SE6	Apprentice enter the information about contact names into a database	**Store** on database		
		SE8	Users complete an **application form**, attend a workshop and do the PDP (Personal Development Programme) and an assessment; and Enter and keep in spread-sheets and online **database**.	**Store** on online database and computer organised on folders colour-coded; Back-up on DropBox and hard drive; Produce statistics and annual **report** of *'… what makes difference and what doesn't' to 'let people know about the work we do.'*; and Allow the SE to **keep track** of the required information and ask users for any missing data.	Inform the KPI that track objectives; Inform the SE to *'make decisions about what to do with them'*; and Information use for lobbing and marketing.	Database encrypted every six days; and Data protection policy for service users information, thus is never shared with external people.
		SE8	Using SurveyMonkey to collect candidates' opinions, feedback and information	Prepare a report that was shared freely to another organisation	Allow the SE to use the information for lobbying	
	Electronic/Paper	SE10	Recording information from anybody using *'our services'* in a system called *'Free hand'*. The system records basic information about that individual, who they are, where they live, records all the kind of contacts that '*we have with that person, whether it is by telephone, whether it is face to face',* and records specific information used by each department	Store in system 'Free hand'; System back-up daily; Reports to different contactors and authorities; and Integrate with other sources of information and produce studies, research and publications	Provides information that actually helps clients to get the support they need and to help them with a particular issue that SE is supporting them with	Passwords; Information kept under Data Protection Act; Protocol in place for permission to access to client's data; Some information can only be access by employees of the SE with permission from the client or by local authorities; and All members of SE have CRB checked.
	Electronic	SE10	Record on system clients' social and financial position when starting with SE and when they finish the service	Store on system; and Produce an annual report	Allow the SE to **measure social impact** of interventions	
		SE10	Develop a franchise model to capture SE intellectual property	Build a manual explaining how they are doing and recording things that can be replicated	Allow the SE to '*capitalise the intellectual capital'.*	Protect the trademark

	Electronic/Paper	SE11	Scan clients' copyright permission	Keep in a database; Inform the organisation if it can show publicly individuals' stories.		
	Electronic/Paper/ Media formal (DVD)	SE11	Clients' stories recorded by SE Getting people to fill forms with *'… smiley face type measurements, trying to capture at the beginning how people are feeling about themselves, and then trying to capture information at the end.'*	Store on system	Information allow the **measurement of value** and outcomes of the SE	
	Electronic/Paper	SE13	Doing surveys of customer satisfaction (to 5 to 10% of customers); and Enter surveys on database Scan job sheet signed by each client saying they are happy with the work that it is being completed.	Store on databases; and Report to funding partners, Housing Department and authority, and Social Services.	Provide evidence of the work that has been done by the SE, informing how much the SE has done to provide adaptations and repair on homes and present the faults; Evaluate customer satisfaction and know what else they need; and Positive feedback is sent back to team '*showing how brilliant they are'* and negative feedback is used to change and improve the service in the future.	
	Electronic	SE14	Using SurveyMonkey to collect clients' evaluation of *'…the work I've done and the impact that we have had on them.'*	Produce a social impact **report** including up successes and areas for improvement to share with clients as promotional and marketing material, and with the CIC regulator		
		SE15	Capturing information about the 'Distance travel by our clients' with interviews and questionnaires *'If they're coming with a drugs problem how we actually got them off drugs, if they are coming with a budget problem, how we help them to improve those budgeting skills'*		Allow the SE to measure *'… how far/distance travelled by our clients.'; and* Identify how to tack the longer term issues.	
		SE16	Capture community and co-operative information using an online forum, *'… which is an interactive platform for community and co-operative people from anywhere in the world'*			
	Electronic /Paper	SE18	Doing regular evaluations of the service with patients	When there are 100 questionnaires, the information is sent to a R&D department of a partner to evaluate; Report for continue evaluation of service to board of directors; and Report to CQC.		
	Electronic/ Paper	SE19	Patient clinical information and results are entered in an online database, as well as the date when it	Keep in online database; and Allows the SE to track quickly		

			was sent a text with their results	where things are		
	Electronic/ Paper / Verbal	SE20	Interviewing people when they go to the SE for services; Ask people to fill questionnaires; and Enter and keep in central database.	Store in database; Develop case studies; and Inform the community through newsletters or AGM.	Inform the SE of '*… what we are doing is having an **impact i**n our area, on people in our area.'*	
Organisational / Operational information of the SE	Electronic /Paper	SE2	Share in internal magazine and email updates with all members			
	Electronic /Paper / Verbal	SE6	Project information in shared folders; Having regular team meetings to share and to have conversations about particular issues; and Having 'huddles' (small groups) on a particular issue that members want some support with.	Store in shared server; Files organise by headings that everybody shares *'… things like communications or policy and research .. rather than organising by the name of members of the team.'*; and Use a paper system for those projects, with a list of contents at the start of each of those paper folders, which list all the documents that should be kept there.		
	Electronic / Verbal	SE6	Enter policy and research information on the database '*Policy Hub'*	Store in database; and Use as *'reference guide where people could find that information again'*		
		SE7	Share information of the SE using DropBox; and Having meetings with other directors physically or using Skype.	Information store in DropBox		
		SE9	Enter and keep on laptop (spread-sheets) number of hours and names of people involved in projects, financial records)	Store in a laptop	Allow the organisation to measure impact; and Show to participants that they finish a project *'it's really empowering for them*'.	
		SE10	Share on system and network; and Share on a library of information.	Store on systems; System back-up daily; and Integrate in the system to produce report for different finance and contracts.		Passwords and security clearance to some information
		SE11	Share using a central server, cloud solution, email and shared diaries internally and with free-lances *'If we are out doing project work, this is where the Google docs and calendar, becomes really handy because you just have to be part of a network. You are an extended information pool as well.'*			Protection is done by permission bases *'If we employ a more junior member, they couldn't have information about wages and finance information and such like.'*

		SE12	Enter and keep in databases	Store in databases; and Information not reported because the SE does not need to.		
		SE13	Enter information about number of jobs completed and type of jobs on database	Store on database	Allow the SE to do stock management and negotiate prices with suppliers.	
		SE13	Share in a staff folder in the server information about policies, procedures, board reports and *'any bits of information that comes through that the staff may be interested to look at'*			
		SE14	Share and keep in laptop and Dropbox information about finance, policies and strategies of other organisations, research reports, tender applications, quotes of new work, Memorandum and Articles, Council documents, articles written. Enter in spread-sheets	Store on laptop, DropBox and cloud solutions; and Information back up automatically using Carbonite (online backup system) Information helps '*to run the business*'.		
		SE14	Getting information directly from clients (including commercial sensitive information); and Using SurveyMonkey to collect clients' stakeholder information for consultation work.	Design consultancy projects		
		SE17	Enter and keep financial, accounts, editorial and marketing information in centralised database and supplemented with spread-sheets, pdf and Word documents	Store in centralised database; and Allows the SE to follow the life cycle of a title from conception to its eventual death.		
		SE17	Enter and keep sales information in centralised database	Store in centralised database; and Inform the SE if the book is meeting its target, how quickly they are selling, what is the margin on the book.	Inform and help editors, if they are assessing similar books, in making decision based on how did that do, where did it sell, how many copies. And then to evaluate how to improve the forecasting.	
		SE18	Enter and keep in computers. Share and update in primary and secondary care organisation newsletters.	Store in computers		
		SE19	Capture orders that come from GP practice on Chlamydia screening in a system	System document the order, then send it to one member of the team to make up the order, then gets despatched and then get confirmation that it was delivered in the right place.		
		SE19	Use a shared file (drive) online for members to access information about policies and procedures documents, and business and marketing plan	Store online; and Document *'where we're going, the direction of our travel'*.		
		SE19	Update stuff and sharing things from the news on			

			Facebook and Twitter with '*followers*'			
		SE20	Enter, keep and share on computer and central database	Store on database		
		SE21	Enter and keep projects images, postcards, films and reasons for those projects in computer	Store in computer; Publish on website; and Produce report that is sent to people involved in the projects and stakeholders in Africa to build relationships, inclusiveness and share responsible with them.	Measure and report '*impact of the work we do*'; and Marketing *'Be there for people who are potential funders, potential corporate sponsors, and new clients.'*	
		SE21	Design a report format; Enter information in report format by members in Africa and send by post to UK or scan and send by email; and Enter in Excel 'spread-sheets'	Store in computer	Allow the SE to improve communication and organisation of information *'… cementing our relationship and knowledge of the project'.*	
		SE21	Create manual indicating the forms and processes needed to set up a project	*'I don't have to think about it when I'm there'*		
		SE21	Train African members on where the funding comes from, including filling a funding application form	Allow the SE to connect members with '*the big picture'* so they understand where the money comes from		
Sectorial information	Electronic / Verbal	SE2	Getting information about latest legislation, latest legal requirements, and any changes on policy on procedures going forward, from associations and networks (through events and newsletter)		Allow the SE to *'… prepare to act properly going forward…'.*	
		SE5	Getting information of health and social care sector from newsletters and attending events of Health and Social Care network	Provide the SE with updates or changes within the sector		
		SE10	Getting newsletters from networks and associations with information about funding, contracts, new policies and new thinking in SE sector		Allow the SE to '*survive'* by *'being very aware of new kinds of funding, commissioning'; and* Allow the SE to adapt and update the business plan *'hot off the press'.*	
		SE13	Attending meetings, training and networking events organised by networks and associations	Inform the SE of *'… what else is out there and knowing what other community businesses are available for us to tap into.'*	Allows the SE to present and share its work to other SEs.	
		SE14	Attending meetings and networking events organised by Plymouth SE network			
		SE16	Attending meetings, training and networking events organised by Co-Operative UK and get legal, membership and governance advice	Allow the organisation to *'keep ourselves up to date with developments within that area';*		

				and Networking opportunities.		
		SE17	Getting information from Independent Publishers Guild and trade fairs about latest trends in the business and sharing enterprise experiences	Allow the SE to keep update in the industry trends, new developments, do benchmark with other enterprise; and Networking		
		SE19	Getting information about funding and legal advice from newsletters and attending events of associations and networks	Inform the organisation of what is going on in the SE sector, what and how access funding for new development		
		SE20	Attending meetings, training and networking events organised by networks and associations (SE Coalition)	Inform the SE of *'what is going on and what funding is available'*		

5. Difficulties in managing knowledge in SEs

Knowledge area	Main difficulty	Participant' comments
Managing tacit knowledge (10)	Knowledge is in people's head **(5)**	*'A lot of it [knowledge, information] is locked up in our directors' head'.* (SE7)
		'There's a lot of data in people's heads that we haven't extracted yet, so we've got lots of stories of how we worked with people and what's gone on in the past, but we don't take enough time to sit down and reflect on all those issues …… If some time you come in on a Monday morning and, obviously we have a few examples of chaos, and that tends to absorb our minds a lot, as opposed to sitting back and thinking on 'are we just dealing with the symptoms of a wider problem here?'' (SE15)
		'I have gathered an immense amount of knowledge because the journey to this point, which has probably taken two years to get to this point, has been very problematic, and we've gone off in lots of different directions. So it's very difficult to capture that really, but I do have reporting mechanisms. I have to report not only to our board, but I have to report it to the board of the primary care organisation and also into the board of the secondary care organisation. So there is a mechanism in there for communication, but it would never capture what I've got going on in my head, I think.' (SE18)
		'The history is in my head, if you like. We have lots of meetings where we talk about something and then someone will say that happened three years ago and you can do it this way or we tried that before and it didn't work. None of that is really recorded yet; it's all about people and personalities, I suppose.' (SE13)
		'Because I've been here a long time and there is lot of information in my head, and thinking how can I extract this and write it down; I found it quite challenging to get the right balance. You don't want to leave your successor an incredibly detailed thing that constrains them, so they don't have space to develop the job in their own way; you want to leave them enough information so they are equipped to doing their way. I find that I quite thing really. You don't want to write an encyclopaedia and leave it, that would be very intimidating and to a certain extent, when you come into a new job, you have to find out for yourself because that's how you learn. So it's getting that balance.' (SE17)
	'I don't know what I know' **(1)**	*'To be able to pass that knowledge on I would have to contextualise it and focus on being able to teach someone else, and that means knowing what I know, and I don't really know what I know. And that's a challenge I suppose.'* (SE9)
	Lack of mechanism to capture people's experiences **(1)**	*'We have got to where we are now largely through the hard work of a few very committed people. But we need some systems and processes in place so that that hard work is maintained as those people's commitment wains, or as they grow older and their commitment of the work is not what it was early on. So we need to put process and procedures in place so we run the organisation properly.'* (SE2)
	Culture differences **(1)**	*'Because it's quite hard to explain it unless you are out there and you see what is going on and you understand …. They are completely different cultures. People are not use to putting files together or organising staff or recording information or…., people work in a different way.' (SE21)*
	Lost of tacit knowledge **(1)**	*'You always find when an editor leaves, there is always a hiatus, the productivity goes down and it takes a while to get it up again. Because so much of it is personal contacts and the chemistry between the editor and the authors and it's going to take time for the new person to build that personal relationship and trust.' (SE17)*
	Knowledge in collective consciousness and not centralise **(1)**	*'These things [procedures and policies] tend to be in different places; It is in the collective consciousness, they are not in one central place … you don't want to be too bureaucratic and heavy handed and spend all your time writing down rules but at the same time you want enough information that enables the company to carry on.' (SE17)*
Managing explicit knowledge (4)	Lack of technology support **(3)**	*'We don't have the databases, they are more sort of on an Excel spread sheet. So the systems and processes for gathering data, for collecting data, and processing the data, that is something that needs to be made much more robust ….. making sure that we know who we should be talking to, what we should be promoting to, on an on-going basis.' (SE5)*
		'We do need those phone systems, so most people can see what is being said and what approaches are being made to different individuals, groups or organisations.' (SE5)
		'We don't really have a customer relationship management system at all. So there is a danger that we could be three of us and we could be trying to pursue the same individual about three different things and none of us be aware. But in such a small organisation it is difficult to justify implementing an elaborate system whereby every conversation or email gets recorded. … We are less good at keeping up to date a record of who we talk to, or even keeping our contact database up to date. That feels like an endless task.' (SE6)
	Lack of marketing strategies **(1)**	*'We are not very good at marketing and we should use that information that is available to perhaps target particular members for particular products but because historically we have wanted to celebrate the difference between banks and credit unions, we wanted specifically not to sell things to people because*

		that's what people do in banks and we don't want to be like that. But as time progresses I think we realise that if we are going to became sustainable and if we are going to grow we have to selectively target our members with certain products and services. And we have to approach things in a more business-like way, and ensure that everything that we are doing has an impact on our income and expenditure. So we need to look at new products and services that are going to give us income rather than because is the right thing to do.' (SE4)
Managing people (5)	Lack of motivation to share /access knowledge **(2)**	*'The problem is having staff encouraged to go in there [shared server] and look at it. We try to give them time and say have a look, talk to us about it if you want to know. We try and back it up as well. It's just the report of some information in there. It's really interesting in that it might actually help someone with their jobs, and help them to understand what they are doing. Then we reinforce it in the team meeting. They can take copies of that information as well and talk through that. So it's not just on the machine then, it's actually in front of the people.' (SE13)*
		'That [Policy Hub] hasn't been very successful because I think you can't get round the fact that people just want an answer. They can't necessarily be bothered to go and look for it. So, they just ask the person who compiles the policy hub where something is. So that's not ideal.' (SE6)
	People do not feel common ownership of SE knowledge **(1)**	*'Because people are expert in different areas in terms of what is on our service. People, I think, are still bit nervous to go get poking in a folder that they are not really familiar with. I think people don't quite feel that everything there it is in common ownership. So, it's not perfect yet. There is probably quite a lot of duplication between different folders because people call things different things and store it in different places.' (SE6)*
	People underestimate the value of managing knowledge **(2)**	*'I think the paper folder and how we keep our project files is work in progress because people are still adjusting to being a consultancy rather than more like a campaigns organisation. And I think actually the value of the system won't be realised until we really have to check it. So you know, if something goes wrong or if we lose something, I think then perhaps people will be more aware of why keeping everything centrally is important.' (SE6)*
		Some [project leaders] are, some just think it is a waste of time [share experiences with other]. It's just their views on … because for instance, some of the project leaders are hands-on people, they like to do, they like to get their hands dirty, they don't see management of data and the gathering of knowledge as that important.' (SE15)
Gathering external knowledge (2)	No interest to share information with SE **(1)**	*'A lot of our time is taken trying to get that information because people are not paid to give it to us, so they don't always see the benefits. We know because the data help people make decisions and knowing what the options are, but each provider doesn't necessarily have the same interest.' (SE3)*
	Incompatibility of systems **(1)**	*'Particularly on the UK distributor, we used a lot of their information. And inevitably you get sort of incompatibilities between databases, they have their way of doing things and we have ours. So things are not always synchronised. So it's not a completely integrated data field.' (SE17)*

6. External support

	Value / support	Part.
SE network		
SE network Wales (Wales Co-operative centre)	Showcase different SEs Larger events Information back and forth Training programmes free or at low cost	SE13
Wales Council for Voluntary Action (WCVA)	Training	SE11
	Training on community development and management of SEs	SE20
Local SE network (Llanhileth Gwent)	Networking with other SEs *'Communicate what we do'* Conferences Places where to set up a store and *'get to market ourselves'*	SE11
LAC SE network	*'Put our name out there and that make us sort of known in the local community'* *'Relational marketing'*	SE7
SE London	Regular newsletters/ events 'Lots of information about events and funding schemes' '*We get a link to what is going on in the SE side*'	SE19
Plymouth SE network	Sharing information / camaraderie Networking	SE14

	Events / meetings / activities Other members offers / discounts To promote our work Platform for information and news Workshops on business issues	
SE UK	Received information Not active participation or involved	SE14
	Information (email)	SE10
Guardian SE network	Received information Not active participation or involved	SE14
York SE network	Talking chat *'I think their ideas are skill quite early'*	SE9
RSA SE network	Learning opportunity *'… the way they talk, they ask questions that I don't hear anywhere else…'* *'I feel part of something, and that give us confidence, I don't feel like I am completely on my own.'*	SE9
Spotlight project (RSA)	*'Share our experiences over a year, all our changes, all our successes'* *'I would see that as more as a training opportunity for me, because I know that this people know a lot of stuff that I don't know, I spend some real kind of intensive quality time asking questions that I cannot ask anyone else and getting really good insights, which for me is important.'*	SE9
North East SE partnership	To promote 'how we are working' Go to other organisations and see how they operate and look at models of good practice	SE15
	Received newsletters Support from other SEs *'go in and see if there was anybody who have done this in other parts of the country'*	SE18
SE West Midlands network	Information (email) Magazines / newsletters Keep up to date	SE10
Associations / other networks		
Federation of Small Business (FSB)	Networking events *('good way of making contacts'*) Newsletters / information letters Funding information Legal help line free Company Liability insurance *'Driving people into the commercial elements of our business, so it gets us new clients'*	SE19
	Information	SE10
Birmingham Chamber of Commerce	Information	SE10
Local Chapter of the Business Network International (BNI)	*'Get business from them and we provide business to other people.* *'Good local network of infrastructure to link into'*	SE19
UK network of sex work projects (UKNSWP)	Networking, conferences, information	SE19
Islington Forum	Interesting speakers (LinkedIn coach) *'Getting the local links, knowing what's available on your doorstep, support other local business, being able to build relationships with them'*	SE19
Co-operatives UK	Legal, membership and governance advice *'Wealth of information that they can give to us'* Network opportunities Training events *'Keeping ourselves up to date with the developments in the area'*	SE16
	'You get more lobbing and power in a big group like that'	SE17
Health and Social Care Network – Voscur	Forums Networking with other organisations Proving updates and changes within the Health and Social Care sector and with the NHS Training for trustees	SE5
Self Help Housing	*'Other views now and then'* PR material from various talks	SE15
Charity retail association	Knowledge of latest legislations, legal requirements and changes in policy on procedures going forward *'so we can prepare to act properly going forward'*	SE2
Furniture Re-use		

Network (FRN)		
British Association of Counselling and Psychotherapy (BACP)	Benchmark on '*how we do continual professional development*'	SE10
National Survivor User Network (NSUN)	Electronic newsletters Information about funding, contracts, new policies, new thinking Keep updated	SE10
Birmingham Chamber of Commerce	Information	SE10
Association of British Credit Unions	Training Information	SE4
Wakefield and District Housing (WDH)		
Yorkshire Forum of Credit Unions		
Independent Publishers Guild (IPG)	Keeping up-to-date with the industry trends '*Finding out what other people are doing*' as a source of benchmark Hear about new developments Get contacts and tips Get to know *'what's going on, who's doing what, how people are getting on'* Training events	SE17
Business in the Community (ARC programme)	Information Training	SE8
Croydon Common Programme for SEs	Training	SE8
York Council for Voluntary Service	*'… it's nice to be part of an organisation like CVS and say 'look I'm struggling here, I don't feel confident to go further', and you have a realistic conversation with someone'* Training	SE9
Art Business Cymru	Training (courses) Networking	SE11
Government institution		
Welsh SE Coalition	To allow to set a store on the Welsh Assembly and *'chatted with some of the politicians'* Conferences / workshops Sharing information about sustainability *'Learning from other people'*	SE11
	Networking *'Knowing what else is there and knowing what other community business are available for us to tap into'* *'For them [other SEs] to know about us, to know the work that we are doing'*	SE13
	Networking Forums Inform *'what's going on, what funding are available'*	SE20
Community First	Partnership Share of central database	SE20
Sheffield City Council and Leeds City Council	Financial support	SE2
Other SEs and other organisations		
Other SEs	Provide equal opportunity training	SE14
	'…talk about the issues that we are facing'	SE6
	Look at models of good practice	SE10
	Verbally sharing information, sharing good practice. *'…it's like 'oh here it's a tool I use, you can use it''.* Practical support, '*sometimes just a sounding board, sometimes just a moral support…'*	SE21
	Share some ideas and 'pick their brains' about processes. *'Take a view of what other credit unions are doing'*	SE4
Other local SEs	Share information to *'prevent duplication and to ensure that we are targeting the right people'* Share good practice	SE20
Small charities	*'Partner up with them and try to help each other out'*	SE15
Accounting firms	Training Lawyer services	SE5
Partnership	Draw upon the resources from partnership organisations	SE18

Aston University and Wolverhampton University	Placements	SE10
Charity Shared Voices	Documenting journey of service users and the SE	SE10
Start-up enterprises	*'…we collaborated, we shared methods, we learned from them …'*	SE9

7. Main quotes supporting each element of the KMC-SE Model

	Quote	Part.
Organisational Capability		
Technology	*'…it's on a shared drive so people know how to search for anything they want it. We tend to be quite transparent with stuff and provide information as well. So because that's important everyone needs to be knowing what is the direction of travel that we are going in.'*	SE19
	'So one of the things that I am looking at now even simply is to put more on my websites and put more updates of the work that we are actually doing on the website ... because if I want to work with a new organisation, a micro credit project or an entrepreneurship project, at least they can see on the website what work I have done, and what the impacts have been, and all the images are there.'	SE21
	'…the basic information we use comes out from the database. Then I would say, a lot of information also, we have distributors and our warehouses in the UK, in the USA, in Canada and those warehouses obviously have information, so we have to look at it…. And inevitably you get sort of incompatibilities between databases, they have their way of doing things and we have ours. So things are not always synthesised. So it's not a completely integrated data field.'	SE17
	'won't be able to do what we do without using IT and we are always on the look-out for ways to use technology to improve our systems, improve our service and the products that we can give to our members'	SE4
	'… whenever possible, if we can afford it, we would use the technology that is available to put in systems and processes to do that'	SE2
	'…technology is a big weakness we have, more specifically database management that would allow us making sure that we know who we should be talking to, what we should be promoting to, on an on-going basis …. so then we learn how to sell things better …. most people can see what is been said and what approaches are been made to different individuals, groups or organisations'.	SE5
People	*'.. we can't pay massive pay-bonuses at the end of the year or whatever. So, we have to provide incentives and rewards as we go along'*	SE19
	'… they want to do, they need to do, something to earn some extra money and they want to do something that would benefit the society generally, so they come to work for us and they get paid for doing it and we get benefit from their professional management expertise'.	SE2
	'If you ask people in SE17 what do they want, they are not necessarily thinking growth, because they like to be this size, it's a nice working environment, and that's very important to people, working in a friendly environment … we are all very close'	SE17
	'if we want to make social enterprises really mean something, you have to have ambitious people who are willing to go that bit further, to create a business but without the believe that they would be hugely rewarded if it is successful. You have to have the people who are willing to compromise on their expectations but get the value from the social delivery as well as the financial reward'	SE12
	'if we engaged more, if we worked together in a better way we would actually achieve a lot more, but it's just finding the motivation … so it's not very easy to find time to reflect'	SE7
Structure	*'… we don't treat anything like a project. We treat it as an operation and that means it is on-going forever'*	SE12
	'We have regular team meetings for the whole organisation, we are only 12 people, where that is an opportunity for people to share the project work that they are doing and to have conversations about particular issues. So this is sort of fairly formal, in that it is regular, but people wouldn't really save that up. So otherwise the team goes into huddles (small groups) on a particular issue that they want some support with, also they can ring each other up.'	*SE6*
	'Human resources, we don't have a dedicated human resources officer, for example, so that's a job that three people share between them. '	*SE17*
	'What I'm trying to do is give people responsibility to make decisions. For example, we	*SE13*

	are changing offices at the moment and we are going to a much, much bigger premises in the next couple of weeks. It's massive, really scary, what I'm trying to do is just get people, we got a premises working group on the staff team and get them involved with not thinking 'where I am going to sit', but actually thinking of 'how we are going to do it', 'how we going to move', 'what do we need to do', 'what do we need to make decisions on', 'what can we do ourselves', 'what do we need other people involved in'. And getting them to think about all that as well, so people are making decisions and thinking of choices all the time... It's a strong team, now, I think.' *'I'm at the stage now where I only hear about problems, when problems are solved, which gives the board a lot of confidence. That's the way the staff are with me now. I only really hear about problems when everything has been done and the problem solved, which is good'*	
	'… daytime room hiring is becoming a serious issue…. all the room bookings for the city council has now stopped, which caused us a bit of an issue. And the manager who was in charge looking after the booking of the rooms has been told 'You have to refill and get people back in.' So always when it wasn't happening the finger was pointing. Now everybody has got the task to find different ways by, making approaches and actually communicating, promoting and marketing the rooms that we have to offer…. So we have done that and now we have one room which was only partly used, is 100% used during the day …. just by looking holistically, if you like, we manage to start to increase room usage during the day bringing it back up again in a very different way. So yes, everybody is working to help.'	*SE5*
	'I think in a co-operative you never really reach the perfect solution, this is my view of it, having being in this company long time, it's a constant experiment with how do you make democracy work, while also making money and surviving as a business. How do you get the work done, as a co-operative, how do you do this without introducing too much hierarchy which people don't like, and how do you be democratic which is not a normal aspiration for business, but it is if you are a co-operative business, you want to be democratic. But you also want to be efficient, you want to be successful, because at the end of the day that's where our salaries come from, so we've got to work as a business; and balancing all these things, we have a mixed mission of being a democracy and being a business, and publishing books which make an impact. And those objectives conflict with each other.'	*SE17*
	'… there is lot of informal sharing and conversations that go on between team members. And because there are work projects across different members of the organisation, they have regular informal meetings just to.'	*SE6*
	'.. it worked well in saving time, clarity, it means the staff are picking up new skills as well, because they learn to be organised and learning to use files, they didn't even know how to use a file or put a file together. So it makes them feel we are organised better, it concerns better skills, their skills. It creates a new culture within the projects as well. Now we do things properly and we do them more organised. I think it is a step change in that.'	*SE21*
Culture	*'Everybody does work together. It is not as though someone is doing one job in isolation'*	*SE4*
	'We work very co-operatively. So it's lots of team meetings, lots of sharing of ideas, lots of sharing information between staff and volunteers.'	*SE16*
	'We have to act collaboratively, and if we don't, we're breaking our own objectives'	*SE8*
	'… if you got something really great, would you be willing to share it and people, generally speaking, are very excited and want to and look forward to it.'	*SE6*
	'We don't get together as a group of directors nearly enough so our strategic aim is not as ambitious as it should be. I think it is just a problem of physical location'.	SE7
	'I think that's something that we could be better at actually, sharing information like that. But she would know where the information was held on my computer, but some of it all, it's difficult.'	*SE14*
	'… and as we get smaller, it just simply becomes unbearable. You can't, in a small organisation say we are now restructuring, and trying locating people so that they hear to what other people do and try to start talk about and help each other, so everybody knows what everybody does. That's what we are trying to do. We tried that many times. We reorganised the office, but as soon as people are in front of their computers, they just don't want to know'.	*SE2*
	'I'm quite concerned, because we have to be really careful about duplication and mixing messages that end up confusing our audiences…. I'm not holding up the power, I just want to really protect what we are doing, and don't confuse the message, and information, and with the activities that we are reporting … I want to delegate and I want to work with the new person carefully so it doesn't destroy something that I built very carefully … we just need to be careful that I don't duplicate what she does and she makes sure she shares the information and we know what she is doing, and there is only	*SE8*

	one message.'	
	'If you put a 17 years old talking to a 14 year old it is much closer, it is more relevant, the language is right, the method of communication is right.'	*Se9*
	'We also get for the meetings, we get speakers, so we have sessions on how social media can help our businesses, how we have acted on VAT; all sort of different presentations that are relevant to help us to grow the businesses'.	*SE13*
	'The CVS runs some training programmes, but they are not appropriate… I keep my ear to the ground just to see if there is something relevant, but I just think because we are so close to what we do, and we are always pushing forward, it's just difficult to justify going on a training course that I don't know if this absolutely would push me forward... Which is why I try to come down to the SE network here (RSA), I go to these Spotlight events, I would see that as more as a training opportunity for me, because I know that this people know a lot of stuff that I don't know, I spend some real kind of intensive quality time asking questions that I cannot ask anyone else and getting really good insights, which for me is important.'	*SE9*
	'Everyone has also their personal development plan and that is based on a SWOT analysis that is done yearly, so they do their strengths, weakness, opportunities and threats analysis, and they way that we do the SWOTs it's on a grid process so they have the organisational side and their personal side, and we would put where there is overlap….. the manager may talk about where the organisation is going and then they look were they want to go, and that's plotted down on a grid, to look where there is overlap around that, so where there may be some harmony or where there is complete disparity and what we do about that in terms of plotting their personal development, so it makes for a little bit of quid pro quo.'	*SE19*
	'We encourage people to go on particular workshops, training days. In some cases, we do have staff who work part-time and are doing some sort of doctorate the other part-time. We work with specific universities on placements to help with us. We have a particular link with the graduate scheme at Aston Business School at Aston University and also Wolverhampton University'	*SE10*
	'…we also have started to do, occasionally, we are trying to do it more regularly, is having a team meeting that is focused on a particular topic that might be one member of staff's expertise. So they can actually spend an hour talking about what they know on this topic and then, you know, we can have a conversation. So, it's kind of knowledge sharing a bit more about what people bring to the organisation and probably not everyone is aware of.'	*SE6*
	'… the one exception for learning really has been a gentleman called [member], who is a former director of MFI. He was the logistics and transport director for the group, and he is now moved into a social thing, controlling and liaising with the social probation services, prisons and various other things. It's been of a learning process for him, but his skills are being flexible enough to adapt to that.'	*SE12*
Process Capability		
Processes – Type of knowledge	*'I have gathered an immense amount of knowledge because the journey to this point, which has probably taken two years to get to this point, has been very problematic, and we've gone off in lots of different directions. So it's very difficult to capture that really …., there is a mechanism in there for communication, but it would never capture what I've got going on in my head, I think.'*	SE18
	'I am planning in a very long time line, I will be leaving the organisation, so I'm thinking, because I've been here a long time and there is lot of information in my head, and thinking how can I extract this and write it down; I found it quite challenging to get the right balance. You don't want to leave your successor an incredibly detailed thing that constrains them, so they don't have space to develop the job in their own way; you want to leave them enough information so they are equipped to doing their way. I find that I quite thing really. You don't want to write an encyclopaedia and leave it, that would be very intimidating and to a certain extent, when you come into a new job, you have to find out for yourself because that's how you learn. So it's getting that balance.'	SE17
	'..very embryonic and informal…')	(SE1
	'We work with a lot of agencies who collate statistical information and we, in turn, work to provide the statistics to support them'	SE2
	'Not clear about what is a KM Programme. As we provide advice and information, the constant updates and upgrades of our databases is one of our most important activity.'	SE3
	'We do continually reflect and learn and thereby try to improve practise.'	SE7
Acquisition	*'… the team goes into huddles (small groups) on a particular issue that they want some support with, also they can ring each other up. I think there is lot of informal sharing and conversations that go on between team members'.*	SE6
	'We have lots of meetings where we talk about something and then someone will say that happened three years ago and you can do it this way or we tried that before and it didn't work. None of that is really recorded yet; it's all about people and personalities, I	SE13

	suppose ‘	
	‘We have to get out and we talk to people in the community, we go to coffee mornings, I work with the local Rotary club, I was involved with a fair in the village over the summer, we will sponsor coffee mornings by buying a big cake or something like that. So it's really by, really getting into the community and working with the community. And it's really taken me, probably 18 months to get to this point now.‘	SE18
	‘a lot of it is about engaging the people and try to give them the knowledge I think they might need’	SE7
	‘We work co-operatively with our clients as well. It's lots of sharing of information, keeping them informed of what we doing, what we going to do and how we are going to look to achieve what we wish to. We try to keep people involved, try to keep them informed and most people respond to that. ‘	SE16
	‘… Policy Hub, which is like a database where we link pieces of data and information that were of use to the organisation. So, it's like a reference guide where people could find that information again. That hasn't been very successful because I think you can't get round the fact that people just want an answer. They can’t necessarily be bothered to go and look for it. So, they just ask the person who compiles the policy hub where something is. So that's not ideal.’	SE6
	‘It’s not written down, but if you sit and have conversations with people, there are known histories of the place names, the issues around the place, it helps tremendously in terms of planning and trying to understand where the gaps are in the needs of the community we are serving ….. Within the individuals who are very active within our community there is a huge amount of knowledge and it is hard to bring that knowledge out into the fore, so we can capture it and start to really plan out on a whole area basis, much more of the strategic development for our community. ‘	SE5
	‘… lots of information exchange with them, they know what's going on people's heads. We understand the value of shared information and networking with people.‘	SE13
Conversion	*‘We have board meetings where things are recorded, so if you have issues or problems they discuss them at board level and they put it in to the minutes of those meetings but really they are minuted, they're actioned, they're sorted and nothing, we learn from it at that time but it's not something that it's stored anywhere afterwards for people to use.’*	SE13
Application	*‘I think BBCA existed before me and will exist after me as well. It sort of up to us to make sure that we set things up right … I don't want to be in the situation where I couldn't make a move without the organisation collapsing’*	SE11
	‘… certain kind of knowledge that individuals might have, like myself, sort of cascade it down through those sort of meetings. We sort of build in succession planning into the organisation, from quite a long time ago. We are very conscious about that, particularly myself, have a lot of information that is in my head, and that information needs to be cascaded down’	SE10
	‘.. at the moment, without me being around, the company won't really function.‘	SE14
	‘I know if I am run over by a bus tomorrow, all the actual running of the company would go with me, it's an interesting question. I don't know ‘	SE9
	‘You like to think that you are irreplaceable, but nobody is. If something happened to me tomorrow, obviously there is an amount of knowledge that I have, knowledge and experience that will disappear.’	SE16
	‘We need to be more robust about succession, because the organisation is needed. We know the clients are going to keep coming through the door, but we need to make sure that we are here to help them.’	SE15
	‘There is nobody else within my organisation to take on that role, so that needs to ... if we really want this organisation to stand on its own feet and be longer lived and ….then we have to work in succession planning and bringing in another people … So that's all about power sharing and information sharing. I'm willing to do it, it's just that I need time, it quite hard work to do that. And it means that I would have to explain myself, and explain my ethos and I would have to write all down somewhere. ‘	SE21
	‘What happened is because we had very good data from our services, we were able to communicate that to commissioners. Commissioners then commissioned a contract to develop a virtual service, because we provide the initial information, we were able to win the tender. We still have to compete but we obviously often have an inside track on that information. So we are able to say, 'actually we know about that and that subject, we’ve got data' and that put us in a stronger position with other people’.	SE10
	‘data and information is what we are about’	SE3
	‘We believe we have a lot of intellectual property, we have a trademark, we currently protect that trademark, and we also have a unique way of working, which is an approach which developing sort of manuals and books about that, that we can actually get an income from, being a pioneer in mental health. What we are trying to do, I suppose, is to capitalise on our intellectual property in the organisation. ‘	SE10

	'… building a strong business case and then potentially franchising it. So I would like us to have a model, have a philosophy and be able to replicate that elsewhere, so people want to buy into the franchise.'	SE19
Protection	*'I'm quite concerned, because we have to be really careful about duplication and mixing messages that end up confusing our audiences. And to be honest, I'm working on that, because it's a role description, and [other director] thinks the role description should be more frontline and, I'm not holding up the power, I'm just want to really protect what we are doing, and don't confuse the message, and information, and with the activities that we are reporting. That's what happen to organisations when they develop isn't it? overlapping roles and well, I want to delegate and I want to work with the new person carefully so it doesn't destroy something that I built very carefully.'*	SE8
Organisational performance	*'We've got a new project that we are trying to get going for a community technical aid centre which would basically broker complex projects around capital buildings, improve people's management of their buildings, put them in touch with professional knowledge like architects, mechanics, be a sort of broker between community organisations, or people with less experience with more professional services.'*	SE7
	'I don't think we have a coherent way of understanding how to value that knowledge. I think it is very much, a lot of it, is about the reputational stuff, if we do a good job, if we get feedback for our clients, and that give us the sense we are on the right track'.	SE7
	'… by working with the community around the community bus service, I unearthed a need which was about a luncheon club, and people were saying to me 'if we have a bus, wouldn't it be nice if we could go and visit a lunch club?', and I was saying 'Yeah, that maybe is going to be our next project'. So for us, I do keep my eye on it, it would be a lie if I say I didn't. Our needs would be identified by working very closely, I think at grass root level.'	SE18
Contextual variables	*'We have just introduced a community bus service and it starts on the 9th November. So, by being part of the Social Enterprise network, what I was able to do was, I was able to go in and see if there was anybody who have done this in other parts of the country. And so I contacted somebody who lived in the South of England, who actually, what he did do was he helped me to write the press release which is about to go out.'*	SE18
	'… this sector is already a delicate sector, and it's fragile at the moment. And there's a lot of competition between agencies for money, and all their clients came from trust funds, and they are all doing it separately, they are not collaborating to each other. Already there are a number of overlapping projects doing the same thing, they should be put together, they should be doing collaborative. Some people don't share information. ….. I just want to share information without worrying that they're going to use that information to push in a bit, which is what the normally do. The [sector] Council is the worst. They are really good at stealing other people's intellectual property.'	SE8