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**An exploration of the potential of supply chain accounting
to promote both economic and social upgrading:
a case study in Brazil**

By:

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ABSTRACT

The main purpose of this study is to explore the potential of supply chain accounting (SCA) for promoting both economic and social upgrading. In pursuit of this aim, this study examined the SCA practices used by a case study focal organisation in the textiles industry in Brazil and across its supply chain. SCA refers to the domain of management accounting and controls in inter-organisational settings. Drawing on institutional theory, this study investigated the impact of the SCA practices used across the case study supply chain on the wider economic and social context in which the organisations operated. The analysis is based on an in-depth case study. Sources of data included in-depth interviews with senior and middle managers within the focal organisation and five of their main suppliers, and within other organisations that represented the wider Brazilian institutional context (national and regional industry federations, trade unions, and a development bank), totalling 32 interviews across 11 organisations. The evidence shows that the SCA practices used across the case study supply chain impacted upon their external social and economic environment. Thus, this study argues that SCA has the potential to promote both economic and social upgrading. Although the intention of this study was to find best practices, the findings revealed instances in which the SCA practices impacted upon the external environment both in positive and in negative ways. Nonetheless, the evidence of the impact of SCA on the economic and social environment imply that SCA has the potential to promote both economic and social upgrading. This study contributes to the literature of management accounting in developing countries, and to research of accounting as a mechanism for development. This research has implications for policy and practice. Firstly, by examining the impact of SCA on the wider economic environment in which the organisations operated, this study has elucidated some of the factors that impacted upon the low competitiveness of the textiles industry in Brazil. Therefore, these findings may help inform policy and organisational practices aimed at increasing the competitiveness of the industry. Secondly, the findings in this study suggest that SCA had the potential to promote better social practices across supply chains. Considering both the moral and the business cases for managing social issues, these findings may also influence companies' practices, policies and codes of conduct.

CHAPTER 1: INTRODUCTION

1.1 Background and purpose of the study

The main purpose of this study is to explore the potential of supply chain accounting to promote both economic and social upgrading. It has been argued that economic upgrading (the move to higher value activities) does not necessarily lead to social upgrading (improvements in the rights and entitlements of workers) (Gereffi & Lee, 2016; Rossi, 2013; Barrientos, Gereffi & Rossi, 2011). This study explores the potential of supply chain accounting to promote both economic and social upgrading across the supply chain. In pursuit of this aim, this research explored the supply chain accounting practices used by a focal organisation in the textiles industry in Brazil and across its supply chain and examined the impact of these practices on the external economic and social environment in which the organisations operated. Economic upgrading has been argued to be a key process to promote development (Rossi, 2013). Thus, by achieving its main purpose this study contributes both to empirical research of supply chain accounting and to the emerging literature of accounting as a cog mechanism for development (Hopper, Lassou & Soobaroyen, 2017; Hopper & Bui, 2016; Hopper et al., 2012).

Research on management accounting and controls that transcended the traditional organisational boundaries has been called for over two decades ago by Hopwood (1996), and since then many researchers have contributed to the growing literatures on management accounting and management controls in inter-organisational settings. Many different terms have been used to refer to this emerging literature, including (but not limited to): inter-firm management accounting (Dekker, 2016); inter-organisational management accounting (Caglio & Ditillo, 2012), inter-organisational cost management (Fayard et al., 2012; Windolph & Moeller, 2012; Möller, Windolph, & Isbruch, 2011; Agndal & Nilsson, 2009; Coad & Cullen, 2006; Cooper & Slagmulder, 2004) and supply chain accounting (Cullen & Meira, 2010; Free, 2007, 2008; Seal, Berry, & Cullen, 2004). This thesis uses the term supply chain accounting to refer to the domain of management accounting and controls in inter-organisational settings. This term has been chosen in order to be consistent with a wider ESRC funded project of which this research forms part.

Supply chain accounting (SCA) involves the use of management accounting techniques beyond organisational boundaries, promoting cooperative actions between buyers and suppliers. It has been argued that SCA has emerged as a means of managing inter-firm relationships (Dekker, 2016; Cullen & Meira, 2010; Caglio & Ditillo, 2008). In other words, SCA can be a means of managing control problems in inter-firm relationships by, for example, promoting trust between buyers and suppliers (Ruel, Shaaban, & Wu, 2017; Agndal & Nilsson, 2010; Kajuter & Kulmala, 2005). Others have argued that firms engage in SCA primarily aimed at achieving costs reductions, processes improvements, value creation and increased competitiveness which would not be possible if firms worked independently (Möller, Windolph, & Isbruch, 2011; Agndal & Nilsson, 2009; Coad & Cullen, 2006; Dekker, 2003). Therefore, it can be argued that the use of SCA practices has the potential to increase competitiveness of a firm and across its supply chain (both in terms of quality and of costs) and, in turn, to increase economic gains across the supply chain.

On the other hand, another strand of literature argues that economic upgrading does not necessarily lead to social upgrading (Barrientos, Gereffi, & Rossi, 2011; Hale & Wills, 2007; Barrientos & Kritzing, 2004). For example, Hale & Wills (2007) argue that the growing competition between retailers for cheap and flexible production combined with the development of new technology leads to a shift in power from supplier to buyer and in turn degrades work conditions in the subcontracted firms. Relatedly, some authors argue that the work conditions are likely to be better in the factory of preferred suppliers that are regularly audited than in subcontracted firms which are not closely monitored (Barrientos, Gereffi, & Rossi, 2011; Locke et al., 2007). Therefore, there seems to be a potential for inter-firm collaborations to promote social upgrading across supply chains. This study contributes to this debate by exploring the potential of SCA to promote both economic and social upgrading.

Social accounting and social issues in supply chains are areas in much need of research. Yawar & Seuring (2017) made an important contribution to the advancement of this area in a recent literature review at the intersection of Supply

Chain Management and of Corporate Social Responsibility. The authors identified a range of social issues that firms encounter across their supply chains, and some of the “responsible supply chain actions” taken up by firms in managing those issues (Yawar & Seuring, 2017, p. 622). This research also adds to this debate by examining the impact of SCA on the social context in which an organisation operates and exploring the potential of SCA as a means to promote social upgrading.

This research is based on an in-depth case study in the textiles industry in Brazil. Data collection includes in-depth interviews with senior and middle managers within the focal organisation and five of their main suppliers (three in Brazil and two in Europe), and within other organisations that represent the wider Brazilian institutional context (industry federations, trade unions, and a development bank), totalling 32 interviews across 11 organisations. The case study focal organisation (CarpetCo) operated in the textiles industry in Brazil in the household segment, specialising in floor covering products (mainly carpets). CarpetCo was part of an international group (TexCorp) and the owner of the group had family links with another international group (DutexCorp). The plant in Brazil, which had approximately 100 employees, manufactured products in-house and sold its products to the Brazilian market (99%) as well as to other countries in South America (1%). CarpetCo bought its raw materials from both the internal (Brazilian) market and the external market, and the supplier base included third party firms, firms from within TexCorp, and firms with family links. Therefore, CarpetCo formed a complex supply chain that went beyond country and industry boundaries. By using a case study in the textiles industry in Brazil, this research contributes to the literature by providing empirical evidence of the SCA practices in an emerging economy. Furthermore, by collecting data in a focal organisation and in other organisations across its supply chain, this research contributes to limited research that studies a whole supply chain (Caglio & Ditillo, 2008, p. 882).

The textiles industry is an important sector in Brazil both in terms of production value (economic context) and in terms of employment generation (social context) (ABIT, 2015, 2016). Nevertheless, the Brazilian textiles industry was struggling to compete in the global market, both in terms of quality and price (Costa & Rocha, 2009). In other words, the textiles industry in Brazil seemed to be “stuck in the

middle”, struggling to compete with high-end technology countries in terms of quality and with low-cost countries in terms of price. This research explores the potential of SCA practices to increase the competitiveness of the textiles industry in Brazil. This research also examines the impact of the SCA practices used across the case study supply chain on the broader social context in which the organisations operated, and explores the potential of these SCA practices to promote social upgrading across the supply chain. By achieving these objectives, this research aspires to shed light into social and economic upgrading opportunities for the textiles industry in Brazil.

This research uses the lens of institutional theory to obtain an in-depth understanding of the rules and routines in terms of SCA practices within the case study focal organisation and across its supply chain. The conceptual framework of this study combines concepts of both Old Institutional Theory (OIE) and New Institutional Sociology (NIS), allowing an exploration of all the core elements that shape (or have shaped) these rules and routines, including the internal and external pressures, and intra-organisational dynamics.

1.2 Research objectives

The main purpose of this study is to explore the potential of supply chain accounting (SCA) to promote both economic and social upgrading. More specifically, the following research objectives have been developed:

1. Identify the SCA practices used by a case study focal organisation in Brazil and across its supply chain, contributing to empirical research of SCA in developing countries;
2. Investigate the factors that shaped the SCA practices used across the case study supply chain using the lens of institutional theory;
3. Examine the impact of the SCA practices used across the case study supply chain on the external economic environment in which the organisations operate, exploring the potential of these practices to promote economic upgrading;

4. Examine the impact of the SCA practices used across the case study supply chain on the broader social context in which the organisations operate, exploring the potential of these practices to promote social upgrading.

The first objective has been developed aimed at identifying the SCA practices used in Brazil, using a case study in the textiles industry. This study refers to SCA as the domain of management accounting and controls in inter-firm settings. In this context, SCA practices encompass control archetypes, management control mechanisms and cost and accounting controls (see Caglio & Ditillo, 2008). In order to achieve this objective, semi-structured interviews were conducted within the focal organisation and with some of its suppliers, and the questions were developed in a way that allowed me to identify the SCA practices used by the firms in the supply chain even when interviewees were not familiar with the terms and technicalities of the practices found in the literature. By achieving this objective, this study contributes to the SCA literature, providing empirical research of SCA in a developing country.

The second objective refers to using the lens of institutional theory to investigate the factors that shape (or have shaped) the use (or not) of SCA in Brazil. In order to achieve this objective, a conceptual framework using the concepts of institutional theory was devised and utilized as an auxiliary to obtain an in-depth understanding of the factors that influenced the embedded rules and routines in terms of SCA practices within the case study focal organisation and across its supply chain, including the external (external environment), internal (intra-organisational dynamics) and inter-organisational (supply chain related) factors.

The third and fourth objectives refer to this study's aim of exploring the potential of SCA to promote both economic and social upgrading. In order to achieve these objectives, this study explored the impact of the SCA practices used by the case study organisation and across its supply chain on the external social and economic environment in which the organisations operated, using the lens of institutional theory. By achieving this objective, to some extent this study also contributes to management accounting research addressing social issues.

1.3 Situating the study's intended contributions to knowledge

With the purpose of helping management accounting researchers to situate their study's contribution to knowledge, Lukka & Vinnari (2014) proposed the distinction between domain theory and method theory. The authors define domain theory as "a particular set of knowledge on a substantive topic area situated in a field or domain such as management accounting" and method theory as "a meta-level conceptual system for studying the substantive issue(s) of the domain theory at hand" (Lukka & Vinnari, 2014, p. 1309). Lukka & Vinnari (2014) propose that method theories can help advance knowledge in a particular domain theory even when the method theory is applied as an instrument and does not change itself. For example, the authors argue that various method theories used in previous management accounting research have contributed to shape our understanding of what management accounting is and, in turn, "management accounting knowledge has gradually become what it previously was not" (Lukka & Vinnari, 2014, p. 1310). The concepts put forward by Lukka & Vinnari (2014) have been criticised by Lowe, De Loo & Nama (2016), provoking an interesting debate around what constitutes theoretical contribution in management accounting research. For example, Lowe, De Loo & Nama (2016) challenge the viability of distinguishing between domain theory and method theory, arguing that they are intertwined in nature. Lukka & Vinnari (2016) responded by arguing that domain theory and method theory are mostly marginally intertwined, and the authors maintained that making a distinction between them is both feasible and helpful. I find the concepts of domain theory and method theory proposed by Lukka & Vinnari (2014, 2016) helpful to enable me to locate my contributions to knowledge.

This study is located within the domain of supply chain accounting (SCA). A domain of research is a result of many factors, including debates within a research community as well as "the choices made by individual researchers when positioning their studies" (Lukka & Vinnari, 2016, p.318). The chosen positioning of this study is the domain of supply chain accounting (SCA) which, in the context of this study, encompasses research on management accounting and controls in inter-organisational settings. This study contributes to the domain theory of SCA in three ways. Firstly, this study empirically explores the use of SCA in Brazil and, in turn,

contributes to the under-researched area of management accounting practices in developing countries (Hopper & Bui, 2016; Hopper et al., 2012). Secondly, by exploring the impact of the SCA practices used across the case study supply chain on the broader social context in which the organisations operated, this study also addresses calls for accounting research that deal with social issues (Hopper & Bui, 2016). Thirdly, by studying the potential of SCA to promote both economic and social upgrading across a specific supply chain in Brazil, this study also addresses calls for accounting research that contributes to development and developing countries (Hopper, Lassou, & Soobaroyen, 2017; Hopper & Bui, 2016).

The method theory utilised in this study is institutional theory. In other words, institutional theory is used as an auxiliary to enable this study's contributions to the domain theory of SCA. Lukka & Vinnari (2014) argue that, although both domain theory and method theory tend to be moving fields, domain theories tend to change more often than method theories. Moreover, method theories can help advance knowledge in a particular domain theory even when the method theory is applied as an instrument and does not change itself (Lukka & Vinnari, 2014). Accordingly, this study uses institutional theory as an instrument to advance knowledge in the domain theory of SCA.

Finally, this study also has practical implications. By exploring the potential of SCA to increase competitiveness of the textiles industry in Brazil, this research aspires to shed light into social and economic upgrading opportunities for the textiles industry in Brazil. As explained above, contribution to practice entails a continuous process of dissemination of research findings and business engagement. For example, the research preliminary findings were presented to the case study focal organisation at the end of the second phase of data collection, aiming at influencing organisational practices. Moreover, to some extent, this study may have influenced the organisational practices by presenting interviewees with thought provoking questions, which challenged the embedded institutions.

1.4 Structure of the thesis

The remainder of this thesis is structured as follows. The next chapter (Chapter 2) provides a literature review of supply chain accounting (SCA), the domain theory in which this study is positioned, with a particular focus on the practices SCA that were more relevant to the case study. The chapter also highlights the gap(s) in the SCA literature which are addressed in this study. The following chapter (Chapter 3) offers a review of institutional theory in management accounting research, which is the chosen theoretical lens to underpin this research. The chapter ends with a conceptual framework designed to analyse the SCA practices studied in this research. Chapter 4 describes the research methods employed to achieve the objectives of the study. Chapters 5 and 6 describe the context of the case study based on the findings from the fieldwork. Chapter 5 presents the textiles industry in Brazil, exploring the institutions that influence the SCA practices and the social issues across the industry's supply chain. Chapter 6 introduces the case study focal organisation and its supply chain. The following four chapters discuss the management accounting and control mechanisms (or SCA practices) used across the case study supply, addressing the research objectives proposed for this study. Chapter 7 discusses Inter-firm governance mechanisms observed across the case study supply chain. Chapter 8 discusses the Make-or-buy decision process observed in the case study. Chapter 9 discusses the Customer accounting practices used by the case study focal organisation and their impacts across the entire supply chain. Chapter 10 discusses the Open Book Accounting practices across the entire supply chain. Finally, the final chapter provides conclusions and summarises the contributions of the study. Figure 1.1 summarises the structure of the thesis explained above.

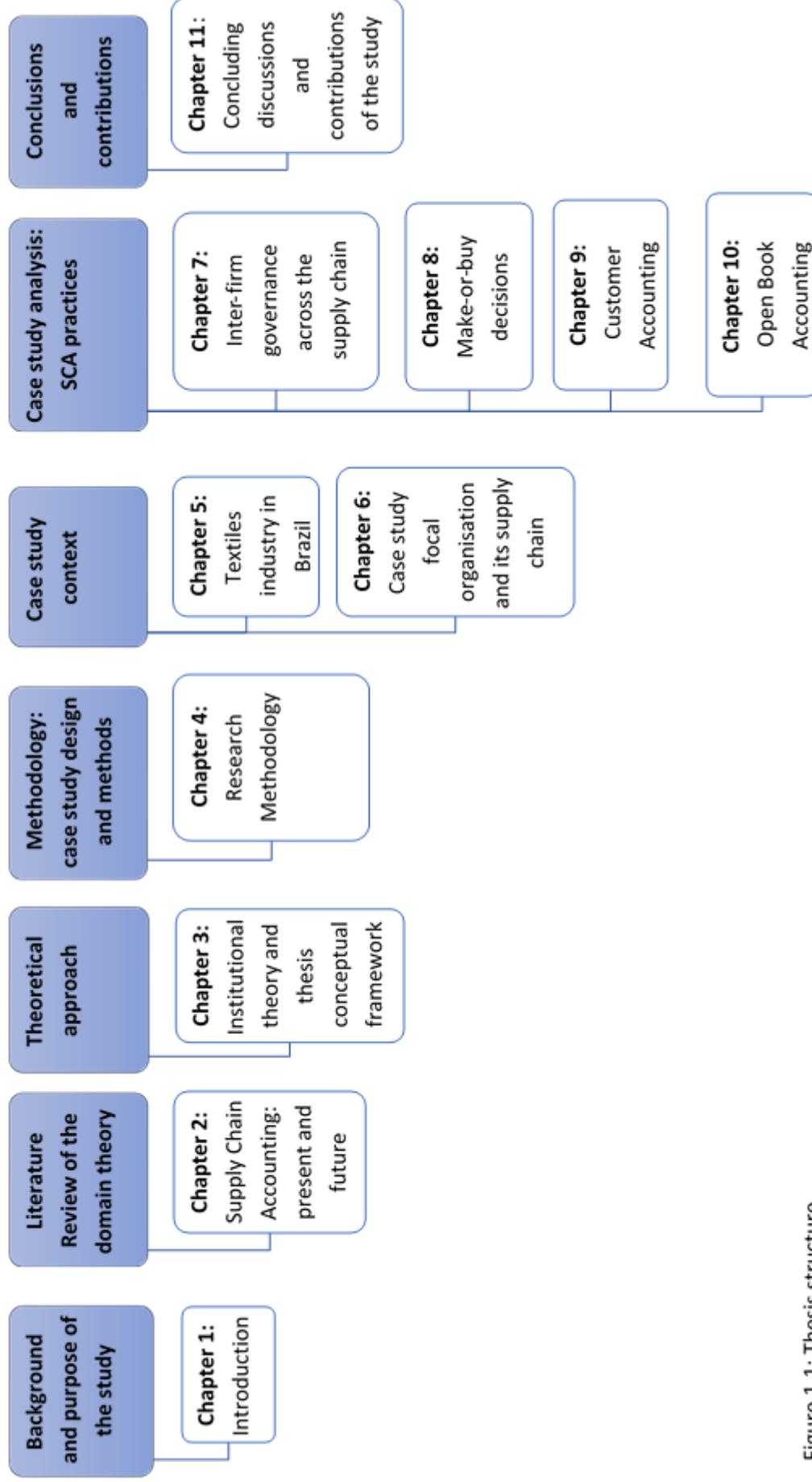


Figure 1.1: Thesis structure

CHAPTER 2: SUPPLY CHAIN ACCOUNTING: PRESENT AND FUTURE

As explained in the previous chapter, the main purpose of this study is to explore the potential of supply chain accounting (SCA) to promote both economic and social upgrading. In pursuit of this aim, this study explores the SCA practices used by a focal organisation in the textiles industry in Brazil and across its supply chain. Research on management accounting and controls that transcends the traditional organisational boundaries has been called for over two decades ago by Hopwood (1996), and since then many researchers have contributed to the growing literatures on management accounting and management controls in inter-organisational settings (Hopper & Bui, 2016). Many different terms have been used to refer to this emerging literature, including (but not limited to): inter-organisational/inter-firm management accounting (Caglio & Ditillo, 2012; Dekker, 2004), inter-organisational cost management (Fayard et al., 2012; Windolph & Moeller, 2012; Agndal & Nilsson, 2009; Coad & Cullen, 2006; Cooper & Slagmulder, 2004); and supply chain accounting (Cullen & Meira, 2010; Free, 2007, 2008; Seal, Berry, & Cullen, 2004).

As a result of a review of the main contributions to the literature of management controls in inter-organisational settings, Caglio & Ditillio (2008) proposed a categorisation of this emerging literature according to the breadth of the control solutions studied. Caglio & Ditillio (2008) suggest three categories of controls in inter-organisational settings: control archetypes, management control mechanisms, and cost and accounting controls. In Caglio & Ditillio's (2008) model, control archetypes refer to inter-firm arrangements encompassing a mix of different types of market-based, hierarchical/bureaucratic or alternative control mechanisms. Examples of control archetypes include competitive biddings (Langfield-Smith & Smith, 2003; van der Meer-Kooistra & Vosselman, 2000), comprehensive and detailed contracts (Sartorius & Kirsten, 2005; Langfield-Smith & Smith, 2003; Speklé, 2001; van der Meer-Kooistra & Vosselman, 2000), and information on partners' reputations (Speklé, 2001; van der Meer-Kooistra & Vosselman, 2000). Management control mechanisms refer to individually specified mechanisms, such as information systems for collaborative planning (Tomkins,

2001), performance monitoring and rewarding (Dekker, 2004), and socialisation processes (Mahama, 2006). Finally, cost and accounting controls refer to control mechanisms based on cost and accounting information, such as open book accounting (Kajuter & Kulmala, 2005), value chain analysis (Coad & Cullen, 2006; Dekker, 2003), and inter-organizational cost management (Cooper & Slagmulder, 2004). This thesis uses the term supply chain accounting (SCA) to refer to the domain of management accounting and management control in inter-organisational settings. In other words, in this thesis the term SCA encompasses all forms of controls in inter-organisational settings, including control archetypes, management control mechanisms and cost and accounting controls.

Supply chain accounting (SCA) involves the use of management accounting techniques beyond organisational boundaries, promoting cooperative actions between buyers and suppliers. It has been argued that SCA has emerged as a means of managing (new) inter-organisational arrangements (Dekker, 2016; Cullen & Meira, 2010; Tsamenyi & Cullen, 2010; Caglio & Ditillo, 2008). In other words, SCA can be a means of managing control problems in inter-firm relationships by, for example, promoting trust between buyers and suppliers (Agndal & Nilsson, 2010; Kajuter & Kulmala, 2005). Other authors argue that firms build collaborative relationships with their partners in search for lower costs, processes improvements, value creation, and increased competitiveness, which would not be possible if firms worked independently (Möller, Windolph, & Isbruch, 2011; Meira et al., 2010; Agndal & Nilsson, 2009; Coad & Cullen, 2006; Dekker, 2003). The SCA practices can vary depending on the type of relationship between buyers and suppliers. In arm's length relationships, where the main focus is on low cost, the use of traditional management accounting techniques such as target costing is commonly observed, while in more collaborative relationships, more sophisticated techniques are adopted, such as open book accounting (Cullen & Meira, 2010). It has been argued that competition is no longer between companies, but between networks of interconnected organisations (Ruel, Shaaban, & Wu, 2017; Christopher, 2016; Tejpal, Garg, & Sachdeva, 2013; Meira et al., 2010); and that supply chain relations are firms' assets that can enhance their competitive position (Dekker, Sakaguchi, & Kawai, 2013). Therefore, it can be argued that the use of SCA practices has the potential to increase competitiveness of a firm and its supply chain (both in terms

of quality and of costs) and, in turn, to contribute to the economic upgrading of an industry's supply chain.

On the other hand, it has been argued that economic upgrading does not necessarily lead to social upgrading (Barrientos, Gereffi, & Rossi, 2011; Hale & Wills, 2007; Barrientos & Kritzing, 2004). Barrientos, Gereffi, & Rossi (2011) argue that there are different types of economic upgrading, and that these may have different implications for workers (and therefore for social upgrading). For example, economic upgrading may involve the introduction of more advanced products (product upgrading), and therefore it may require more skilled labour (Barrientos, Gereffi, & Rossi, 2011). Economic upgrading may involve production process improvements (process upgrading) which may be achieved by automation (e.g. substituting capital for labour), and therefore it may reduce work for skilled and/or unskilled labour (Barrientos, Gereffi, & Rossi, 2011). This study explores the potential of SCA as a means for promoting both economic and social upgrading.

Hale & Wills (2007) argue that the growing competition between retailers for cheap and flexible production combined with the development of new technology leads to a shift in power from supplier to buyer and in turn degrades work conditions in the subcontracted firms. Relatedly, some authors argue that the work conditions are likely to be better in the factory of preferred suppliers that are regularly audited than in subcontracted firms which are not closely monitored (Barrientos, Gereffi, & Rossi, 2011; Locke et al., 2007). Therefore, there seems to be a potential for inter-firm collaborations to promote social upgrading across supply chains. This chapter provides a literature review of SCA, with a particular focus on the SCA practices that were more relevant to the case study. The chapter also highlights the gap(s) in the SCA literature which are addressed in this study.

2.1 Inter-firm governance

It has been argued that effective governance and control mechanisms in inter-firm relationships are important strategic decisions (Dekker, 2008) and that they can be a source of corporate and inter-organisational competitive advantage (Estampe et al., 2013; Cullen & Meira, 2010; Dekker, 2004). Therefore, it can be argued that

inter-firm governance is a key area for emerging economies striving to achieve increased competitiveness, particularly for the Brazilian textiles industry. Inter-firm governance involves both the initiation and maintenance of inter-firm relationships. Ireland, Hitt, & Vaidyanath (2002) argue that firms ought to choose an appropriate partner after deciding to seek collaboration with an external supplier rather than producing internally. It could, therefore, be argued that firms may engage in make-or-buy decisions as an alternative mechanism for coping with control problems in inter-firm relationships. A review of the literature on make-or-buy decisions is given later in this chapter. The next sub-sections will provide a review of the literature on the control mechanisms used to cope with control problems, namely governance structure (or relationship arrangements), partner selection, and alternative informal controls.

2.1.1 Antecedents of inter-firm governance

Studies that examine the antecedents for selecting a partner and choosing an appropriate governance structure tend to focus on the control problems related to the characteristics of the transactions and/or of the tasks involved in the inter-firm relationship. For example, many studies propose that the key determinants of inter-firm governance choices are related to the transaction risks, which include: asset specificity, uncertainty, transaction size, and frequency of transactions (Dekker, Sakaguchi, & Kawai, 2013; Ding, Dekker, & Groot, 2013; Agndal & Nilsson, 2010; Dekker, 2008). Dekker (2008) proposed a model that conceptualises the control problems that determine the design of inter-firm governance (which he refers to as control solutions) which includes issues of appropriation concerns, coordination requirements, and dependence in inter-firm relationships. In his model, appropriation concerns refer to control problems arising from transaction characteristics, such as asset specificity and uncertainty; coordination requirements refer to problems associated to task characteristics, such as task interdependence; and dependence relates to the overall economic relationship between the partners, which may involve both current and future transactions. The next sub-sections explore the factors that shape the control mechanisms used to manage inter-firm relationships, including inter-organisational factors, such as the characteristics of the transaction and of the social relationships between buyers

and suppliers, and the external factors, such as the economic environment and government initiatives.

2.1.1.1 Transaction characteristics

As explained above, many studies suggest that the characteristics of the transaction between two or more partners in the supply chain are key factors that shape inter-firm governance. Transaction characteristics include, among others, asset specificity and uncertainty (Dekker, Sakaguchi, & Kawai, 2013; Agndal & Nilsson, 2010; Dekker, 2008). Asset specificity relates to significant investments in assets dedicated to a specific transaction, and the extent to which these investments can be used in other transactions without loss of value or incurring high cost (Dekker, Sakaguchi, & Kawai, 2013; Agndal & Nilsson, 2010; Dekker, 2008). These investments may be in physical assets, such as tools, computer systems and machinery acquired specifically to satisfy the demands of a particular buyer, as well as in human assets, such as specific skills, knowledge and experience of individuals in the firm (Agndal & Nilsson, 2010).

Uncertainties may arise particularly when the product is critical to the buyer, whereby failures in quality and delivery, for example, may have significant consequences for the buyer (Kumra, Agndal, & Nilsson, 2012; Agndal & Nilsson, 2010). Uncertainties may involve both behavioural (relational) and environmental (external) uncertainties. Dekker, Sakaguchi, & Kawai (2013) propose a distinction between three different types of uncertainty that may affect inter-firm relationships: environmental variability (concerned with changes in market and technology), technological development unpredictability, and behavioural (monitoring problems) (Dekker, Sakaguchi, & Kawai, 2013). Behavioural uncertainty refers to the lack of predictability and control over how the transaction partner will behave (Agndal & Nilsson, 2010). These may occur when the exchange involves high levels of supplier dependence and high switching costs and where there are few alternative suppliers (Agndal & Nilsson, 2010). Environmental uncertainty refers to the lack of predictability and control over the wider environment in which the transaction occurs (Agndal & Nilsson, 2010; Noordewier, John, & Nevin, 1990). Examples of environmental uncertainties include complexity and technological uncertainty (Agndal & Nilsson, 2010), thus these may arguably be particularly

relevant within emerging economies. What is more, environmental uncertainty may increase behavioural uncertainties. For example, Caglio (2017) argues that in times of recession behavioural uncertainty in inter-firm relationships increases.

2.1.1.2 Partner experience and social embeddedness

Economic transactions are inevitably embedded in social relationships (Xie, Liang, & Zhou, 2016), thus the social relationships developed between the individuals within the organisations involved in the transaction may affect the inter-firm governance mechanisms. Many authors found that another important factor that shaped inter-firm governance is the social embeddedness (or partner experience) involved in the inter-firm relationship (Xie, Liang, & Zhou, 2016; Ding, Dekker, & Groot, 2013; Dekker, 2008; Buskens, Batenburg, & Weesie, 2003). Partner experience refers to the experience between the buyer and the supplier developed during previous transactions (Dekker & Van den Abbeele, 2010). The term social embeddedness can be used more broadly to refer to information held by the buyer acquired from the buyer's own previous experience with the supplier and/or from the supplier's previous experience with other partners (Buskens, Batenburg, & Weesie, 2003).

In terms of partner selection, Buskens, Batenburg, & Weesie (2003) argue that after controlling for standard decision criteria such as price, quality, and service, an important factor that influences the supplier selection process is the social embeddedness between the buyer and the supplier. Buskens, Batenburg, & Weesie (2003) further argue that social embeddedness is particularly relevant when the product supplied is critical to the buyer. Previous partner experience may also play a role in reducing behavioural uncertainty in exchange transaction. For example, selecting suppliers from prior social relationships enables the buyer to collect important information such as the suppliers' capabilities, trustworthiness, and reliability; and to reduce potential opportunism (Xie, Liang, & Zhou, 2016). Dekker (2008) argues that previous experience and/or familiarity with the exchange partner is associated with the use of less extensive governance structures.

2.1.1.3 Regulations and government initiatives

Government initiatives may be another factor that influences inter-firm governance (Scapens & Varoutsas, 2010; Seal, Berry, & Cullen, 2004). For example, Seal, Berry, & Cullen (2004) conducted a case study on inter-firm accounting within a UK manufacturer and they show that the case company extended its range of supply chain relationships aided by governmental initiatives. They observed that the Department of Trade and Industry's (DTI) policy for regional growth and development, which encouraged the creation of regional networks of entities, enabled a broader scope for the supply chain relationships.

In a more recent study, Meng et al. (2018) explored the impact of the (Chinese) government's introduction of carbon tax (CT) on the make-or-buy decisions. In their paper, they developed a supply chain model whereby the government is portrayed as the third player in the supply chain (alongside the manufacturer and the supplier). Chiwamit, Modell, & Scapens (2015) have recently conducted a study exploring the role of regulations in shaping the adoption of management accounting innovation (MAI) in general. This study investigates the extent to which the local and national (Brazilian) regulations and government initiatives impacted upon the SCA practices in the textiles industry in Brazil.

2.1.2 Control mechanisms

Control mechanisms in inter-firm settings are the mechanisms used mitigate control problems arising from inter-firm relationships across supply chains. Inter-firm governance involves both the initiation and maintenance of inter-firm relationships; therefore, control mechanisms involve both governance structure design and partner selection. While partner selection focuses on reducing control problems in inter-firm relationships by finding a reliable and competent supplier, the choice of governance structure (or relationship arrangement) focuses on both reducing and managing control problems (Xie, Liang, & Zhou, 2016; Dekker, 2008). Although partner selection and the choice of governance structure (or relationship arrangement) are considered the key control mechanisms in inter-firm relationships, inter-firm governance may involve a wide range of control

mechanisms, including contractual and non-contractual arrangements and controls. For example, control mechanisms may involve contractual contingency planning, performance target setting, information sharing, process reviews and joint problem solving, regulating suppliers' behaviour incentives, monitoring and rewarding outcomes and behaviour (Xie, Liang, & Zhou, 2016; Dekker, Sakaguchi, & Kawai, 2013; Dekker, 2008). This section explores the control mechanisms observed across the case study supply chain, including the relationship arrangement, supplier selection and the alternative, informal controls.

2.1.2.1 Relationship arrangements (governance structure)

The relationship arrangement between buyers and suppliers can range from interactions that are close to a pure market perspective, where external suppliers sell standard products to multiple customers (i.e. where asset specificities are low), to strategic partnerships, in which firms show their desire to work together over the longer term (Agndal & Nilsson, 2010; Cullen & Meira, 2010; Cooper & Slagmulder, 2004). When firms outsource more significant items (i.e. when a product is critical to the buyer), they may choose to engage in inter-organisational cost management efforts and develop hybrid forms of relationships. Hybrid organisations involve a broad range of decisions about the location of the firms' boundaries and the governance structure that controls the relationships (Cooper & Slagmulder, 2004).

Many studies on inter-firm governance suggest that the relationship arrangements are based on the characteristics of the transactions and/or of the tasks involved (Agndal & Nilsson, 2010; Dekker, 2004, 2008; Cooper & Slagmulder, 2004). For example, Cooper & Slagmulder (2004) argue that the inter-firm relationship governance structure is based on partners' responsibilities for product design and specifications. While exploring hybrid forms of relationships in a Japanese manufacturing enterprise, Cooper & Slagmulder (2004) identified four different types of relationship between buyers and suppliers based on their respective responsibilities for product design and specifications: (1) family members; (2) major suppliers, (3) subcontractors, and (4) common suppliers. In their model, family member suppliers reflected a relationship with a high level of design dependence,

where the responsibility for predominant specifications and design were shared by buyers and suppliers. Major suppliers were responsible for the product design, but the responsibility for the product specifications remained with the buyer. Subcontractors were only responsible for manufacturing, whereas responsibility for establishing specifications and designing the products remained with the buyer. Finally, common suppliers were those that sold standard products for multiple customers; therefore, they took responsibility for all aspects of design and manufacture of the parts.

Agndal & Nilsson (2010) argue that inter-firm relationship arrangements are based on the purchasing strategy, which deals with asset specificities and levels of uncertainty. Agndal & Nilsson (2010) propose two different categories of purchasing strategy: (1) a transactional purchasing strategy, which is characterised by a pure market perspective; and (2) a relational purchasing strategy, which involves hybrid arrangements between firms. A relational purchasing strategy usually involves significant supplier-specific investments, which can include investments in physical assets, such as tools, computer systems and machinery acquired specifically to satisfy the demands of a particular buyer as well as investments in human assets, such as specific skills, knowledge and experience of individuals in the firm (Agndal & Nilsson, 2010). Therefore, it can be argued that the notion of the employment practices across the supply chain may be crucial when inter-firm relationships involve a relational purchasing strategy. Agndal & Nilsson (2010) further argue that a relational strategy can help to deal with high levels of uncertainty. Uncertainties can arise when a product is critical to the buyer and there are high levels of dependence, with few alternative suppliers and high switching costs. Unknown suppliers can also lead to behavioural uncertainties, thus the purchase strategy for critical products involves repeat purchases, often with the same favoured suppliers. Correspondingly, Kumra, Agndal, & Nilsson (2012) argue that long-term relationships are usually formed when the product is critical to the buyer. For example, when delivery and quality issues have significant consequences to the buyer. In other words, when the product is associated with significant behavioural and environmental uncertainties. A transactional purchasing strategy, on the other hand, is associated with market procurement, where the buyer looks for alternative suppliers and selects the lowest bidder (Agndal & Nilsson, 2010;

Cullen & Meira, 2010). Levels of specificity and uncertainties in transactional purchasing strategy are low, and repeat purchases do not reduce behavioural uncertainty sufficiently to offset the potential benefits of market procurement. Therefore, transactional purchasing arrangements can be described as arm's length relationships, where the buyer and supplier take on "adversarial" roles.

Another important aspect of inter-firm relationships is the level of supply chain maturity, which identifies different types of relationship, starting with autonomous firms, and then moving into different stages of cooperation (Cullen & Meira, 2010). Cullen & Meira (2010) used the supply chain maturity model to identify the different management accounting techniques used in each stage of the development of inter-firm relationships, specifically: (1) arm's length relationships; (2) serial dependence; (3) reciprocal dependence and (4) mutual dependence. The arm's length stage reflects adversarial relationships between buyers and suppliers, where the focus tends to be on low cost, and the techniques that are often used are tendering and 'one off' supplies. During the serial dependence stage, organisations share a limited amount of accounting information in order to improve information exchange and production flexibility. The development of the relationship to the reciprocal dependence stage involves more information sharing and more collaborative initiatives. In mutual dependence relationships, firms fully engage in open book accounting, aiming to achieve mutual benefits from cost reduction and improved quality. A review of the literature on open book accounting is given later in this chapter.

2.1.2.2 Partner selection

Partner selection focuses on reducing control problems by finding a reliable and qualified supplier (Xie, Liang, & Zhou, 2016; Dekker, 2008). Although some authors argue that selecting an appropriate partner reduces the need for formal governance (Buskens, Batenburg, & Weesie, 2003), others argue that partner selection and formal governance are complementary to each other rather than substitutes (Dekker, 2008). Early literature on partner selection suggests that the choice of suppliers is mainly driven by attributes related to the products, such as quality and cost, and to supplier service such as delivery performance and flexibility

(Verma & Pullman, 1998). Later, many authors (Xie, Liang, & Zhou, 2016; Dekker & Van den Abbeele, 2010; Dekker, 2008; Buskens, Batenburg, & Weesie, 2003) have explored other relevant criteria in the supplier selection process. Other relevant supplier selection criteria, which are arguably aimed at reducing the uncertainties that arise in the transaction, include social relationships between the buyer and the supplier, preferences for known partners, familiarity and trust (Xie, Liang, & Zhou, 2016; Dekker & Van den Abbeele, 2010; Dekker, 2008; Buskens, Batenburg, & Weesie, 2003). For example, Buskens, Batenburg, & Weesie (2003) argue that after controlling for standard decision criteria such as price, quality, and service, an important factor that influences the supplier selection process is the social embeddedness between the buyer and the supplier, which the authors define as the buyer's own past experience with the supplier and the information held by the buyer about the supplier's past experience with other partners. Buskens, Batenburg, & Weesie (2003) further argue that social embeddedness is particularly relevant when the product supplied is critical to the buyer.

Xie, Liang, & Zhou (2016) suggest that social relationships between buyers and suppliers play a key role on partner selection, arguing that economic transactions are "embedded in social relationships" (Xie, Liang, & Zhou, 2016, p. 157). Xie, Liang, & Zhou (2016) further argue that selecting suppliers from prior social relationships enables the buyer to collect important information such as the suppliers' capabilities, trustworthiness, and reliability, and that previous ties also play a role in reducing potential opportunisms (Xie, Liang, & Zhou, 2016, p. 157). Thus, it could be argued that these studies suggest that partner selection may indeed be used as a control mechanism for reducing uncertainties in inter-firm relationships.

2.1.2.3 Informal control mechanisms

Inter-firm governance may comprise not only formal controls but also informal mechanisms. Informal mechanisms may be used both during the partner selection and partner control phases in an inter-firm relationship (Xie, Liang, & Zhou, 2016). For example, informal mechanisms for selecting suppliers include social selection, which can be generally defined as partner selection based on social relationships (Xie, Liang, & Zhou, 2016). Alternative controls may involve experiences and trust

from prior ties with the exchange partner (Dekker, 2008). Informal controls are arguably particularly relevant for managing inter-firm relationships within developing countries. For example, many researchers have argued that informal governance prevailed in China (Li et al., 2008; Zhou et al., 2003). In a more recent study Xie, Liang, & Zhou (2016) found that China has been adopting both formal and informal controls.

An important area of debate is around whether formal and informal controls work as substitutes or complements (Xie, Liang, & Zhou, 2016). Trust is generally considered a significant factor in reducing uncertainty in inter-firm transactions (Agndal & Nilsson, 2010; Vosselman & Meer-Kooistra, 2009; Caglio & Ditillo, 2008; Langfield-Smith & Smith, 2003) and arguably reducing the need for formal controls. Xie, Liang, & Zhou (2016) found that in China using both formal and informal controls is the preferable approach for managing inter-firm relationships. This study explores the extent of use of informal controls to manage inter-firm relationships in a focal organisation in Brazil and across its supply chain.

2.2 Make-or-buy decisions

Make-or-buy decisions refer to the decision-making process for determining whether to produce a material (or perform an activity) internally or to purchase the material from (or contract an activity out to) external suppliers (Meira et al., 2010; Du, Lu, & Tao, 2009). Outsourcing refers the process in which a firm contracts outside companies to perform activities that have traditionally been undertaken internally (Espino-Rodríguez, Chun-Lai, & Gil-Padilla, 2017; Meira et al., 2010; Du, Lu, & Tao, 2009; Lamminmaki, 2008). It has been argued that make-or-buy are strategic decisions, which allow firms to identify their core and non-core competencies in order to determine which functions to outsource and which to keep in-house (Meira et al., 2010).

Some authors argue that outsourcing and subcontracting are merely used in the search for cheap labour (e.g. Pearson, 2007). Others argue that the main motivation for firms engaging in outsourcing is that this strategy allows firms to focus on their core competence and gain access to specialised services (Lamminmaki, 2008; Sartorius & Kirsten, 2005; Langfield-Smith & Smith, 2003). For example, Langfield-

Smith & Smith (2003) conducted a case study at Central Energy, an Australian company in the electricity industry, which outsourced their Information Technology and Telecommunications (IT&T) function motivated by increased competition following the privatisation of the industry. The company determined that they needed to focus on their core competence and seek a partner whose core business was IT.

Make-or-buy decisions are the first step in the initiation of an inter-firm relationship (Dekker, 2003; van der Meer-Kooistra & Vosselman, 2000; Seal et al., 1999). Accordingly, it has been argued that make-or-buy decisions should include considerations of the coordination and control costs associated to the inter-firm relationship (Espino-Rodríguez, Chun-Lai, & Gil-Padilla, 2017; Meira et al., 2010; van der Meer-Kooistra & Vosselman, 2000), and transaction characteristics such as asset specificity (Espino-Rodríguez, Chun-Lai, & Gil-Padilla, 2017; Lamminmaki, 2008). Lamminmaki (2008) argue that when the level of asset specificity are high, the degree of outsourcing is lower. Other reasons for outsourcing may include economies of scale, capacity pooling, environment cost and government's regulation (Meng et al., 2018). For example, Meng et al. (2018) found that a government's carbon tax affected the make-or-buy decision of manufacturers in China.

Literature on make-or-buy decisions tend to revolve around outsourcing. In more recent years, some researchers have been studying the process of insourcing (Hartman, Ogden, & Hazen, 2017; Sundquist, Hulthén, & Gadde, 2015; Drauz, 2014). However, this area of research tends to focus on the process of re-insourcing. In other words, insourcing activities that had been previously outsourced (Hartman, Ogden, & Hazen, 2017; Sundquist, Hulthén, & Gadde, 2015; Drauz, 2014). Studies on first time insourcing seem to have been neglected so far.

Hartman, Ogden, & Hazen (2017) conducted a study exploring the reasons for firms to engage in (re)insourcing drawing on the literature of outsourcing, given the limited literature on (re)insourcing to date. Hartman, Ogden, & Hazen (2017) found that the reasons for insourcing are generally the same as the reasons for outsourcing, such as to cost reduction, quality improvement, and increased

productivity and performance. The difference appears to lie on the fact that while outsourcing decisions are often a proactive strategic decision, (re)insourcing are often a reaction to a specific, external trigger event, such as cost increase imposed by the supplier (Hartman, Ogden, & Hazen, 2017). Drauz (2014) argue that underutilized capacities are one of the main reasons for re-insourcing.

Another area of research in the literature of make-or-buy decisions relates to bi-sourcing (Du, Lu, & Tao, 2009). Bi-sourcing is a strategy that contains both outsourcing and insourcing (Du, Lu, & Tao, 2009). In other words, it is a strategy whereby firms opt to acquire the same material by both purchasing from external suppliers (outsourcing) and by producing in-house (insourcing). For example, Mattel, a toy manufacturer, adopted this strategy for the production of one of its moulds, which were both produced at their own facility in Malaysia and outsourced to firms in Hong Kong (Du, Lu, & Tao, 2009). Another example is the American conglomerate DuPont, which combines several service providers with their own internal resources to perform their Information Technology (IT) functions (Du, Lu, & Tao, 2009). An organisation may also engage in bi-sourcing in order to learn best practices from an external supplier to be adopted in the internal production, and/or due to in-house production capacity constraints (Du, Lu, & Tao, 2009). Du, Lu, & Tao (2009) further argue that firms engaging in bi-sourcing in the global economy tend to use this strategy in order to use the payoff from both high waged developed countries and low-waged developing (or less developed) countries. Du, Lu, & Tao (2009) further suggest that firms may also choose to engage in bi-sourcing when the manufacturer faces more problems of unionisation when compared to the external supplier (thereby reducing risks of shortage in the event of strikes).

Previous studies have studied the impact of outsourcing on workers (Geishecker, 2006, 2008; Langfield-Smith & Smith, 2003). For example, in the study conducted by Langfield-Smith & Smith (2003) in which a company in the electricity industry outsourced its Information Technology and Telecommunications (IT&T) function, amongst the criteria for the choice of the supplier was the way in which the staff transition issues would be treated. The IT&T members of staff were allowed to choose to take voluntary redundancy, to be transferred to the supplier or to continue working for the company in a different department. According to a

manager of Central Energy, the benefits of the new partnership included access to the supplier's expertise and enhanced services, increased cost consciousness within the organisation and a greater discipline in IT&T planning. The new relationship took an open book approach to the sharing of information, and a committee consisting of managers from both firms developed performance indicators to support areas such as growth, delivery time and cost. Langfield-Smith & Smith (2003) study shows the potential for combining a focus on competitiveness while also considering social issues.

2.3 Performance measurement across supply chains and the Balanced Scorecard

Given the strategic dimension of supply chains, it is crucial to measure their performance (Estampe et al., 2013). A performance measurement system that is often used by management accountants is the Balanced Scorecard (BSC). The BSC was developed by Kaplan & Norton (1992) as a performance measurement system which combines financial and non-financial indicators. The original BSC framework introduced by Kaplan & Norton (1992) complemented traditional financial performance measurement through the addition of three other perspectives: customer; business processes; and learning and growth (or continuous improvement). These additional perspectives allow firms to evaluate if positive performance in one area, such as profits, is being achieved at the expense of another, such as low product quality, which could lead to losses in the long term. Later studies also defined the BSC as a system to implement strategy, as it allows firms to break their strategy into achievable performance indicators (Hoque, 2014; Fernandes, Raja, & Whalley, 2006; Braam & Nijssen, 2004; Kaplan & Norton, 1996). Many authors argue that the BSC assumption that customer and shareholder values are linked by cause and effect do not necessarily exist. For example, Norreklit (2000) argues that companies cannot prove that better non-financial performance, such as customer satisfaction, leads to improved financial result, as customers may be satisfied but may yet not be profitable.

Despite the criticisms, there are many studies providing evidence of organisations using the BSC as a tool to implement strategy and to measure performance in the organisation (Hoque, 2014). For example, Kaplan & Norton (2008) presented a case

of success on the use of BSC by the UK based retailer Tesco, who used BSC to disseminate its strategy throughout the organisation. The retailer went beyond the original four perspectives of the BSC and includes Community as the fifth perspective, aimed to achieve its goals related to social issues in the communities within which they operate (Kaplan & Norton, 2008). Although their BSC does not include a specific perspective for controlling the achievement of goals related to 'equality' per se, the organisation recognises the need to embrace diversity in terms of factors such as age, disability, gender, race and sexual orientation (Kaplan & Norton, 2008). The firm suggests that in order to protect their reputation and brand in terms of ethical, legal or moral issues that could lead to a loss of trust and of their ability to recruit and retain good people, it makes use of mechanisms such as a code of business conduct, which guides behaviour in dealing with customers, employees and suppliers; supplier auditing and product inspection programmes, aimed at minimising risks related to labour standards and product integrity; and governance committees, including Social Responsibility.

Many researchers have studied the reasons for failure in the implementation of BSC. For example, Norreklit (2000) argues that for the BSC to be successful, the employees must be committed. Fernandes, Raja, & Whalley (2006) argue that organisations implementing the BSC face more behavioural challenges than technical ones. Therefore, the involvement of and communication to employees seems to be key successful implementation of the BSC in an organisation.

2.4 Cost management and Activity-Based Costing beyond the organisational boundaries

Activity-Based Costing (ABC) was first introduced by Cooper & Kaplan (1988) as a cost system that measures more accurate product costs and enables a better understanding of product profitability. ABC proposes the identification of the costs incurred in all activities within the company, and the allocation of the overhead costs to product costs accordingly. In other words, focusing on the cost of all the activities necessary to produce a product, including support activities (Cooper & Kaplan, 1988). ABC is grounded on Activity-Based management, which is based on the idea that activities incur costs and, therefore, in order to manage costs, it is

necessary to manage activities (Coad & Cullen, 2006). Activity-Based Management encompasses activity analysis, analysis of business processes and analysis of value and non-value-added activities (Soin, Seal, & Cullen, 2002). Therefore, ABC is an approach to eliminate non-value-added activities.

Some studies show that the implementation of ABC allows the elimination of non-value-added activities beyond the organisational boundaries. For example, Coad & Cullen (2006) conducted a research in School Trends, a UK manufacturer of school wear, and found that the manufacturer identified that their supplier performed a process of folding and packing garments which, when delivered to their plant, were unpacked and unfolded. Eliminating this process at the supplier-end resulted in cost savings for both parts (Coad and Cullen, 2006).

2.5 Customer accounting

Customer accounting can be broadly defined as a firm's internal practices used to measure and manage their customer relationships (Caker & Strömsten, 2010). Customer accounting plays a role in providing information to inform firms' decisions in relation to, for example, which customers to prioritise (Kraus, Håkansson, & Lind, 2015; Lind & Strömsten, 2006). In other words, customer accounting is a means for organisations to focus on particular customers or customer segments, rather than focusing on customers in general (Boyce, 2000). Bahri-Ammari & Soliman (2016) argue that customer relationship management is an important means for developing a close and long-term relationship with customers. Therefore, customer accounting has the potential to shape inter-firm relationships across supply chains.

Customer accounting involves the use of accounting techniques to measure customers' performance in terms of profit contribution (Lind & Strömsten, 2006; Guilding & McManus, 2002). Therefore, customer accounting shifts the focus on product profitability to customer profitability (Caker & Strömsten, 2010), increasing the scope of management accounting to include a customer focus (Cäker, 2007). This implies that products may be sold to a customer at a loss as long as the customer is profitable to the organisation (Caker & Strömsten, 2010). Therefore,

customer accounting is arguably a key determinant of the relationship arrangement between an organisation and its customers. In other words, customer accounting may be an antecedent for building long-term and collaborative relationships.

Customer accounting techniques are generally based on the firm's technical and organisational interface with its customers (Lind & Strömsten, 2006). These include customer profitability analysis, customer segment profitability analysis, lifetime customer profitability analysis, and customer valuation analysis (Lind & Strömsten, 2006). Customer profitability analysis is the most commonly adopted by organisations (Fish et al., 2017; Guilding & McManus, 2002). However, it seems that implementation of customer accounting by firms has yet to mature. For example, in a study examining the implementation of customer accounting in a case study organisation, Fish et al. (2017) found that despite the implementation of customer accounting techniques, managers tended to rely on their intuition in relation to customer profitability analysis rather than on data.

Little attention has been given to customer accounting in management accounting research (Fish et al., 2017; Caker & Strömsten, 2010; McManus & Guilding, 2008). Moreover, existing literature on customer accounting tends to focus on what techniques to use to generate customer accounting information; and research on how to use customer accounting information and on the effects of using these information are scarce (Caker & Strömsten, 2010). This study contributes to this gap in the literature, by exploring how the customer accounting practices within the focal organisation shaped the inter-firm relationships across its supply chain.

2.6 Open Book Accounting

Open book accounting (OBA) can be generally defined as the disclosure of management accounting information beyond organisational boundaries (Caglio, 2017; Alenius, Lind, & Strömsten, 2015; Caglio & Ditillo, 2012; Windolph & Moeller, 2012; Agndal & Nilsson, 2010; Kajuter & Kulmala, 2005, 2010). Literature on OBA is still developing, and a consistent definition of what characterises OBA practice has not yet emerged. While some authors define OBA as the disclosure of cost information between buyers and suppliers (Lamming et al., 2005; Lamming, 1996),

others define OBA more widely as the exchange of both financial and non-financial information in inter-organisational settings (Caglio, 2017; Ellström & Hoshi Larsson, 2017; Alenius, Lind, & Strömsten, 2015; Caglio & Ditillo, 2012; Windolph & Moeller, 2012; Agndal & Nilsson, 2010; Kajuter & Kulmala, 2005, 2010). For example, Windolph & Moeller (2012) argue that OBA can be defined as the exchange of cost information as well as 'cost-relevant' information such as sales forecasts and technical and operating data. This study takes the perspective of the latter. In other words, this research uses the term OBA to refer to the exchange of both financial and non-financial information across the supply chain.

The debate around what constitutes an OBA practice includes other considerations such as the confidentiality of the information disclosed and the frequency of the exchange. For example, some authors argue that for the exchange of information between buyers and suppliers to be considered as an OBA practice, the exchange must be regular and systematic (Caglio, 2017; Möller, Windolph, & Isbruch, 2011). In terms of confidentiality, some authors argue that the exchange of information can only be characterised as an OBA practice if the data disclosed is confidential, that is, information that would have otherwise been kept secret (Caglio, 2017; Caglio & Ditillo, 2012). This study takes a broad perspective of what constitutes OBA practices. In other words, this study refers to OBA as the exchange of information between buyers and suppliers across the supply chain irrespective of the type and confidentiality of information disclosed; the frequency of the information exchange (e.g. regular or occasional); the extent of disclosure (e.g. data fully or partially disclosed); the form in which the information disclosure took place (e.g. formal and/or informal disclosure); and the direction of information disclosure (e.g. one-sided or two-sided). Given the limited research on the use of OBA in Brazil to date, taking a broad perspective of OBA enables this study to explore the OBA practices in the case study supply chain and within the Brazilian context. Moreover, given this study's aim of exploring the potential of SCA to promote social upgrading, in addition to financial information such as accounting and costs, and non-financial information such as technical and procedural, this study also explores the extent to which firms exchange information about managing social issues.

In terms of industry sector, previous studies on OBA practice have so far focused on industry sectors which are more likely to adopt new accounting methods and implement sophisticated cost accounting systems, such as the automotive industry (Windolph & Moeller, 2012; Möller, Windolph, & Isbruch, 2011; Agndal & Nilsson, 2010; Kajuter & Kulmala, 2005; Cooper & Slagmulder, 2004), the information technology and telecommunications industry (Agndal & Nilsson, 2010; Dekker, 2008; Mouritsen, Hansen, & Hansen, 2001), and the mechanical engineering industry (Kajuter & Kulmala, 2005; Mouritsen, Hansen, & Hansen, 2001; Seal et al., 1999). Furthermore, empirical studies on OBA practice so far have largely focused in developed countries, such as Japan (Cooper & Slagmulder, 2004), the UK (Seal et al., 1999), and northern European countries such as Germany (Windolph & Moeller, 2012; Möller, Windolph, & Isbruch, 2011; Kajuter & Kulmala, 2005), Denmark (Mouritsen, Hansen, & Hansen, 2001), Sweden (Agndal & Nilsson, 2010), and Finland (Kajuter & Kulmala, 2005). Empirical evidence addressing the use of OBA in emerging economies to date is limited and, where existent, they tend to focus on those industries which are more likely to adopt sophisticated accounting systems, such the information technology services industry and mechanical engineering industry (Kumra, Agndal, & Nilsson, 2012). This research addresses this gap in the literature, by exploring the extent of and potential for OBA use in emerging economies and in less advanced industry sectors, through a case study in the textiles industry in Brazil. By doing so, this study also contributes to the still developing literature of OBA. The next sub-sections offer a review of studies on OBA practices to date.

2.6.1 OBA implementation: achievements and impediments

One of the primary objectives for firms to engage in OBA practices is its potential for identifying cost reduction and process improvement opportunities (Möller, Windolph, & Isbruch, 2011; Agndal & Nilsson, 2010; Cullen & Meira, 2010; Cooper & Slagmulder, 2004). It has been argued that the identification of cost reduction opportunities requires cost transparency between buyers and suppliers (Kajuter & Kulmala, 2005; Cooper & Slagmulder, 2004; Kulmala, Paranko, & Uusi-Rauva, 2002; Mouritsen, Hansen, & Hansen, 2001). OBA can reveal cost reduction opportunities that can be achieved by changing the buyers' own processes and/or requirements

(Coad & Cullen, 2006; Seal et al., 1999), which can only be identified through cost transparency. In other words, some activities which generate cost might not generate value and therefore may be dispensable. For example, Coad & Cullen (2006) conducted a research within a UK manufacturer of school wear whereby the buyer identified that the supplier performed a process of folding and packing garments which, when delivered to the buyer's plant, were unpacked and unfolded. Eliminating this process at the supplier-end resulted in cost savings for both parties (Coad & Cullen, 2006). In terms of process improvement, OBA reveals opportunities by promoting joint efforts of more than one organisation (Möller, Windolph, & Isbruch, 2011). For example, Cullen & Meira (2010) argue that companies in mature relationships open their books to each other in order to facilitate the identification of areas to be improved. Moreover, OBA reveals cost reduction and process improvement opportunities through sharing best practices across the supply chain (Dekker, 2003).

Other objectives of OBA include its potential for enabling interorganizational learning (Ellström & Hoshi Larsson, 2017; Kulmala, Paranko, & Uusi-Rauva, 2002) and the identification of potential synergies (Kajuter & Kulmala, 2005) which, in turn, results in cost efficiency of entire supply chains. Kajuter & Kulmala (2005) conducted a case study in a German car manufacturing network and found that the comprehensive disclosure of cost information, combined with the investigation of the costs drivers, resulted in the identification of cost savings opportunities for all partners in the network. OBA has also been put forward as a means for managing interdependencies in inter-firm relationships (Alenius, Lind, & Strömsten, 2015; Agndal & Nilsson, 2010; Kajuter & Kulmala, 2010). For example, Alenius, Lind, & Strömsten (2015) found that OBA was used to influence indirect relationships, arguing that OBA plays a key role in both forming and managing embedded relationships between buyers and supplier.

Many studies argue that OBA also plays a role for building trust in inter-firm relationships (Agndal & Nilsson, 2010; Kajuter & Kulmala, 2005; Seal et al., 1999) and, in turn, OBA plays a role in reducing uncertainties associated to inter-firm transactions (Agndal & Nilsson, 2010). For example, Seal et al. (1999) showed that sharing costs played a key role in negotiations between buyers and suppliers, as

both sides understood and respected each other's financial and commercial constraints. Trust is generally considered a significant factor in managing uncertainty in inter-firm transactions (Agndal & Nilsson, 2010; Vosselman & Meer-Kooistra, 2009; Caglio & Ditillo, 2008; Langfield-Smith & Smith, 2003). Therefore, by promoting trust between buyers and suppliers, OBA also enables the reduction of uncertainty in inter-firm relationships.

In fact, trust has been argued to be both a result of OBA practices and a factor that influences OBA implementation (Suomala et al., 2010; Mouritsen & Thrane, 2006; Kajuter & Kulmala, 2005; Cooper & Slagmulder, 2004; Dekker, 2003, 2004). In an empirical work exploring the potential achievements and reasons for failure of OBA implementation, Kajuter & Kulmala (2005) found that lack of trust was one of the main obstacles impeding firms from sharing data. Other reasons for failure of OBA implementation included scepticism about sharing accounting information and fear of opportunistic behaviour from their counterpart (Kajuter & Kulmala, 2005). Moreover, Kajuter & Kulmala (2005) found that OBA implementation projects failed in circumstances in which the buyer did not offer extra benefits to the suppliers, and the lack of agreement on how OBA should be implemented. Indeed, many studies suggest that the sharing of information is mostly one-sided, where a strong customer requires their suppliers to disclose information, allowing the customer to get involved in improving the supplier's costs (Windolph & Moeller, 2012; Cullen & Meira, 2010; Lamming et al., 2005). However, studies show that suppliers will only share accounting information with buyers if they trust that the data will not be used to their disadvantage (Agndal & Nilsson, 2010; Kajuter & Kulmala, 2005; Dekker, 2004). Therefore, it could be argued that trust can be both a result of OBA practices and an enabler of OBA implementation.

Another impediment of OBA practice is the lack of sound cost accounting systems and reliable cost data (Caglio, 2017; Kajuter & Kulmala, 2005, 2010; Seal et al., 1999). For example, in a cross-case analysis in three Finnish manufacturing networks, Kajuter & Kulmala (2005) found that the inability of suppliers to produce accurate cost information combined with the lack of support from the buyer for developing the necessary accounting systems were among the main reasons for failure in OBA implementation. Caglio (2017) conducted quantitative analyses on OBA practices

and, using survey data from a sample of European companies, the author found a positive association between OBA practice and the degree of advancement of a firm's cost accounting system. Caglio (2017) argues that, alongside a firm's willingness to work with their partners in the long-term, a certain level of sophistication of the internal accounting system is prerequisite for the implementation of OBA practices. Arguably relatedly, it has been argued that firm size is another factor that influences the use of OBA (Kajuter & Kulmala, 2005). The reasoning being that large companies tend to use cost accounting systems that are more advanced than those of small companies, and that larger companies tend to be more willing to adopt new accounting techniques, given their greater ability to commit resources on their management accounting and control systems (Kajuter & Kulmala, 2005).

2.6.2 Factors that shape OBA practice

Agndal & Nilsson (2010) argue that OBA can be linked to the purchasing strategy involved in the inter-firm relationship. The authors argue that within a transactional purchasing strategy, where levels of asset specificity and uncertainty are low, cost data is primarily used to reduce purchase price, thus data disclosure is limited. Within a relational purchasing strategy, levels of asset specificity and uncertainty are usually high, and data disclosure is broadly used in order to support cost reduction through joint efforts (Agndal & Nilsson, 2010).

Cullen & Meira (2010) suggest that the extent to which firms engage in OBA depends on the level of supply chain maturity. The authors identified the different management accounting techniques used in each stage of the development of inter-firm relationships, namely: (1) arm's length relationships; (2) serial dependence; (3) reciprocal dependence and (4) mutual dependence. While the arm's length stage reflects adversarial relationships between buyers and suppliers, where the focus tends to be on low cost, and the techniques that are often used are tendering and 'one off' supplies, during the serial dependence stage organisations share a limited amount of accounting information in order to improve information exchange and production flexibility. As the relationship develops into the reciprocal and mutual dependence stages, the scope for OBA increases and two-way information disclosure is observed. The authors argue that the

development of the relationship to the reciprocal dependence stage involves more information sharing and more collaborative initiatives, and in mutual dependence relationships, firms fully engage in open book accounting, aiming to achieve mutual benefits from cost reduction and improved quality.

Kajuter & Kulmala (2005) propose three types of factors that promote the disclosure of cost data in networks: exogenous environmental factors, endogenous firm-specific factors, and network-specific factors. Exogenous environmental factors include economic trend and degree of competition. Network-specific factors include the type of network, type of product, infrastructure and social nature of network. Lastly, endogenous firm-specific factors include firm size, capability of cost accounting systems, competitive policy and long-term view.

Building on the model developed by Kajuter & Kulmala (2005), Caglio (2017) propose a framework for identifying the antecedents of OBA which encompasses: environmental factors; relational factors; and technical and procedural factors. In the author's framework, environmental factors include both cost-based competition (the intensity of the market pressure to reduce costs) and the overall economic trend of the markets and/or countries in which the companies operate. Relational factors include the firms' long-term orientation as well as the firm's propensity to collaborate, defined as its attitude towards achieving mutual benefits with its counterparts. Finally, technical and procedural factors include the existence of an advanced cost accounting system and of shared infrastructures for the OBA process. Caglio (2017) tested her framework by surveying a sample of European companies. Her empirical results found only two positive associations between the use of OBA in the firms surveyed and the influencing factors of OBA practice predicted in her model. These factors were long-term orientation (a relational factor) and the presence of a sophisticated management accounting systems (a technical and procedural factor).

While some empirical studies did not find an association between the environmental factors and the use of OBA (Caglio, 2017), previous studies argue otherwise. For example, Cooper and Slagmulder (2004) argued that when firms face high cost pressure the extent of OBA use is larger. Furthermore, as explained above,

Caglio (2017) tested her model using a sample of European companies. Therefore, the environmental factors predicted in Caglio's (2017) model and in previous studies could be key for firms operating in different environments that have not been studied so far, particularly the textiles industry in Brazil which faced fierce competition both in terms of quality and costs.

2.7 SCA for promoting social and economic upgrading

Economic upgrading can be defined as the move to higher value activities (Gereffi & Lee, 2016; Rossi, 2013; Barrientos, Gereffi & Rossi, 2011). Economic upgrading can refer to process upgrading (e.g. the move to more efficient production processes); product upgrading (e.g. change in type of product); functional upgrading (e.g. change in the mix of activities performed by the firm); and chain upgrading (e.g. move to more technologically advanced chains) (Rossi, 2013). It has been argued that SCA promotes processes improvements, value creation and increased competitiveness (Möller, Windolph, & Isbruch, 2011; Agndal & Nilsson, 2009; Coad & Cullen, 2006; Dekker, 2003), thus SCA can promote economic upgrading, particularly in terms of process upgrading.

Social upgrading can be defined as the process of improvements in the rights and entitlements of workers (Gereffi & Lee, 2016; Rossi, 2013; Barrientos, Gereffi & Rossi, 2011). It has been argued that economic upgrading does not necessarily lead to social upgrading (Barrientos, Gereffi, & Rossi, 2011; Hale & Wills, 2007; Barrientos & Kritzing, 2004). For example, Hale & Wills (2007) argue that the growing competition between retailers for cheap and flexible production combined with the development of new technology leads to a shift in power from supplier to buyer and in turn degrades work conditions in the subcontracted firms. Relatedly, some authors argue that the work conditions are likely to be better in the factory of preferred suppliers that are regularly audited than in subcontracted firms which are not closely monitored (Barrientos, Gereffi, & Rossi, 2011; Locke et al., 2007). Therefore, there seems to be a potential for SCA to promote social upgrading across supply chains. This study contributes to this debate by exploring the potential of SCA to promote both economic and social upgrading.

Despite the limited attention given to social issues in accounting research to date (Yawar & Seuring, 2017; Hopper & Bui, 2016), in a recently conducted literature review exploring the intersection of the literatures of Corporate Social Responsibility and Supply Chain Management, Yawar & Seuring (2017) found that the management of social issues in supply chains has been gaining importance among researchers. However, previous research suggest that organisations are generally more concerned with managing social issues in supply chains that have an immediate effect in their performance, ignoring issues that can have long term implications for the society (Yawar & Seuring, 2017). By examining the impact of the SCA practices used across the case study supply chain on the broader social context in which the organisations operate and exploring the potential of these practices to promote social upgrading, this study also contributes to accounting research that addresses social issues.

Besides the moral case, managing social issues across supply chains may arguably play an important role in dealing with issues of uncertainty within inter-firm relationships. For example, where an exchange transaction involves high levels of human asset specificities (Dekker, Sakaguchi, & Kawai, 2013; Agndal & Nilsson, 2010; Dekker, 2008), disclosure of information related to employment practices such as training and employment security may be essential to increase reliability across the supply chain and ensure availability of the specific skills required for making the products. Inter-firm transactions uncertainties may involve behavioural uncertainty, which is concerned with whether or not suppliers will act responsibly (Dekker, Sakaguchi, & Kawai, 2013; Agndal & Nilsson, 2010). Irresponsible employment practices throughout the supply chain may result in suppliers or subcontractors shutting down and, where there are few alternative suppliers, to uncertainty of supply in the future. Moreover, concerns about reputation should arguably drive organisations to take responsibility for social practices across their entire supply chain.

2.7.1 Developing countries

Given this study's aim of contributing to calls for accounting research as a mechanism for "development and developing countries" (Hopper & Bui, 2016, p. 10), this section offers the definition of developing countries adopted in this study.

There is not an established convention for the designation of developing countries, and the classification of countries by their level of development varies according to indices and/or sources used. This section does not seek to provide a definite designation of what constitutes a developing country; but rather to situate this study's position.

The World Bank (WB) classifies countries by level of development into four categories based on their Gross National Income (GNI): high income countries, upper middle-income countries, lower middle-income countries and low-income countries (United Nations, 2018; Hopper, Lassou, & Soobaroyen, 2017). Another reputable country classification is the one published by the United Nations Department of Economic and Social Affairs (UN/DESA) in their annual World Economic Situation and Prospects (WESP) report, whereby countries are classified into three broad categories based on their economic conditions: developed economies, economies in transition and developing economies (United Nations, 2018). Under the WB's countries classification, Brazil has been categorised as an upper middle-income country (based on GNI per capita in June 2017) (United Nations, 2018). On the other hand, under the WESP 2018 report (which is based on a set of aggregate data for a period of 15 years), Brazil has been categorised as a developing country. UN's WESP report also uses the term 'emerging economies' to refer to middle-income developing countries and economies in transition which are integrated into global financial systems, such as the International Monetary Fund (IMF). Therefore, although the term is not a formal definition, Brazil can also be referred to as an emerging economy. This study mainly uses UN's classification of countries into developed economies, economies in transition and developing economies. Therefore, this study refers to Brazil as a developing country; and, at times, this study also refers to Brazil as an emerging economy.

2.7.2 Social issues in supply chains

Given that this study examines the potential impact of SCA on the broader social and economic context in which an organisation operates, this section offers a brief overview of the social issues that organisations may encounter across supply chains. It is important to note that the focus of this study is to explore the potential of SCA to promote social upgrading, but not to identify the social issues encountered in

supply chains as such. In other words, this study does not provide a comprehensive account of the social issues faced by organisations in the case study supply chain, but rather this study provides an examination of the impact of SCA on those social issues that emerged from the fieldwork.

A specific definition of what constitutes social issues in supply chains may vary depending on many aspects, including the domain of research and the context in which firms operate. Klassen & Vereecke (2012) proposed that social issues in supply chains should include aspects of organisations' operations that affect human safety, welfare and community development. Yawar & Seuring (2017) have recently conducted a comprehensive literature review exploring the intersection of the literatures of Corporate Social Responsibility (CSR) and Supply Chain Management (SCM), and the authors found that the main social issues in supply chains discussed in the literatures of CSR and SCM encompass: labour conditions, health and safety, human rights, child labour, gender, disabled and marginalised people inclusion, and minority development. In their work, Yawar & Seuring (2017) have also identified some of the 'responsible supply chain actions' taken by firms to managing those issues. Yawar & Seuring (2017, p. 637) note that despite the growing attention given to social issues in supply chains there is a need for further research exploring ways of managing social issues in supply chains by, for example, "building the capacities of supply chain partners through technical and financial investments taken up by the buying firms". By exploring the potential of SCA to promote social upgrading, this study also contributes to the debate raised by Yawar & Seuring's (2017) work by identifying further 'responsible supply chain actions' for managing social issues in supply chains.

Labour conditions followed by health and safety were found to be the most commonly debated social issues in supply chains in previous literature of CSR and SCM (Yawar & Seuring, 2017). For labour conditions, Yawar & Seuring (2017) use a definition that includes employees' wages, hours of work, the right to form unions, and exploitation. In relation to health and safety, Yawar & Seuring (2017) refer to hazardous working conditions, and physical and mental health issues that are directly related to safety and hygiene conditions at the workplace. The authors argue that the focus in these two particular social issues in supply chains may be

explained by the belief that ensuring labour rights and providing safe conditions and a healthy workplace can help firms to attract and retain skilled labour in the long run which, in turn, may influence firms' reputation and economic performance (Yawar & Seuring, 2017). In other words, besides the moral reasons for firms to tackle these social issues in supply chains, there seems to be a business case for managing labour conditions and health and safety across a firm's supply chain. Human rights were found to be the next most common social issue in supply chains referred to in the previous literature Yawar & Seuring (2017). However, Yawar & Seuring (2017, p. 631) observed that rather than using the term "human rights" most publications referred to international standards such as fair trade, ethical trade and the "social accountability 8000 standard" (Social Accountability International, 2014).

Child labour was discussed in a large number of papers in Yawar & Seuring's (2017) review, representing 51% of their sample. Based on the ILO definitions, the authors refer to child labour as "work by children under the age of 15 that prevents school attendance and work by children under the age of 18 that is hazardous to the physical or mental health of the child" (Yawar & Seuring, 2017, p. 625). The authors noted that there was an increase in the number of codes of conduct addressing child labour over the years, suggesting an increased awareness among firms. However, Yawar & Seuring (2017) called for further research addressing these issues, reasoning that there were few recent studies on the topic (Yawar & Seuring, 2017). By exploring the impact of SCA on these issues and exploring the potential of SCA to promote social upgrading, this study also contributes to this call for research.

Yawar & Seuring (2017) also identified that a large number of papers discussed gender issues (39% of their sample). Based on ILO definitions, the authors define gender equality as "the equal treatment of women and transgender, catering to their special needs and assigning equal rights at the work place" (Yawar & Seuring, 2017, p. 625). Many authors argue that women are more vulnerable to abuse in terms of levels of pay and insecurity of employment because female workers are more concentrated in informal and unskilled labour (Barrientos, Gereffi, & Rossi, 2011; Pearson, 2007; Barrientos, Dolan, & Tallontire, 2003; Newsome, 2003). In

addition to experiencing lower employment security and earning lower wages, other women's needs are frequently neglected, such as health support, work conditions, safe commuting, child benefits, and subsidised schooling. Some studies show that women are also frequently discriminated against in terms of career progression, mobility and job tenure as a result of existing gender bias (Cook & Glass, 2014; Koskina, 2009).

Two areas that are of particular relevance to developing countries are pay and benefits and employment security. Low pay is frequent in emerging countries, both in relative terms (when compared to pay in more advanced countries) and in absolute terms, which relates to the minimum level of income that a worker would need for survival or for a decent living (Lee & Sobeck, 2012). Moreover, low-paid work may pose challenges for a country's social and economic development (Fontes, Pero, & Berg, 2012) thus it is an issue of much needed attention to emerging economies. Employment security is usually rare in emerging countries, arguably as a consequence of the high levels of informal work. Informal work is typically not regulated by the state or subject to established institutional norms; therefore, informal workers lack employment security, benefits, and standard labour protection (Biles, 2009; International Labour Office, 2002). Other forms of contingent work used by firms in search for greater flexibility in employment include part-time jobs, temporary agency work and fixed-term contracts (Cazes & Laiglesia, 2014; Kalleberg, 2000). In the same way as informal work, temporary jobs are characterised by less favourable conditions than formal jobs on open-ended contracts (Cazes & Laiglesia, 2014). Moreover, even those workers who have formal jobs in these countries do not necessarily experience job stability, as employment protection legislation and enforcement procedures may be weak in less developed economies (Venn, 2009). On the other hand, many authors argue that strict employment protection regulations have the opposite effect on job stability. Barriers such as excessive government regulations, high taxes on employment and high firing costs on permanent jobs may be an incentive for employers to use informal work and temporary jobs (Venn, 2009; Saracoğlu, 2008; Cahuc & Postelvinay, 2002; Loayza, 1996).

As discussed earlier in this chapter, previous studies show that the relationship arrangement between buyers and suppliers influences the accounting techniques used to manage the inter-firm relationship. The relationship arrangement between buyers and suppliers is also likely to influence the social issues across the supply chain. For example, in arm's length relationships, where tendering and one-off supplies are frequently used, suppliers may be likely to use informal and/or temporary work with little employment security in order to reduce costs and achieve target costs. In more advanced stages of the supply chain maturity, firms may be more likely to use permanent work which offers job security and better pay in order to retain skills and knowledge, facilitating joint efforts across the supply chain that might in turn achieve cost effectiveness. Ultimately, as argued by Yawar & Seuring (2017), collaborative efforts between buyers and suppliers are essential for managing social issues in supply chains.

2.8 Summary

This chapter explored previous empirical and theoretical studies on supply chain accounting (SCA), which is the term used in this study to refer to the domain of management accounting and management control in inter-organisational settings. Accordingly, in this thesis the term SCA encompasses all forms of controls in inter-organisational settings, including control archetypes, management control mechanisms and cost and accounting controls (Caglio & Ditillo, 2008). SCA involves the use of management accounting techniques and controls mechanisms beyond organisational boundaries, aimed at promoting cooperative actions between buyers and suppliers. Although the line that separate these techniques and/or mechanisms is sometimes blurred, this chapter distinguished between six SCA practices, and offered a review of previous literature that studied each of these practices, namely: inter-firm governance; make-or-buy decisions; performance measurement and balanced scorecard; cost management and activity-based costing; customer accounting; and open book accounting. As explained in previous chapters, in order to achieve this study's main purpose of exploring the potential of SCA to promote both economic and social upgrading, this study explores the SCA practices used by a focal organisation in the textiles industry in Brazil and across its supply chain. Initially, a wider range of SCA practices were explored and, after

preliminary analysis of data collected, greater focus was given to the SCA practices that were more relevant to the case study and that offered richer empirics to achieve this study's purpose and objectives. Thus, in common with previous exploratory case study studies (Cooper & Slagmulder, 2004), the preliminary case analysis helped to identify the SCA practices to focus on in the course of the research. The range of SCA practices initially explored during the data collection was informed by the literature review offered in this chapter. After the initial data analysis, focused on four SCA practices: 1) inter-firm governance; 2) make-or-buy decisions; 3) customer accounting, and 4) open book accounting. This chapter also offered a definition of the terms 'developing countries' and emerging economies', explaining how Brazil is located within both. Finally, given this study's objective of exploring the influence of SCA practices on the social context in which an organisation operates, this chapter also offered a brief review of the literature on social issues that organisations may encounter across supply chains.

CHAPTER 3: INSTITUTIONAL THEORY AND THESIS

CONCEPTUAL FRAMEWORK

This study's conceptual framework draws on the concepts of institutional theory. In other words, institutional theory is the method theory that underpins the conceptual framework used as an auxiliary (Lukka & Vinnari, 2014) to enable the achievement of this study's aims and contributions. Many different method theories have been used in management accounting research to date. Early management accounting research tended to use neo-classical economics theories, whereby researchers were more concerned with developing sophisticated decision models which generally remained untested in practice (Bromwich & Scapens, 2016). Since the 1980s, management accounting researchers have started to study management accounting practice, and a wide range of social and organisational theories have been adopted in management accounting research (Bromwich & Scapens, 2016). Institutional theory has become a common theoretical approach in studies of management accounting for several years now (Carlsson-Wall, Kraus, & Messner, 2016; Smets, Morris, & Greenwood, 2012; Johansson & Siverbo, 2009; Coad & Cullen, 2006; Tsamenyi, Cullen, & González, 2006; Hassan, 2005; Soin, Seal, & Cullen, 2002; Burns & Scapens, 2000). Other method theories that have been used in management accounting research to date include, but are not limited to, Transaction Cost Economics (Dekker, 2004; Langfield-Smith & Smith, 2003; van der Meer-Kooistra & Vosselman, 2000), Actor Network Theory (Qu & Cooper, 2011; Mouritsen & Thrane, 2006; Briers, Wai, & Chua, 2001), structuration theory (Busco & Scapens, 2011; Moilanen, 2008; Jack, 2005) and strong structuration theory (Feeney & Pierce, 2016; Makrygiannakis & Jack, 2016; Moore & McPhail, 2016; Jack & Kholeif, 2008). This chapter is structured as follows. The first section provides a brief overview of some of the different theoretical approaches used in previous management accounting studies, leading to the justification for the choice of institutional theory as method theory to underpin this study's conceptual framework. The second section provides a review of the use of institutional theory in management accounting research to date, exploring the key concepts of and main developments in institutional theory within management accounting research. The last section explains the conceptual framework developed to provide the lens

for this study and used as an auxiliary to enable the achievement of this study's aims and contributions.

3.1 Theoretical approaches in management accounting research

Transaction Cost Economics (TCE) has been adopted by previous studies of management accounting and controls in inter-organisational relationships (Dekker, 2004; Langfield-Smith & Smith, 2003; van der Meer-Kooistra & Vosselman, 2000). TCE predicts that the governance structure with the lowest transaction costs will be chosen to control the inter-organisational relationship (Dekker, 2004; Williamson, 1985, 1991). Therefore, TCE focuses on the notion transaction cost minimization and opportunism, ignoring many other factors that may influence the type of inter-organisational relationships. For example, TCE also fails to recognise the variety in inter-firm relationship goals (e.g. the choice of a reliable partner with the purpose of ensuring stability and continuity) (Dekker, 2004). Other important factors that shape the type of inter-firm relationships that are not taken into account by TCE include the social context in which the relationship occurs (Meira et al., 2010; Dekker, 2004); the issues of power and trust (van der Meer-Kooistra & Vosselman, 2000), and the interplay between firms in order to take advantage of their capabilities (Cooper & Slagmulder, 2004). Thus, TCE has been argued to be insufficient to explain complexities of the inter-organisational environment (Meira et al., 2010; Coad & Cullen, 2006; Cooper & Slagmulder, 2004; Dekker, 2004; Håkansson & Lind, 2004). Given this study's objective of investigating the factors that influence the use of SCA practices in Brazil, including the intra- and inter-organisational factors and the external environment context, TCE seemed to be of limited value for this study's conceptual framework.

Actor Network Theory (ANT) is a research approach that focuses on the relationship between human and non-human actors (Lukka & Vinnari, 2017; Modell, Vinnari, & Lukka, 2017; Justesen & Mouritsen, 2011; Meira et al., 2010). Although ANT has been applied in studies within a wide variety of fields, including management accounting and organisational studies, ANT has its origins in science and technology studies, particularly in the work of Latour (1987, 2005). Accordingly, ANT focusses on understanding how scientific knowledge and innovations are created (Lukka &

Vinnari, 2017). ANT assumes that the process of construction (such as the construction of knowledge and of innovations) involve both human and non-human actors (Lukka & Vinnari, 2017). In other words, ANT attributes agency to non-human actors (Justesen & Mouritsen, 2011), whereby an actor is “anything that has an effect on another thing” (Latour, 2005, p. 71). Within management accounting research, ANT has largely been applied to studying management accounting change including the emergence and/or implementation of innovations and/or new processes such as activity based costing (Briers, Wai, & Chua, 2001), balanced scorecard (Qu & Cooper, 2011), and transfer price and inter-organisational arrangements (Mouritsen & Thrane, 2006). Management accounting research using ANT regard accounting as non-human actors that play a role in the emergence of, for example, new processes (Lukka & Vinnari, 2017; Modell, Vinnari, & Lukka, 2017). For example, accounting figures, reports, and information systems may play a role in legitimising the implementation of a new process. ANT criticises studies that explain the emergence of new routines by reference to the social structures and pre-existing institutions (Lukka & Vinnari, 2017; Modell, Vinnari, & Lukka, 2017). Given this study’s objective of investigating factors that influence the use of SCA practices in Brazil, this study explores both the external and internal forces that shape actors’ behaviour, including the actors’ the pre-existing conceptions and both the economic and social structures in which they are embedded. Therefore, ANT did not seem to be a suitable approach to address the aims of this study. Moreover, in rejecting the pre-existing institutions, ANT does not suit the social constructivist ontological assumption that underpins this study, as will be explained in chapter 4.

Structuration theory (Giddens, 1984) is concerned with the relationship between human actions and the structuring of social systems. For Giddens, systems encompass social practices which are reproduced over time through human actions (Burns & Scapens, 2000). In other words, structuration theory explains how the interplay between social structures and human agency shape society (Jack, 2017). Giddens’ structuration theory introduced the notion of the duality of structure and agency, whereby agents and structures cannot be seen as two independent phenomena (Englund, Gerdin, & Burns, 2011). In other words, where one cannot exist without the other (Jack, 2017). Structuration theory contributed to accounting

research by helping to “pave the way for viewing and understanding accounting as an organizational and social phenomenon” (Englund, Gerdin, & Burns, 2011, p. 503), and it has been used by many researchers to study management accounting practices implementation and/or triggers of management accounting change (Busco & Scapens, 2011; Moilanen, 2008; Jack, 2005). However, structuration theory has been argued to be unsuitable for studying complex networks relationships (Jack, 2017; Conrad, 2014).

Strong structuration theory has emerged from the work by Stones (2005), and is regarded as an important development (or strengthened version) of Giddens’s (1984) structuration theory (Jack, 2017; Coad, Jack, & Kholeif, 2015, 2016; Harris et al., 2016). Strong structuration theory retains the notion of duality of structure, but it proposes that such duality should be analysed through a quadripartite framework of related components, encompassing external structures, internal structures, agency and outcomes (Coad, Jack, & Kholeif, 2016). Stones sees his work as a basis for working out concepts to build new theoretical ideas (Coad, Jack, & Kholeif, 2016; Stones & Jack, 2016). This study’s main purpose is to explore the potential of SCA to promote economic upgrading whilst also promoting social upgrading, using the lens of a method theory as an auxiliary to achieve its objectives. Therefore, despite the potential of strong structuration theory for the study of management accounting, this study necessitated a more widely tested framework within management accounting qualitative research (it is important to note that this study was designed in 2013). At the time of the design of this study, strong structuration theory was arguably at an experimentation phase, in need of further research that used case study to build the theory (Jack & Kholeif, 2007). As explained above, this study offers a contribution to knowledge by contributing to the domain theory of SCA, rather than contributing to the development of a new theory. In fact, Jack (2017, p. 212) observes that strong structuration theory has so far been used mostly as “a framing or sensitising device, often in conjunction with other social theories”. Therefore, strong structuration theory did not seem to be the most suitable theoretical lens for this study.

Finally, after looking at the different theories used in previous management accounting research, institutional theory was the chosen theoretical lens to

underpin this study. Institutional theory has become a common theoretical approach within management accounting research, particularly in studies of management accounting change (Carlsson-Wall, Kraus, & Messner, 2016; Smets, Morris, & Greenwood, 2012; Johansson & Siverbo, 2009; Coad & Cullen, 2006; Tsamenyi, Cullen, & González, 2006; Hassan, 2005; Soin, Seal, & Cullen, 2002; Burns & Scapens, 2000). Many researchers studying management accounting change using institutional theory draw on the work by Burns & Scapens (2000), whereby management accounting practices are assumed to be a set of rules and routines (institutions) within organisations. Burns & Scapens (2000) developed a framework to explain the process of institutionalisation of rules and routines through a four-stage process. In fact, it has been argued that Burns & Scapens' (2000) framework draws on structuration theory, by adding a time dimension to explain the process of institutionalisation (Scapens & Varoutsas, 2010). Although rules and routines are shaped by institutions, rules and routines can become institutionalised themselves (Burns & Scapens, 2000). Therefore, it can be argued that while management accounting practices are shaped by the wider institutional environment in which an organisation operates, management accounting practices can become part of their wider institutional environment. Given that this study aimed to explore how management accounting practices may influence social practices across supply chains, Burns & Scapens' (2000) framework provided useful insights for the development of the conceptual framework to underpin this study. Burns & Scapens' (2000) framework explains how previous institutions (e.g. embedded SCA practices) may influence the emergence of new institutions (e.g. new organisational practices). Moreover, institutional theory within management accounting research has helped researchers to understand how rules and routines (e.g. management accounting practices) become institutionalised which, in turn, may enable researchers to understand how rules and routines can be changed. Given that this study aimed to explore the role of SCA as a means of managing social issues across supply chains, this study challenges the traditional role of SCA (e.g. SCA as a means of managing inter-firm relationships in search of costs reduction and processes optimisation). Therefore, institutional theory in management accounting research is a suitable instrument to provide the lens for understanding how SCA practices have become institutionalised (or not) and how these institutions may influence the institutionalisation of new organisational practices (e.g. managing social issues).

Moreover, in terms of ontology, institutional theory is grounded on a social constructivist view of the world (Modell, Vinnari, & Lukka, 2017), which suits the ontological assumption that underpins this study, as will be explained in chapter 4. Having decided upon using institutional theory as theoretical lens for this study, the next section provides a more comprehensive review of the use of institutional theory in previous management accounting research.

3.2 Institutional theory in management accounting research

Although there is not one single definition of what constitutes institutions, institutions can be generally defined as the deeply ingrained social structures that shape behaviour within a particular social context (Hiebl, 2017). In other words, institutions are the “taken-for-granted assumptions about the way of doing things” (Burns & Scapens, 2000, p. 11) which shape the rules and routines within a particular social context. Institutional theory has become a common theoretical approach for studying management accounting, whereby management accounting practices are assumed to be a set of rules and routines within an organisational context (Burns & Scapens, 2000). Different strands of institutional theory have been used in management accounting research throughout the past decades. Early institutional research tended to revolve around three different strands of the theory: old institutional economics (ter Bogt & Scapens, 2014; Siti-Nabiha & Scapens, 2005; Burns & Scapens, 2000), new institutional economics and new institutional sociology (Ball & Craig, 2010; Tsamenyi, Cullen, & González, 2006). Although they all deal with institutions, there are some significant differences in some of their main underlying assumptions. Old institutional theory assumes that social behaviour is shaped by existing institutions, thereby assuming that individual actors play a central role in the development of and changes in institutions (Hiebl, 2017). In contrast, new (or neo-) institutional theory assumes that social behaviour is shaped by external social structures and that individual actors adapt to institutions (Hiebl, 2017). Despite the variations in some of their underlying assumptions, it is noticeable that many aspects of the different strands of institutional theory have begun to merge in recent years (Scapens & Varoutsas, 2010). This section explores the different strands of institutional theory used in previous research in management accounting. The main underlying assumptions of each strand of (early) institutional theory as well as the contemporary

developments of institutional theory are explored. Throughout the section, the concepts that underpin this study's conceptual framework are indicated. The conceptual framework proposed is then explained in the next section.

3.2.1 Old institutional economics (OIE)

Many researchers studying management accounting practices through the lens of old institutional economics have drawn on the work by Burns & Scapens (2000) (e.g. ter Bogt & Scapens, 2014; Coad & Cullen, 2006; Siti-Nabiha & Scapens, 2005). Building on old institutional economics (OIE), Burns & Scapens (2000) developed a framework that explains the process of institutionalisation of rules and routines within organisations. Management accounting practices are assumed to be a set of routines within an organisational context (Burns & Scapens, 2000), therefore the framework developed by Burns & Scapens (2000) provided meaningful insights to studying how management accounting practices are implemented and developed, and it has become a common choice of theoretical approach to the study of management accounting change (Ma & Tayles, 2009).

The framework developed by Burns & Scapens' (2000) explains the institutionalisation of rules and routines through a process that entails four stages: encoding, enacting, reproduction and institutionalisation. The first stage represents the encoding of institutions into rules and routines. The second stage, the process of enactment, represents the actors operating according to these rules and routines. The third process shows that repetition of action leads to changes in the rules and routines. Finally, the last process shows that changes in the rules and routines may lead to changes in institutions or, in other words, to the institutionalisation of rules and routines (Burns & Scapens, 2000). Therefore, management accounting practices are regarded as a set of rules and routines (codes) that can become institutionalised (regarded as the normal way of doing things) through the implementation and execution (enacting and reproduction) of these rules over time.

Burns & Scapens (2000) used their framework to analyse two case studies involving organisational change. In the first case, the authors studied the implementation of a new management accounting practice in an organisation. The authors observed

that the managers of various areas of the company viewed accounting as the main focus of their activity (i.e. accounting was institutionalised in the organisation), leading to a fairly smooth implementation of the new routine. In the second case study, the authors studied the implementation of a project in the engineering division aimed at improving accounting information. However, the engineering managers did not have an accounting-based view of the business (i.e. accounting was not institutionalised), and the project was not successful. It can be argued that this example showed that there was a limitation in Burns & Scapens' (2000) original framework to explain the process of institutionalisation, given that there are many other factors that influence the institutionalisation of rules and routines in organisations in addition to the previous institutions.

Some of the other factors that influence the institutionalisation of rules and routines which were not taken into account in Burns & Scapens' (2000) framework are the external environment factors. Soin, Seal and Cullen (2002) have drawn attention to the limitation of Burns & Scapens' (2000) framework due to its lack of consideration of the wider institutional context in which the organisation operates. Soin, Seal and Cullen (2002) studied the implementation of a new cost management system in a UK based multinational bank using the framework, and they identified the need to consider the wider institutional dimensions in order to understand the institutionalisation of organisational practices. Many other researchers have noted the limitations of OIE for giving little attention to environmental pressures and focusing primarily on the micro level (Yazdifar et al., 2008; Tsamenyi, Cullen, & González, 2006; Scapens, 2006; Ribeiro & Scapens, 2006; Siti-Nabiha & Scapens, 2005; Dillard, Rigsby, & Goodman, 2004; Soin, Seal, & Cullen, 2002). For example, Tsamenyi, Cullen and González (2006) argue that, due to its lack of consideration of exogenous factors, OIE is not appropriate for analysing organisations which face uncertainties and that compete for market position as well as political and institutional legitimacy. Some authors have sought to address this limitation of OIE by developing frameworks to explain institutionalisation of rules and routines that built on OIE though adding the element of external influences (see, for example, Siti-Nabiha and Scapens, 2005).

Tsamenyi, Cullen and González (2006) argue that researchers using OIE tend to ignore not only the external factors that influence organisational change, but also the other internal influences besides the existing institutions. Other internal factors that can influence the institutionalisation of rules and routines in organisations include power and politics (Coad & Cullen, 2006; Burns, 2000), trust (Scapens, 2006), and organisational culture (Busco & Scapens, 2011). Scapens (2006) further developed the Burns & Scapens' (2000) framework so that the new framework included the interplay of external and internal pressures; the role of agency; and the issues of power and trust. Later, Hopper and Major (2007) suggest that power and trust are only two of many other factors that shape the intra-organisational dynamics.

Another important concept introduced by Burns & Scapens (2000) and which was subsequently taken forward by other researchers is the notion of ceremonial versus instrumental institutionalisation. Burns & Scapens (2000) argued that management accounting practices can become institutionalised ceremonially or instrumentally. Management accounting practices are said to be ceremonially institutionalised when they are adopted as rituals used to maintain the "status quo" rather than to influence decision making (Siti-Nabiha and Scapens, 2005, p.47), and which have no impact on the way of thinking within the organisation (Scapens, 2006). In contrast, management accounting practices can be said to be instrumentally institutionalised when they effectively influence decision making and the ways of thinking within an organisation. On the other hand, Siti-Nabiha and Scapens (2005) argue that ceremonial institutionalisation of routines can facilitate instrumental institutionalisation of these routines. For example, in their empirical study Siti-Nabiha and Scapens (2005) observed that although organisation had implemented new accounting practices imposed by their parent company in a ceremonial way, this implementation enabled instrumental changes later.

The notion of ceremonial institutionalisation can arguably be particularly relevant for developing countries, and therefore to this study. For example, affiliates of multinationals operating in developing countries may adopt practices imposed by the headquarters, but the adoption may be only in ceremonial way (Kostova & Roth, 2002). Arguably, local firms in developing countries may imitate practices of

multinational firms operating in the same country in search for legitimacy (e.g. to appear professional), but the adoption of such practices may be only ceremonial, with no impact on the way of thinking within the organisation (Scapens, 2006).

3.2.2 New Institutional Economics (NIE)

Another strand of institutional theory is New Institutional Economics (NIE). This strand of institutional theory builds on the concepts of neoclassical economics. Scapens and Varoutsas (2010) argue that NIE is an adaptation which brings institutions to neoclassical economics. NIE defines institutions as rules and norms of behaviour which determine the kind of activities that will come into existence (Moll, Burns, & Major, 2006). In other words, while OIE assumes that institutions are the “taken-for-granted” assumptions of the way of doing things, NIE assumes that institutions are the external rules that shape behaviour (Scapens & Varoutsas, 2010). NIE researchers argue that institutions come into existence as a result of rational and optimising behaviour (Moll, Burns, & Major, 2006; Lindenberg, 1998). In other words, NIE assumes that individuals are always rational, ignoring the influence of their wider institutional and social setting. Therefore, while OIE assumes that institutions are shaped by existing embedded institutions, NIE researchers assume that institutions only exist where their benefits exceed their costs (Moll, Burns, & Major, 2006).

Many authors have criticised NIE’s assumption of rationality (Burns & Scapens, 2000; Rutherford, 1994; Scapens, 1994). For example, Rutherford (1994) argues that individuals do not always behave perfectly and that they rarely have access to all information, thus their understanding about reality is not always sufficiently accurate in order to enable them to make optimising decisions. Taking into consideration this study’s objective to examine the factors that shaped the SCA rules and routines in the case study organisation and across its supply chain, NIE will not be drawn on heavily in this study due to its apparent limitations in focusing on the pressures that conform to rational processes.

3.2.3 New Institutional Sociology (NIS)

A further strand of institutional theory is New Institutional Sociology (NIS). In contrast to early OIE, NIS assumes that organisational practices are shaped by their external environment (Moll, Burns, & Major, 2006). NIS recognises that, in order to survive, organisations need to interact with their wider external environment in ways that are perceived as acceptable in that environment (Dillard, Rigsby, & Goodman, 2004). Thus, according to NIS organisations seek to conform to external pressures in order to achieve legitimacy and access to resources (Ball & Craig, 2010; Scapens & Varoutsas, 2010). Many authors have used NIS to explain the process of institutionalisation of rules and routines within organisations. In other words, NIS has been used to explain how organisational practices are shaped by their external environment (Kostova & Roth, 2002).

In contrast to NIE, NIS assumes that individuals within organisations do not always make rational decisions environment (Moll, Burns, & Major, 2006). On the contrary, NIS assumes that individuals within organisations respond to social pressures by unconsciously behaving in ways that are “normal”, in order to “fit in” and appear “appropriate” (Bebbington, Higgins, & Frame, 2009, p. 592). Moreover, NIS researchers argue that the management control systems within an organisation are mainly driven by institutional factors rather than efficiency motives (Dambrin, Lambert, & Sponem, 2007; Granlund, 2001). Therefore, NIS assumes that firms operating in similar organisational fields adopt similar behaviours, including internal structures and procedures.

This phenomenon can be explained by the process of isomorphism (DiMaggio & Powell, 1983). DiMaggio and Powell (1983) outlined three processes of isomorphism: coercive, mimetic and normative. Simply defined, coercive isomorphism is the process by which an organisation adopts certain procedures resulting from the pressures of external forces, such as government regulations, supplier or customer impositions (Moll, Burns, & Major, 2006), credit markets (Tsamenyi, Cullen, & González, 2006), and head office markets (Tsamenyi, Cullen, & González, 2006). Mimetic isomorphism occurs when an organisation imitates the systems in use by other organisations perceived to be more successful (Brandau et

al., 2013; Tsamenyi, Cullen, & González, 2006; Moll, Burns, & Major, 2006; DiMaggio & Powell, 1983). Normative isomorphism relates to the adoption of internal structure and procedures encouraged by influential actors, such as consultants and professional bodies (Brandau et al., 2013; Tsamenyi, Cullen, & González, 2006; Moll, Burns, & Major, 2006; DiMaggio & Powell, 1983).

Although DiMaggio and Powell (1983) and early NIS research focused on the process of isomorphism within an organisational field, some authors pointed out that a firm's external environment may comprise other elements (Kostova & Roth, 2002; Hasselbladh & Kallinikos, 2000). For example, Kostova and Roth (2002) showed that multinational corporations operating in different countries need to conform with the environment within each country where they operate. Hasselbladh and Kallinikos (2000) suggest that institutional research should go beyond the narrow view of the field, and look at the social and cognitive means underlying rules and routines. Looking at the broader institutional environment enables the analysis to detect organisational practices that are industry wide, national or international (Ball and Craig, 2010). This study explores the influence of the external environment in the SCA practices used by a focal organisation in the textiles industry in Brazil and across its supply chain and, in doing so, this study considers the external environment as comprising both the organisational field (industry) and the national (and under researched) context of Brazil.

Many authors have criticised NIS for its dominant focus on the macro level of the institutional environment, ignoring the influence of intra-organisational aspects and of individual actors on the institutionalisation of rules and routines within an organisation (Hopper & Major, 2007; Tsamenyi, Cullen, & González, 2006; Moll, Burns, & Major, 2006; Siti-Nabiha & Scapens, 2005; Hasselbladh & Kallinikos, 2000). It has been argued that NIS is not capable of explaining accounting change due to the lack of consideration of internal institutions (Tsamenyi, Cullen, & González, 2006; Siti-Nabiha & Scapens, 2005). For example, Tsamenyi, Cullen & González (2006) suggest that NIS fails to capture the intra-organisational power relation dynamics of change. Other previous criticisms of NIS include lack of appreciation that market and legitimacy pressures are intertwined and that economic pressures and symbols are socially created (Hopper & Major, 2007).

The gap between the macro and micro influences in NIS research has been addressed by many authors (ter Bogt & Scapens, 2014; Ma & Tayles, 2009; Yazdifar et al., 2008; Hopper & Major, 2007; Tsamenyi, Cullen, & González, 2006; Burns & Baldvinsdottir, 2005; Dillard, Rigsby, & Goodman, 2004; Modell, 2003). For example, Dillard, Rigsby and Goodman (2004) developed a framework for explaining the institutionalisation of organisational practices which recognises the influence of both the external factors (organisational field level) and the human agents (organisational level). Building on the framework developed by Dillard, Rigsby and Goodman (2004), Hopper and Major (2007) proposed a model that expanded NIS and its “treatment of the public interest, boundary spanners, intra-organizational factors and how technologies like ABC acquire characteristics through translation and praxis” (Hopper and Major, 2007, p.61). Tsamenyi, Cullen and González (2006) developed a framework to analyse the changes in the accounting system of a Spanish electricity company following the deregulation of the sector. The framework developed by Tsamenyi, Cullen and González (2006) combines core elements of NIS (institutional/regulatory forces and market pressures) with intra-organisational factors (e.g. power relations).

3.2.4 Summary

This section explored the use of institutional theory in management accounting research. The section provided a review of the main strands of institutional theory used in accounting research to date including OIE, NIE and NIS. The main underlying assumptions of each of these strands of theory are summarised in Table 3.1. The section has shown that, although there are variations in some of their main assumptions, accounting research using these different strands of institutional theory have begun to merge in recent years. For example, OIE researchers drawing on the work by Burns & Scapens (2000) noted that the authors’ original framework designed to explain the institutionalisation of rules and routines lacked consideration of the external pressures. In response to this limitation, many researchers have adapted Burns & Scapens’ (2000) work by incorporating external factors in their conceptual framework (ter Bogt & Scapens, 2014; Yazdifar et al., 2008; Burns & Baldvinsdottir, 2005; Siti-Nabiha & Scapens, 2005; Modell, 2003;

Collier, 2001). Therefore, these developments combine concepts of both OIE and NIS to explain institutionalisation of rules and routines within organisations. Similarly, NIS researchers have acknowledged the limitation of NIS's focus on the macro level, and have incorporated intra-organisational factors in their framework to explain institutionalisation of rules and routines (Ma & Tayles, 2009; Hopper & Major, 2007; Tsamenyi, Cullen, & González, 2006; Dillard, Rigsby, & Goodman, 2004).

After examining each of these strands of institutional theory and their later developments, it seemed necessary to combine concepts from both OIE and NIS in order to enable this study's aim of understanding all the external and internal factors that shaped the rules and routines in the case study focal organisation and across its supply chain. Therefore, the conceptual framework designed to underpin this research uses concepts from both OIE and NIS. In a way, this study selectively applies notions from different strands of institutional theory. Although some authors have criticised the use of selected concepts from different theories (Lowe, De Loo, & Nama, 2016), other authors have supported such approach (Lukka & Vinnari, 2016). For example, Lowe, De Loo and Nama (2016) argue that the work by Chua (1995) cannot be labelled an ANT study because she renounced ANT's notions of non-human agency. Lukka and Vinnari (2016) argued instead that Chua's (1995) work should be labelled as an ANT study even though it may be a partial application of ANT, given that the study still features many other key elements from the theory. Moreover, Lukka and Vinnari (2016, p.320) highlight that "the academic community has not reached a definitive conclusion regarding whether or not one should remain completely faithful to a method theory's original formulation only" (Lukka and Vinnari, 2016, p.320).

This study conceptual framework draws on the OIE framework by Burns & Scapens (2000) and on its later developments, particularly on studies that developed hybrid frameworks which combined OIE and NIS (ter Bogt & Scapens, 2014; Ma & Tayles, 2009; Yazdifar et al., 2008; Hopper & Major, 2007; Scapens, 2006; Burns & Baldvinsdottir, 2005; Siti-Nabiha & Scapens, 2005; Modell, 2003; Collier, 2001). Building on these later developments allowed this study to explore all the core elements that shape (or have shaped) the rules and routines in the case study

organisation and across its supply chain, including the external environment factors such as the external pressures and the inter- and intra-organisational factors such as the previous individuals' and organisations' institutions (taken-for-granted ways of doing things). This study considers NIS's process of isomorphism for understanding how the external institutions are institutionalised within the organisational practices. Drawing on OIE (Burns & Scapens, 2000), this study distinguishes between ceremonial and instrumental institutionalisation of routines. The next section presents this study's conceptual framework and explains the concepts that underpin the framework.

	OIE	NIE	NIS
Definitions	Institutions are a way of thought or action of some prevalence and permanence, which is embedded in the habits of a group or the customs of a people (Moll, Burns, & Major, 2006, p. 184)	Institutions are composed of rules and norms of behaviour, and provide the opportunity set in an economy which determines the kind of activity embodied in organisations that will come into existence (Moll, Burns, & Major, 2006, p. 186)	Institutions consist of cognitive, normative and regulative structures and activities that provide stability and meaning to social behaviour (Moll, Burns, & Major, 2006, p. 187)
Assumptions	Institutions (rules, habits, routines, norms and taken-for-granted assumptions) are shaped (and/or re-shaped) by previous institutions	Institutions exist where their benefits exceed the costs for creating and maintaining them, assuming a rational-optimising behaviour	Intra-organisational structures and processes are shaped by the broader social, economic and political external environment
Limitations	Lack of consideration of external elements	Assumes that individuals are always rational, ignoring the influence of their institutional and social setting	Lack of consideration of micro explanations and intra-organisational processes

Table 3.1: Comparing different strands of institutional theory

3.3 Thesis conceptual framework

This study's conceptual framework draws on institutional theory, using concepts of both OIE and NIS. This study adopts the definition of institutions as the "taken-for-granted assumptions about the way of doing things" and which shape the organisational rules and routines (Burns & Scapens, 2000, p. 11). Consistently, this study adopts Burns & Scapens' (2000) view that management accounting practices (and therefore SCA practices) are a set of rules as routines within organisations, which can become institutionalised through their implementation and execution over time. In relation to OIE, this study draws on the work by Burns & Scapens (2000) and on its later developments (ter Bogt & Scapens, 2014; Hopper & Major, 2007; Coad & Cullen, 2006; Scapens, 2006; Burns, 2000). In their original work, Burns & Scapens (2000) developed a framework to explain the process of institutionalisation of rules and routines within organisations. Burns & Scapens' (2000) framework provide valuable concepts to the study of the institutionalisation of rules and routines within organisations. However, a significant limitation of Burns & Scapens' (2000) original framework is the lack of acknowledgement of the many other factors that influence the institutionalisation of rules and routines within organisations, such as the external factors (the wider institutional context) (ter Bogt & Scapens, 2014; Ma & Tayles, 2009; Yazdifar et al., 2008; Hopper & Major, 2007; Tsamenyi, Cullen, & González, 2006; Scapens, 2006; Ribeiro & Scapens, 2006; Siti-Nabiha & Scapens, 2005; Dillard, Rigsby, & Goodman, 2004). In order to overcome this limitation, and similarly to previous studies (ter Bogt & Scapens, 2014; Ma & Tayles, 2009; Hopper & Major, 2007; Siti-Nabiha & Scapens, 2005), this study draws on the concepts of both OIE and NIS. In relation to NIS, this study draws on the concepts of early NIS research (Collier, 2001; Brignall & Modell, 2000; DiMaggio & Powell, 1983). Drawing on both old and new institutional (sociology) theory allowed this study to explore all the core elements that shape (or have shaped) the rules and routines in the case study organisation. The core elements that influence the institutionalisation of rules and routines include the external environment, the inter- and intra-organisational dynamics, such as the previous institutions, power, trust, politics, and organisational culture (e.g. Hopper & Major, 2007). Each of these elements will be conceptualised below, with reference to previous studies and to the conceptual framework proposed for this study.

The conceptual framework that underpins this study is shown in Figure 3.1. The three boxes to the leftmost in Figure 3.1 show the factors that influence the institutionalisation of SCA practices. These factors have been divided into three main groups: internal factors (including previous institutions and the intra-organisational dynamics), inter-organisational factors (inter-firm relationships dynamics), and external factors (external environment). Each of these groups are depicted in a different box in Figure 3.1. The central box in Figure 3.1 shows the SCA practices. In other words, the rules and routines in terms of SCA. The arrows that link the boxes to the leftmost (institutional factors) to the central box (rules and routines) show that those institutional factors shape these rules and routines. Management accounting practices both shape and are shaped by other institutions (e.g. Siti-Nabiha & Scapens, 2005). This study explores the influence of SCA on both social and economic context. The institutions within the social and economic environment in which an organisation operates and which are likely to be influenced by an organisation's SCA practices are depicted in Figure 3.1 in the two boxes to the rightmost. The arrows that link the central box (SCA rules and routines) to the rightmost boxes (social and economic institutions) show that the SCA shape the social and economic institutional environment.

Although the framework seems to portrait the SCA practices as a linear process, starting from the factors that shaped the SCA practices in the case study leading to the characteristics of these practices and then to the effects of these practices (represented by the arrows pointing towards right in Figure 3.1) it is important to note that the institutionalisation of rules and routines is not a linear but rather a complex process. While rules and routines are influenced by institutional factors, rules and routines can become institutionalised themselves (Burns & Scapens, 2000). For example, Burns & Scapens (2000) argued that management accounting practices can become institutionalised through their encoding, enacting and reproduction over time. In other words, management accounting practices are regarded as a set of rules and routines that can become institutionalised through their implementation and execution over time. This study argues that an organisation's SCA practices can influence rules and routines beyond the organisational boundaries. Therefore, the rules and routines that have been shaped by an organisation's SCA practices can also become institutionalised over time. For

example, SCA practices can influence social practices of other firms across its supply chain, and these social practices can become institutionalised over time. This notion is represented in the conceptual framework by the arrows pointing towards left in Figure 3.1. In other words, these arrows show that the effects of the SCA practices can become institutionalised rules and routines and, once these rules and routines become institutionalised, they become part of the institutional environment in which the organisation operates.

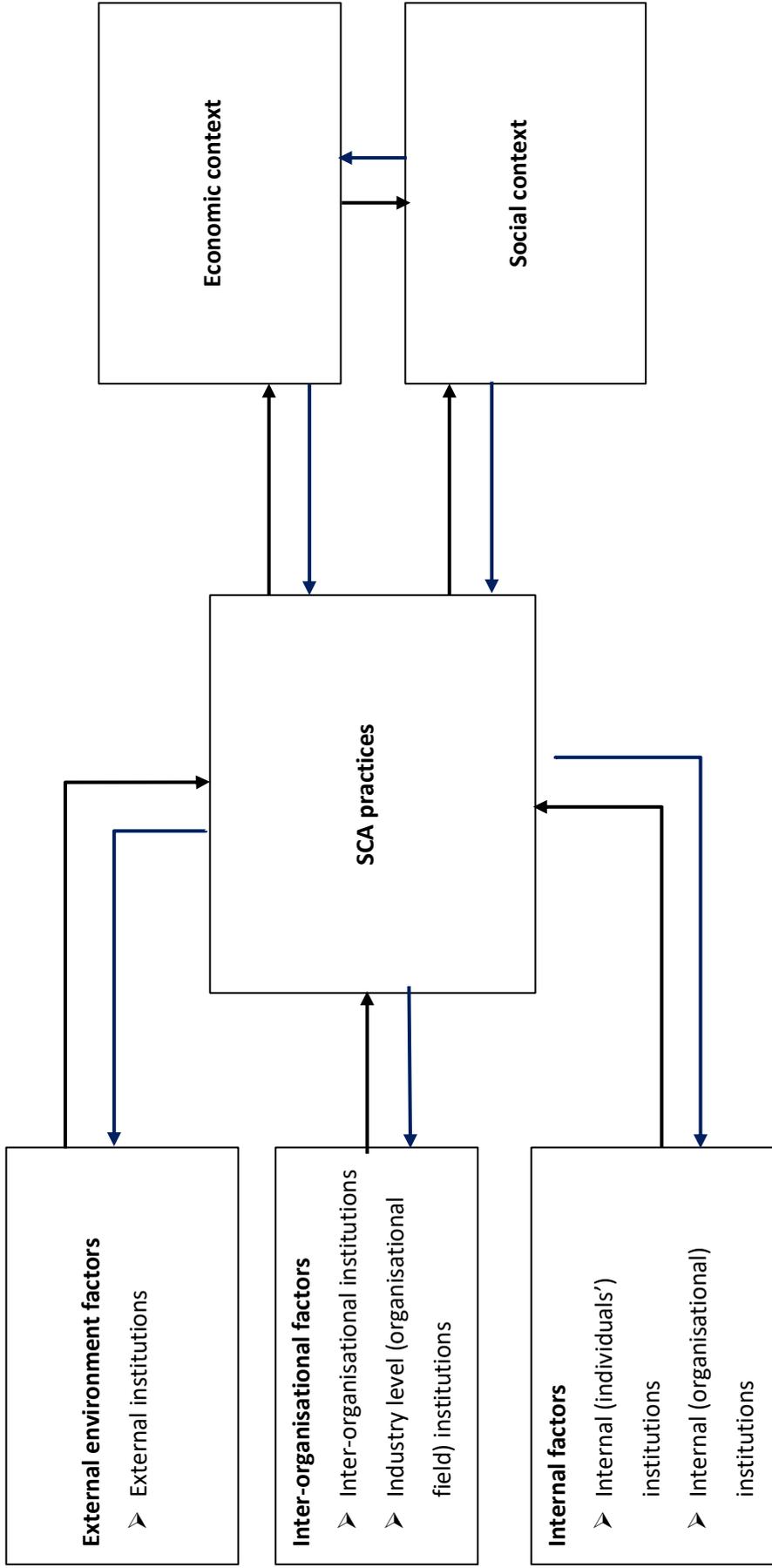


Figure 3.1: Thesis conceptual framework

CHAPTER 4: RESEARCH METHODOLOGY

As explained in previous chapters, the main purpose of this study is to explore the potential of SCA to promote both economic and social upgrading and, in pursuit of this aim, this study conducts a case study examining the SCA practices used within a focal organisation in the textiles industry in Brazil and across its supply chain. This chapter starts with a brief account of my personal journey towards the design of this study, and then moves on to explain the research methodology applied for achieving this study's objectives.

4.1. A personal journey towards the research design

This study is part of a wider ESRC funded project that investigates 'supply chain accounting and employment practices in the rising economies: global commodity chains, cost effectiveness and competitiveness'. Therefore, the broad focus of this study on SCA practices in an emerging economy had been defined upon by the scope of the ESRC project of which this study forms part. However, the specific objectives of this study were defined based on my own interests and background.

I came onboard this project as one of the two PhD students selected to be part of the project team. The multidisciplinary, international and co-productive ESRC project was designed to focus on SCA and employment practices in emerging economies, and the countries to be studied had already been defined to be Brazil and South Africa. As a Brazilian with background in accounting, this project caught my attention immediately. At the time of the PhD scholarship selection, I had recently completed my MBA studies from the University of Sheffield, and had subsequently returned to work for the organisation I worked before which had given me a study leave to pursue my MBA studies. During my MBA studies, I learned to develop a more critical thinking towards the role of accounting in society. I realised that for as long as I was working as an accountant in Brazil, I was feeding the very system that I now questioned. As a Brazilian brought up and educated in Brazil, I have always heard that Brazil was the country of future. However, the future seemed to never arrive for Brazil. I wanted to make a contribution to the development of Brazil. This project seemed to provide me with the opportunity to do so.

Once I came onboard the project, I first familiarised myself with the ESRC project overall purpose. Subsequently, I carried out my own independent review of the literature on SCA, employment practices and institutional theory. This helped me to narrow down the areas that I wished to focus upon, and develop my overall aim and objectives. Subsequently, a specific approach to data collection for this study was defined, including the design of a specific case study, the choice of the focal organisation and the development of specific interview questions. Moreover, the specific approach to data analysis and the conceptual framework used as an auxiliary to achieve the objectives of this study were developed based on my own philosophical assumptions.

The remainder of this chapter is structured as follows. The next section provides an account of the research philosophy, accounting for both the ontological and epistemological assumptions underpinning this study's philosophical position. The second section explains the research approach designed for achieving this study's objectives and describes the research methods used for conducting this study. Subsequently, considerations to the issues of positionality are discussed. The fourth section explains the research strategy in relation to language decisions and the translation process. Finally, this study's ethical considerations are discussed.

4.2 Research Philosophy

Designing a methodological approach inevitably involves considerations to our philosophical assumptions (Duberley, Johnson, & Cassell, 2012). Our philosophical assumptions shape our approach to data collection, data analysis and findings write-up (Duberley, Johnson, & Cassell, 2012), and, therefore, these assumptions are particularly relevant for qualitative research (Duberley, Johnson, & Cassell, 2012; Johnson et al., 2006). The research philosophy can be described through explaining a researcher's ontological and epistemological assumptions. Broadly defined, ontology refers to the assumptions regarding the nature of reality, while epistemology refers to the nature of scientific knowledge and how such knowledge can be justified (Modell, Vinnari, & Lukka, 2017). The next sub-sections explain my ontological and epistemological assumptions, respectively.

4.2.1 Ontological Assumptions

Ontological assumptions deal with the nature of the existence of a certain phenomenon. In other words, ontology examines whether a phenomenon exists independent of our knowing and perceiving it (Duberley, Johnson, & Cassell, 2012). Ontological views of social reality can be characterised as either realist or social constructivist (Duberley, Johnson, & Cassell, 2012). A realist (or objectivist) view of the world assumes that a phenomenon exists independent of our knowing and perceiving it, and that it is out there waiting for our discovering it (Duberley, Johnson, & Cassell, 2012). A social constructivist (or subjectivist) view of the world assumes that social reality is a construction of our consciousness and cognition, and that what we assume to be out there has no existence separate from our knowing it (Duberley, Johnson, & Cassell, 2012). Nevertheless, as acknowledged by Duberley, Johnson, & Cassell (2012), the line between these approaches may sometimes be blurred. The authors propose that, rather than trying to fit their ontological position into one of these categories, researchers should be concerned with ensuring self-reflexivity and an awareness of the various ways in which their philosophical assumptions have influenced their research (Duberley, Johnson, & Cassell, 2012).

The ontological position of this study can be better explained by the notion of differentiated realities proposed by Llewellyn (2007). Challenging the idea of a single social reality (as either objective or subjective), Llewellyn (2007) proposes that reality can be differentiated into five realms: physical, structural, agential, cultural and mental. She argues that each of these differentiated realities have different “modes of existence” (Llewellyn, 2007, p.59). Simply defined, the physical world is the realm that humans inhabit, and its existence is objective (Llewellyn, 2007). The structural world is the realm that governs human action, which encompasses institutions, roles and rules reproduced by people. Although its existence depends upon human activity, overtime it becomes a reality experienced by humans which can also enable or constrain human activity (Llewellyn, 2007). For this reason, Llewellyn (2007) argues that the structural world is not objective but objectified. The agential world is the realm of human action. It encompasses both subjectivity and objectivity or, as defined by Llewellyn (2007), it is subjective-objective. The cultural world is the realm of knowledge, concepts, values, beliefs,

ideologies, signification and symbolism (Llewellyn, 2007). The cultural world can be described as socially constructed or, as proposed by Llewellyn (2007), intersubjective. Finally, the mental world is the realm of perception, thought, feelings, desires, emotions and pre-dispositions (Llewellyn, 2007). It is internal to the human mind, and its existence is subjective. Social reality can be differentiated into structural, agential and cultural realities; therefore, these realities tend to be the primary focus in social sciences research (Llewellyn, 2007).

This study crosses the boundaries between these differentiated worlds (or realities). In other words, this study investigates different aspects of differentiated realities. For example, this study explores the internal, external and inter-organisational factors (institutions) that impacted upon the SCA practices in the focal organisation and across its supply chain. These institutions cannot be simply characterised as either objective or subjective realities. Instead, these institutions encompass differentiated realities with different modes of existence. For example, while the external factors that shaped the SCA practices in the case study enter into the structural world, the internal factors enter into both the agential (e.g. accounting and cost systems), and cultural (e.g. role of accountants) worlds. Therefore, the findings of this study have both objective and subjective aspects.

One of the external factors that impacted the practices in the case study supply chain was a government incentive for local content. The structural world exists independently of particular individuals' intentions and motivations; however, the structural world is not self-subsistent; its existence depends upon human activity (Llewellyn, 2007). This incentive existed independently of the individuals within the focal organisation and its suppliers knowing it. However, it did not exist independently of human action. It was a project (action) undertaken by individuals working for government, and it continued to exist because individuals within organisations reproduced it through practices. Another external factor that shaped the practices in the case study supply chain was the "Brazil cost" (e.g. bureaucratic importing process). The importing process in Brazil was bureaucratic even if the individuals within the focal organisation and its suppliers did not know it or perceive it as bureaucratic. In other words, the individuals within the case study organisations would have faced difficulties in importing materials independently of

their perceiving it as a bureaucratic process. On the other hand, the existence of bureaucracy in the importing process depends on human action. It is a result of the actions of individuals working for government, and it continues to exist because it is reproduced through organisational practices. The bureaucratic importing process is an unintended consequence of importing materials.

4.2.2 Epistemological Assumptions

Epistemological assumptions deal with our knowledge about knowledge (Duberley, Johnson, & Cassell, 2012). That is, epistemology examines whether we are able to know what constitutes (scientific) knowledge (Duberley, Johnson, & Cassell, 2012). In other words, epistemological assumptions deal with the question of what is or should be regarded as acceptable knowledge (Bryman & Bell, 2003). A particular epistemological issue is whether social sciences can and should be studied according to the same principles as the natural sciences. Epistemology approaches can be differentiated between positivist and interpretivist (Bryman & Bell, 2003).

This study assumes an interpretivist approach, which is based upon the view that there is a fundamental difference between the subject matter of the natural sciences and of the social sciences and that social sciences researchers should use different methods in order to understand the meaning of the social reality. While the positivist approach assumes that it is possible to objectively observe and describe social reality (Duberley, Johnson, & Cassell, 2012), the interpretivist approach assumes that the researcher should seek to understand the perspectives of those being researched, acknowledging that there can be multiple realities, and also that the researcher has their own subjective assumptions that need to be taken into account and reflected upon.

4.3 Research strategy and methods

This research uses a case study as research strategy, which is arguably the most appropriate method (or strategy) to my interpretivist approach as outlined above. Case studies offer the possibility of understanding management accounting practice in its organisational context, both in terms of what practices are used and

how they are used (Scapens, 1990). Thus, a case study is arguably the most appropriate method (or strategy) to achieve this study's objectives, enabling in-depth insights into organisations' rules and routines, and the institutions that shaped those rules and routines. The next sub-sections explain the approach and methods used in conducting this case study.

4.3.1 Case study approach

Case studies are regarded as representing the interpretive approach to management accounting research (Kakkuri-Knuuttila, Lukka, & Kuorikoski, 2008). Although the inherent aim of interpretive research is to produce descriptions and understandings of meanings that people assign to various phenomena, these descriptions and understandings of meanings can also be used for producing explanations (Lukka & Modell, 2010; Kakkuri-Knuuttila, Lukka, & Kuorikoski, 2008).

A means of developing explanations in case study research is the use of abductive reasoning (Lukka & Modell, 2010). An abductive reasoning approach combines both inductive and deductive reasoning (Lee & Saunders, 2017). Deductive reasoning involves identifying propositions (from previous literature) and then undertaking a case study to establish whether there is evidence to support those propositions (Lee & Saunders, 2017). In other words, deductive studies use empirical data to test hypotheses derived from existing theories (Lukka & Modell, 2010). Inductive reasoning involves undertaking a case study and then interpreting the findings and fitting the case study into an explanation or theory (Lee & Saunders, 2017). In other words, inductive studies produce new theoretical insights using empirical data (Lukka & Modell, 2010). By combining both inductive and deductive logic, abductive reasoning involves "moving back and forth between theory and data" in order to choose or develop the most suitable theory or explanation for a piece of evidence (Lee & Saunders, 2017, p. 107). In other words, abductive reasoning involves the development of "theoretically informed explanations to new empirical observations" (Lukka & Modell, 2010, p. 467).

The type of logic used in this case study can be better expressed as the employment of abductive reasoning. This study inductively identifies the SCA practices used in a

particular case study and seeks to explain the reasons for these practices. Simultaneously, this study (deductively) uses institutional theory as a framework to investigate the factors that shaped the SCA practices used across the case study supply chain. In other words, this study abductively develops explanations for the SCA practices observed across the case study supply chain informed by institutional theory.

4.3.2 Defining the type of contribution of the study

The discussion around the potential of case study research for producing explanations above highlights the importance of considering the type of contribution to knowledge enabled by case study research. One of the ways in which case study research can contribute to knowledge is that of theorising through particularization. While generalization involves the development of a general statement or proposition by inference from observing a particular phenomenon, particularization involves obtaining a deep understanding of a particular case and developing explanations that capture the unique characteristics of the case (Lee & Saunders, 2017). In other words, particularization involves explaining why some of the characteristics of a case are the way they are in the specific context presented (Lee & Saunders, 2017).

This thesis contributes to knowledge by theorizing about the case through particularization. Using a particular case study in the textiles industry in Brazil, this research obtained an in-depth understanding of the case and developed explanations of why some of the characteristics that comprised the case were how they were. For example, this study described the SCA practices used by the focal organisation and across its supply and explained the factors that shaped those practices in the context of the textiles industry in Brazil. This is an important contribution to knowledge given the limited research of management accounting practices in the context of developing countries and in particular in Brazil.

4.3.3 Selection of the case study

This study is based on an in-depth case study undertaken in a supply chain in the textiles industry in Brazil. It had already been decided by the broader ESRC project that the focus of my PhD research would be on the textiles industry in Brazil. The textiles industry is particularly relevant for studying employment practices and social issues. According to Hale and Wills (2007, p. 455), this sector provides “the largest amount of manufacturing employment for women globally and is one of the most widely dispersed industries throughout the world”. In Brazil, the textiles industry is an important segment, both in terms of production value and of employment generation (ABIT, 2015, 2016). Therefore, the Brazilian textiles industry provides a relevant context in which to explore the potential of supply chain accounting to promote both economic and social upgrading.

The selection of the focal organisation for my PhD case study was based on a range of different criteria. Therefore, the case study selection can be associated with a criterion selection approach (Lee & Saunders, 2017). One of the criteria for the selection of my PhD case study was the location of the focal organisation within Brazil. Firstly, consideration was given to the distribution of the textiles industry in Brazil by region. I decided to search for a focal organisation that operated in one of the regions with the largest number of textiles firms. The rationale for this criterion was that this could maximise the chances of selecting a manufacturer whose suppliers operated within close proximity and, consequently, increase the feasibility of my collecting data with other players (buyers and suppliers) across the focal organisation’s supply chain. According to the Brazilian Textiles Industry Association (ABIT), the textiles industry supply chain is distributed across the country’s five main regions as follows: the Southeast concentrates around 50% of the supply chain, followed by the South with around 30%, the Northeast with around 14%, the Midwest with around 5% and the North with around 1% (ABIT, 2017). I decided to focus in the South because, alongside its importance as the second largest region in terms of concentration of textiles firms, I am originally from this region and therefore I had an intrinsic motive to conduct a case study in and potentially contribute to the development of this region. Moreover, being a local in the fieldwork can be beneficial in many aspects, including the possibility of

obtaining contacts of potential participants through previous connections. The peculiarities of being a local in the fieldwork are explored in more details later in this chapter (section 4.5).

Once I had decided to select a focal organisation within this region, I approached the regional industry federation with the purpose of collecting information about the organisations that operated in the region. Using the information provided by the industry federation, I developed a database with a sample of potential organisations to be approached for participating in my case study. The database contained detailed information about the organisations, including their role in the supply chain (e.g. whether they were manufacturers or suppliers), their main activity (e.g. manufacturers of apparel, household or industrial textiles), location, number of employees and contact details. Initially, I narrowed the sample of companies to be approached based on the following criteria: their size regarding the number of employees, their role in the supply chain and their main activity. In terms of size by number of employees, I decided to focus on the companies with twenty or more employees, in order to maximise the chances of selecting firms with established organisational structures and well-defined divisions and/or roles (e.g. human resources, management accounting, supply chain management). In terms of the firms' role in the supply chain and their main activity, I decided to focus on manufacturers of household products because I believed that these firms were more likely to have structured supply chains. Finally, I browsed the websites of the companies that met the criteria explained above in order to obtain further information about the companies, their products and practices.

The organisation ultimately selected for my PhD case study operated in the textiles industry in the household segment, and specialised in floor covering products (hereafter referred to as CarpetCo). The product line was divided into two segments: residential and commercial, and the customer base included homes, offices, hotels, airports, and commercial environments. The plant in Brazil manufactured their products in-house, and the base materials were purchased from both the internal and the external market and from both companies within the same group and external suppliers, therefore the company provided an interesting case to study inter-organisational relationships and to explore the use of supply chain accounting

practices at different levels of buyer-supplier relationships. Finally, based on the information obtained from CarpetCo's website during the case selection process, CarpetCo held many quality certifications and local government recognition awards for its contributions to the development of the region in which the company operated. Thus, given that one of the aspirations of this research is to disseminate good practices in terms of SCA as a means to promote both social and economic upgrading, CarpetCo seemed to be a socially responsible organisation and a good case company for achieving this study's objectives.

4.3.4 Data collection

This study used mainly qualitative data, including both primary and secondary sources of data. Primary data was collected mainly through face-to-face semi-structured interviews. In-depth interviews were conducted with senior and middle managers within the focal organisation and within five of their main suppliers, and with other organisations that represented the wider Brazilian institutional context (two industry federations, the regional trade union, and the regional development bank), totalling 32 interviews across 11 organisations and three countries. Alvesson & Ashcraft (2012) argue that the selection of research participants should follow the principles of representativeness and quality. The selection of participants in this study reflect these principles, given that the interviewees were able to provide good representativeness of the case study and good quality in the interview responses. For example, within the focal organisation the interviewees included middle and senior managers of all divisions of the company, therefore the participants provided large representativeness of the organisation. Moreover, owing to the position of the interviewees both in the focal organisation and in its suppliers, the participants were able to provide rich and insightful responses. Therefore, the selection of participants enabled both breadth and depth to the interviews. Table 4.1 provides a summary of the interviews, which include the participants' position in their organisations. As shown in table 4.1, the total of 32 interviews in this study included five follow-up interviews. In other words, five of the interviewees from the first phase of data collection were interviewed again on a second opportunity.

Primary data also included observations during site visits within the case study focal organisation. These site visits allowed me to obtain a more comprehensive understanding of the production and supply chain flow, and helped to inform additional interview questions. Primary data was also collected from internal documentation provided by the case study focal organisation (e.g. production process and internal documentation flows, suppliers and contractors selection forms; quality inspection and corrective and preventive action form), and some of the suppliers (e.g. codes of conduct). Secondary data included external documentation (e.g. publications from the industry associations and national news).

Data was collected in three phases. The first phase was conducted in August 2014 and consisted of interviews with various actors within the case study focal organisation, as well as one site visit in the focal organisation's factory. The first phase also included one interview with the CEO of one of the focal organisation's suppliers based in Brazil, and one interview with the president of the regional trade union. The second phase of data collection was conducted in April 2015 and consisted of one face-to-face interview with one of the focal organisation's suppliers based in Europe. The third and last phase of data collection was conducted in August 2015 and consisted of follow-up interviews within the focal organisation as well as a second site visit to the focal organisation's factory; interviews within three suppliers to the focal organisation; and interviews with other organisations that represented the wider institutional context in which the organisation operated (two industry federations and the regional development bank). Interviews varied in length, ranging from half an hour to over two hours. Most interviews were conducted in Brazil, except for two of the focal organisation's suppliers who were based in Europe. A summary of the interviews conducted is provided in Table 4.1.

The use of semi-structured interviews was valuable for this research because it provided me with the opportunity to probe answers and hence enabled an understanding of the reasons for the interviewees' opinions. Furthermore, semi-structured interviews allowed me to lead the conversation onto topics which I had not previously considered, following the answers given by interviewees. The interview questions included open questions, often followed by probing questions.

The open questions facilitated raising a subject and letting the interviewee provide an extensive answer. Probing questions have been used to further explore answers that were relevant to the research, as well as to ask for further explanations where necessary. During the site visits I was able to contact other employees with whom interviews had provisionally not been arranged. I was also given full details of the production process and of the supply chain flows, and the contact details of some of the focal organisation's main suppliers, who were then contacted and interviewed during the third phase of data collection.

In the first phase of data collection, the interview questions included those for the project as a whole and those that I developed specifically for my case study, which were particularly relevant for the Brazilian context and were key for achieving my aims and objectives. The interview questions for the project included questions about the company as a whole, such as the companies' size in terms of number of employees, the companies' nationality and time of operation. More specific questions for the accountants included those about accounting practices such as which cost methods were used, what kind of information they shared with suppliers and customers, and what kind of HR expenses and practices they monitored. Specific questions for HR managers included what kind of benefits they offered to the employees, some indicators such as the proportion of workers by gender, age group, education levels, etc., and about their relationship with the trade unions. Questions for supply chain managers included broad questions about the supply chain processes. I was involved in the development of the interview questions for the project as a whole as these were determined through an iterative process. The project's Principal Investigator drafted a brief outline of questions for: HR managers, accountants, supply chain managers, trade union representatives within the company, regional trade unionists, CEOs, production managers and NGOs, and these were then sent to the project team (formed of seven members), the advisory board (formed of ten members) and to me and the other PhD student working on this project. I fed my suggestions into this process and many were taken on board. In addition, I attended the project team meeting at which further changes were made to the interview schedules, and again contributed toward changes made. The questions were then circulated again, and I further contributed. In particular, the changes that I suggested were with regard to the Brazilian context and culture, and

my knowledge of accounting in Brazil. For my case study, I developed further questions around the SCA practices and the factors that impacted upon these SCA practices. For example, I included questions about product criticality such as were which their more critical materials, what kind of materials they procured from each supplier, and who were the more critical suppliers (which were related to the literature on SCA). I also included more questioning around the role of management accounting and of the accountants within the organisation. Moreover, given that the data was collected through semi-structure interviews, I was able to probe further each of the questions in the interview scripts, which enabled me to obtain an in-depth understanding of my own specific case study.

The second and third phases of data collection were carried out after the preliminary analysis of data collected in the first phase, which allowed me to probe the initial findings from the first phase of data collection and analysis. The second and third phases of data collection also allowed me to explore new themes that emerged during the analysis of data from the first phase. Moreover, the second and third phases of data collection enabled me to explore the changes in the supply chain and in the intra-organisational dynamics since the first phase, providing a rich set of data for this intensive case study. The changes were explored through in-depth follow-up interviews within CarpetCo, as well as through a second site visit to the focal organisation's factory.

As shown in Table 4.1, the second phase and third phases of data collection also included interviews with four of the focal organisation's main suppliers. Having had obtained access to four of the focal organisation's suppliers not only provided information about the SCA practices of these firms with their own suppliers and buyers (including CarpetCo), but also provided access to the point of view of two parties in the dyadic relationship between these suppliers and CarpetCo. In common with the study from Seal et al. (1999), such access to the point of view of two parties in a dyadic relationship provided crucial insights for understanding the dynamics of these inter-firm relationships. The next sub-section explains this study's approach to the analysis of data collected during all the three phases of data collection.

Phase	Organisation name	Location	Organisation's role in the Supply Chain	Interviewee's role in the organisation	Length of interview
1	CarpetCo	Brazil	Focal organisation	Accounting manager	01:17
1	CarpetCo	Brazil	Focal organisation	Accountant	
1	CarpetCo	Brazil	Focal organisation	Supply chain manager	01:44
1	CarpetCo	Brazil	Focal organisation	HR manager	01:55
1	CarpetCo	Brazil	Focal organisation	Quality manager	01:29
1	CarpetCo	Brazil	Focal organisation	Industrial director	00:25
1	CarpetCo	Brazil	Focal organisation	Sales director	00:22
1	CalciteCo	Brazil	Supplier	CEO (Owner)	00:28
1	TrUn	Brazil	Trade Union	President	01:14
2	YarnsCoEU	Europe	Supplier	Sales manager	02:30
3	FedBR	Brazil	Industry association	CEO	00:34
3	FedReg	Brazil	Industry association	Social affairs manager	01:17
3	FedReg	Brazil	Industry association	Social affairs manager	
3	FedReg	Brazil	Industry association	Development manager	01:03
3	FedReg	Brazil	Industry association	Social affairs consultant	01:03
3	Edu	Brazil	Training provider	Course coordinator	00:16
3	Edu	Brazil	Training provider	Course coordinator	00:20
3	Edu	Brazil	Training provider	Course tutor	00:12
3	Bank	Brazil	Development bank	Business manager	00:59
3	CarpetCo	Brazil	Focal organisation	HR manager	00:28
3	CarpetCo	Brazil	Focal organisation	Accountant	01:13
3	CarpetCo	Brazil	Focal organisation	Supply chain manager	01:09
3	CarpetCo	Brazil	Focal organisation	External trade coordinator	01:04
3	CarpetCo	Brazil	Focal organisation	Sales coordinator	00:34
3	CarpetCo	Brazil	Focal organisation	Quality manager	00:57
3	CarpetCo	Brazil	Focal organisation	Finance director	01:26
3	CarpetCo	Brazil	Focal organisation	Accounting manager	00:43
3	LatexCo	Brazil	Supplier	Business director	01:22
3	BackCoJC	Brazil	Supplier	Sales manager	01:07
3	BackCoJC	Brazil	Supplier	HR manager	00:52
3	FloorCo	Europe	Supplier	Sales coordinator	01:10
3	FloorCo	Europe	Supplier	Sales supervisor	

Table 4.1: Summary of interviews

4.3.5 Data analysis

The process of data analysis of this study can more accurately be described as a journey. In terms of systematic analysis, it had already been decided by the ESRC project that the qualitative data analysis software NVivo would be used for coding and categorising. Prior to the first phase of data collection I developed the node structure within NVivo (themes and sub-themes) which was mostly informed by my reading. During the first phase of data collection, all interviews were recorded. The recordings were then transcribed in Portuguese by myself and subsequently translated into English by myself as well. The process of translation of the interview transcripts will be explained in more details later in this chapter (see section 4.4). Subsequently, all the translated interview transcripts were uploaded into NVivo and individually coded. That is, I went through each interview and coded chunks of the interview into nodes (themes). After this process, I could extract reports from NVivo by nodes which would show, for example, what all interviewees had said about a particular theme. Initially, broad themes were set out and, as the analysis of data progressed, other subcategories and unexpected themes have emerged. Interestingly, although the actual coding was done onto the translated transcript, the process (journey) of analysing data started as early as during the process of transcribing the interviews. As I was transcribing the interviews, I was inevitably reflecting on the interviewees' answers, on how my findings compared to the literature, and finding new themes that I had not previously anticipated. I then started including new themes into my nodes structure in NVivo and taking many notes of my insights during the process. Therefore, when it came to the actual coding in NVivo (in other words, when I uploaded the final translated transcripts into NVivo for coding), I already had a very different node structure compared to what I had before conducting the interviews. Moreover, I had most of my insights while I was transcribing the interviews. Therefore, my data analysis journey started with the transcribing process. On reflection, I find it difficult to draw a thick line between my data collection and my data analysis. I believe that my making sense of the data that I collected inevitably started with the data collection.

The second phase of data collection consisted of one interview with one of the focal organisation's supplier (which was conducted in English). In this case, the

participant did not consent with recording the interview, thus detailed notes were taken during the interview (taking note of answer by answer). These notes were then uploaded into NVivo and coded in the same way as with the first phase of interviews. The third phase of data collection consisted of various interviews conducted in Brazil, and all interviews were recorded and later transcribed by myself. For this phase, the transcripts uploaded into NVivo and coded were in the original language of the interview. The rationale for this strategy is explained in the next section of this chapter (section 4.4).

In terms of the node structure, before the first phase of data collection two broad categories were set out: 'Supply Chain Accounting (SCA)' and 'Employment practices and gender equality'. In relation to the latter, later on I changed it to 'Managing social issues' in order to encompass firms' approach to managing social issues that they may encounter across supply chains more broadly, as explained in more details in chapter 2. In relation to SCA, as the data analysis progressed, I decided to set out one sub-category for each of the most relevant SCA practices in my case study (as explained in chapter 2): inter-firm governance, open book accounting (OBA), make-or-buy decisions, and customer accounting. These four SCA sub-categories turned into my four analysis chapters later on. In other words, during the data collection a wide range of SCA practices (or mechanisms) were explored and, after preliminary analysis of data collected, greater focus was given to the SCA mechanisms that were more relevant to the case study and offered richer empirics to achieve this study's purpose and objectives. Thus, in common with previous exploratory case study studies (e.g. Cooper & Slagmulder, 2004), the preliminary case analysis helped to identify the SCA practices to focus on in the course of the research. Moreover, further themes under the outlined subcategories were detected. For example, under SCA motives, the possible factors that might influence SCA practice anticipated prior to the data analysis were: uncertainty, asset specificity, trust, and cost reduction. After the analysis of the interviews, many factors that I had not previously anticipated were identified, such as personal relationships. These unexpected themes led me to create new nodes and, more importantly, to go back to the literature. As I read about those themes that I had not previously anticipated, I reflected further on my findings and went back to the interviews, creating more nodes and taking more notes. This iterative process

between my reading and my findings continued throughout the entire data analysis and writing-up processes. In fact, I would say that there is a blurred line between my data analysis and writing-up journeys.

4.4 Language decisions and the process of translation

There is an emerging literature of language in international business research calling for international and cross-language studies to report on the important decisions related to language and translation processes (e.g. Chidlow, Plakoyiannaki, & Welch, 2014). Language is the way people communicate, therefore language is embedded in the research process, and it is particularly important in qualitative research. Previous international business researchers seem to assume a positivist approach towards translation, whereby translations are assumed to be able to provide a literal translation of original data (see Xian, 2008). For example, some scholars suggest that the use of techniques such as back translation (e.g. Harkness, 2003), whereby the research instruments is translated from one language into another and subsequently translated back to the original language; and using more than one translator (e.g. Douglas & Craig, 2007) may help to overcome language barriers. As articulated by Xian (2008, p. 243), “translated data are constructions or results of interpretation”. Xian (2008, p. 242), recommends a more interpretative approach to international research, emphasising the “researcher/translator’s active constructing of “reality” - through perception, cognition and the handling of cultural difference - between languages”. This section describes this study’s specific language strategy used both during the fieldwork and the data analysis stages (e.g. the process of translation).

4.4.1 Language biography

In this study, I was both the researcher and the translator. Inspired by other researchers who are also the translators of their studies (e.g. Xian, 2008), I first present my language biography in order to explain my language decisions in designing and conducting my study. I was born in Brazil, where Portuguese is the official language, and my first language is Portuguese. I was educated in Portuguese since primary school throughout to my university degree. I only spoke Portuguese

in school, but at the age of 11 I started learning English as a second language. During my university studies, I spent one summer in the United States working in a temporary job in order to improve my English. Shortly after completing my university degree in accounting, I started working for an American company operating in Brazil in the accounting division. Although most of my colleagues were Brazilians and we only spoke Portuguese amongst ourselves, the corporate language within this company was (American) English. All company documents were in English, and we had to report to managers based in the headquarters in the United States. While I was working for this company I had to learn all the accounting terms in English, and I also had to learn different accounting conceptual frameworks and standards (e.g. USGAAP, IFRS, Colombia GAAP). After working for this company for 5 years, I decided to take a study leave to pursue my MBA in the UK. Although this was the first time I was formally educated in English, I already had experience working in English and I was already familiar with business and accounting terms. However, during my time in the UK I learned differences in these terms between American and British English (as well as other day-to-day differences). Moreover, during my MBA studies I engaged in reading academic papers published in international journals. By doing so, and combined with the discussions in the lectures, I learned not only new terms but also new concepts. I developed a more critical thinking approach and a new writing style. Upon completion of my MBA studies and after 17 months living in the UK I returned to Brazil and to work for my previous employer, where I worked for a further 18 months before returning to the UK to pursue my PhD studies. During my PhD studies I engaged in extensive reading of academic papers published in international journals, and I have continuously been developing a more critical thinking approach. Within this context, I designed and conducted a research using a case study in Brazil. Switching between Portuguese and English became a natural process for me. For example, while based in the UK and speaking English in a daily basis, I was contacting participants in Brazil with whom I spoke Portuguese. While I was collecting data in Brazil and speaking Portuguese in a daily basis, I sometimes found links between my findings and the previous literature (which I had read in English), and I spontaneously made my notes in English. In hindsight, I was using raw data in Portuguese and instantly writing up my analysis in English. This process will be explained further later in this chapter (in section 4.4.3).

4.4.2 Fieldwork language design

In terms of type of cross-language research, this study can be broadly defined as a study within a single non-English speaking country (see Chidlow, Plakoyiannaki, & Welch, 2014). This is because this study is based on a case study in Brazil, a non-English speaking country and in which English is not widely spoken. Moreover, the vast majority of the interviews were conducted in Brazil (29 out of 32 interviews), and the vast majority of interviews were conducted with Brazilian nationals (28 out of the 32 interviews). In common with previous studies in single non-English speaking countries (Sinkovics & Penz, 2009; Krivogorsky & Eichenseher, 2005), this study's strategy was to use the interviewees' native language in the interviews (where possible). As with previous cross-language studies (Moore, 2003; Pla-Barber, 2001), this was enabled by the researcher's own language skills. As explained above, most interviewees were Brazilians and, in these cases, since both I and participants were Brazilians, the interviews were conducted in our native language (Portuguese). This strategy enabled a dynamic interaction between me and the interviewees (a mixture between formality and informality) and helped to avoid any possible misinterpretations of both the questions and of the answers.

There were a few exceptions to this strategy, in three instances in which the interviewees were not Brazilians. In these cases, the strategy adopted was as follows. In the first instance, while the interviewee worked for the focal organisation in Brazil and the interview was conducted in Brazil, the interviewee was a national of a European country. In this case, since I did not speak his native language, I gave him the option of conducting the interview either in Portuguese or in English and he chose the latter. Despite being based in Brazil and speaking Portuguese, he said that he felt more confident speaking English. In the second instance where the interview was not conducted in Portuguese the interviewee was a supplier to the focal organisation based in Europe, and the interviewee was a national of the country where he was based. I travelled to his country to conduct the face-to-face interview but since I could not speak his native language and our only common language was English, the interview was conducted in English. The third instance involved a joint interview with two interviewees whose native language was English thus the interview was conducted in English as well.

4.4.3 Translation and data analysis language strategy

As explained above, data collection was conducted in three phases: the first phase involved interviews within the focal organisation and one of their suppliers based in Brazil; the second phase involved one interview with one of the focal organisation's suppliers based in Europe which was conducted in English; and the third phase involved various interviews within Brazil and one in Europe. All interviews were recorded except for the one in the second phase where the consent of participant was not obtained. For the all interviews from phases one and three, the recordings were then transcribed by myself, as explained in section 4.3.4. Then, all interviews from phase one that had been conducted in Portuguese were translated into English by myself. My translation could be described as a sentence-by-sentence translation. I listened to the recordings and wrote the sentences in English. This approach has been used by other researchers/translators (e.g. Xian, 2008). In instances where there is not an exact similar word in English, I kept the original word in Portuguese under brackets to make sure nothing got "lost".

The process of translation adopted for phase one was then revised for phase three. For the data collected in the third phase of data collection, the analysis was conducted in Portuguese, and the writing up of findings was conducted in English. In other words, my making sense of data was based on the interview transcripts in Portuguese. During the writing-up phase, the quotes that were deemed important to be included in the thesis were translated individually. Other international business researchers have used a similar approach, whereby data is collected and analysed in one language and findings are written-up in a different language (Brannen, Piekkari, & Tietze, 2014; Welch & Piekkari, 2006).

The language strategy used for the analysis of data from phase three was enabled by the researcher's cognitive structure. As articulated by Brannen, Piekkari and Tietze (2014, p. 500), for most international business scholars research is not a monolingual process but rather a process "characterized by linguistic plurality that necessitates ongoing interpretation and translation".

Since I can speak both Portuguese and English, I can think in both languages and I can easily transfer a train of thought from one language to the other. For example, I can read an interview script in Portuguese and arrive at conclusions, and I can easily write-up such conclusions in English. Moreover, as explained in section 4.3.4, the data analysis process (or my making sense of data) started when I started transcribing the interviews. Therefore, I decided that it was not necessary for me to translate the interviews from phase three.

Some authors consider language as a barrier to accuracy in international research (Chidlow, Plakoyiannaki, & Welch, 2014). In this study, language was not a major barrier to accuracy given that I was both the researcher and the translator. However, as with any qualitative data study, the research findings may be influenced by my own subjective view of the world and, particularly, of the case study context. The next section explores this limitation in more details, and explains the tools applied in this study to overcome such limitations.

4.5 Reflexivity and Positionality: being a local in the fieldwork

In order to conduct ethical research, it is critical to consider issues of reflexivity, positionality and power dynamics in the fieldwork (Sultana, 2007). Being a local in the fieldwork may have particular implications in terms of reflexivity and positionality. As a Brazilian doing research in Brazil (where I am a 'local'), in this section I offer a reflection around these issues.

Doing research while being a local can be helpful in many aspects. For example, knowing the language of the interviewees enables a more dynamic interaction between the researcher and the participants. Moreover, being a local allows the researcher to relate to the interviewees and to understand their (external) institutional context. Being a local can also be very fruitful in terms of getting contacts. In this study, being a local indeed helped me to secure a few interviews through networking. Moreover, the selection of participants had a 'snowballing effect', where people who I interviewed referred me to someone else, and so on.

On the other hand, being a local can also be problematic, as it may lead to bias in interpreting data influenced by my own views and taken-for-granted assumptions. In order to overcome this limitation, I sought to constantly monitor myself, throughout the entire study. During the data collection phases, I was very careful in order not to influence or lead the interviewees to an answer. As a Brazilian who has worked in Brazil, but who has also studied outside of the country, I was able to relate to the participants and to understand the reality of the case study organisation, whilst at the same time I was able to critically analyse the firm's practices owing to the experience that I have obtained studying abroad. I worked for a Brazilian manufacturer company for nearly four years as a financial and management accountant. In this job I participated in the implementation of an ERP system, where I had to map the whole process of the company, from purchasing raw materials to selling and delivering products to final customers, which allowed me to obtain a broad picture of how a manufacturing company works, including its supply chain networks, HR and accounting practices. Later I worked as an accountant for a large multinational company for seven years, where I had the opportunity to work with more sophisticated accounting practices which are usually not used by small companies. Furthermore, in this job I had the opportunity to do business with various affiliates of the company across the globe, which helped me to obtain a view of different firm practices in different countries. Moreover, my understanding has also been informed by my reading and, as explained above, much of the literature has so far been based on more developed countries. Therefore, despite being a local I was able to critically evaluate and distance myself from the interviewees' responses.

I was also aware of the need to be reflexive in my research practices. In other words, I have continually questioned my understanding of what I was hearing and seeing, and of how I was interpreting this as an insider/ outsider. During the initial stage of interviews in August 2014, I found that sometimes my interpretation of what people were saying was influenced by my previous experience. For example, my previous experience in an American owned company may have influenced my perception of the role of the trade unions in Brazil. The view in my previous company was generally not positive toward the role of the trade unions; thus, when I interviewed the HR manager I needed to be aware that the way in which I

questioned her might have been influenced by my own assumptions. In such circumstances, I sought to make an open question.

4.6 Ethical considerations

The ethical issues involved in this study included the fact that it involved research on human subjects (through interviews); and the collection, usage and storage of data. These issues were managed in accordance to the ethical guidelines of the University of Sheffield. Given that this study is also part of a wider project funded by the Economic and Social Research Council of the UK (ESRC), the ethical guidelines of the ESRC were followed as well. The ethics approval for this research was granted by the University of Sheffield, as part of the approval for the ESRC project. I have received training in research ethics both through formal training and through supervision, and have been made aware of the procedures to be considered while designing and conducting the research, including personal safety and the prevention of harm to participants.

All participants were informed about the purpose of the study, the research methods and the nature of their participation. The participants were also made aware that data would be anonymised in order to preserve confidentiality, and that all research data would be submitted to the UK Data Archive, as required by the ESRC. These were communicated through written means during the process of negotiating access, and participants were asked to sign a consent form before each interview.

Other ethical issues involved in this research included information about supply chains. Peculiarities of the inter-organisational relationships across the supply chain and of the production process might be commercially sensitive. This study also involved ethical issues regarding firms' approach to managing social issues. For example, enquiries about employment practices may potentially lead into sensitive issues, where the information provided by the interviewees may indicate that the firm does not comply with labour standards or ethical practice. Therefore, I carefully maintained data confidentiality throughout the entire research process in order to ensure an ethical research was being undertaken.

4.7 Summary

This chapter explained the research methodology applied in this study. The chapter started with an account of my personal journey towards undertaking this study, which is part of a wider research project funded by the ESRC. The chapter then presented an account of the research philosophy underpinning this study, which is grounded on a social constructivist ontological approach, and an interpretivist epistemological approach. The chapter then explained the research methods used to achieve this study's objectives. This study uses mainly qualitative data and is based on an in-depth case study undertaken in a supply chain in the textiles industry in Brazil. The fourth section explained the language decisions of this study, whereby data was mainly collected in Portuguese and analysed both in Portuguese and in English. The fifth section offered a reflection of the issues of reflexivity and positionality arising from a study whereby the researcher is also a local. Finally, ethical considerations were discussed. The next chapter describes the case study context – the Brazilian textiles industry.

CHAPTER 5: CASE STUDY CONTEXT: THE TEXTILES INDUSTRY IN BRAZIL

As explained in the Methodology Chapter, this research uses a case study in the textiles industry in Brazil. The textiles industry is an important sector in Brazil both in terms of production value (economic context) and in terms of employment generation (social context). For instance, in 2014 the textiles sector represented 5.6% of the GDP of the national manufacturing industry (ABIT, 2015). In terms of employment, in 2014 the textiles sector created 16.9% of the jobs in the entire manufacturing industry in Brazil (ABIT, 2015). This chapter explores the institutions that impact upon this important industry sector in Brazil. By doing so, this chapter helps to understand the external factors impacting the supply chain accounting practices as well as the rules and routines in terms of managing social issues within the case study focal organisation and across its supply chain. The chapter begins by exploring the institutions that are likely to influence the supply chain accounting practices – the technological development of the Brazilian industry, the taxation system in Brazil, and government initiatives such as incentives for local content. The chapter then moves on to explore the institutions that are likely to impact upon the approach of firms operating in the industry to managing social issues, such as the organisations' employment practices and their monitoring of practices down their supply chain. This chapter explores the (employment) legislation in Brazil and the role of the trade unions; the role of the industrial federations and the educational institutions.

5.1 External environment: institutions impacting the SCA practices in Brazil

This section focuses on the institutions that influence the supply chain accounting practices in the textiles industry in Brazil. This section begins by exploring the technological development of the Brazilian industry with a particular focus on the textiles sector. Secondly, this section will explore the Taxation system in Brazil and what was referred to by interviewees as the 'Brazil Cost'. Finally, the Government incentives for local content will be explored. These institutions are likely to shape, for instance, the make-or-buy decisions, supplier selection and governance structures in inter-firm relationships.

5.1.1 Technological development of the Brazilian industry

One of the main challenges faced by the textiles industry in Brazil was the competition from abroad, as explained by the Business manager at the Regional Development Bank. The manager explained that the Brazilian textiles firms struggled to compete both in the external market (in other words, to export their products to other countries), and in the internal market (in other words, to compete within Brazil with the imported products entering the country). Other interviewees referred to challenges faced by the Brazilian textiles industry in trying to compete both in terms of price with products from low-cost countries and in terms of quality with high-end technology countries (BackCoJC_SM, Bank_BusM). In fact, the sales manager of YarnsCoEU, one of the suppliers to the case study focal organisation which was based abroad, compared the production process in Brazil to that of other countries, suggesting that the lack of modern equipment sometimes led to less sophisticated production processes in the textiles industry in Brazil:

“There are things that I only see in Brazil. In the production process of carpets, after the carpets leave the yarns machine they go through a process that applies the backing material and then latex on top of the backing to fixate. Then they go to the oven to dry the latex. In Brazil, once I saw them applying the latex manually with a brush, rather than having a machine to apply it, and then they took the carpet to the sun to dry it. Only in Brazil” (YarnsCoEU_SM)

The sales manager of BackCoJC, a Brazilian firm that supplied backing material to the case study focal organisation, suggested that the Brazilian industry could not compete with some imported products due to the lack of the machinery needed for the production of those items in Brazil. He explained that this was not the case only for his company, which manufactured backing materials, but also for all firms down the supply chain in the textiles industry. As an illustration, he narrated an occasion when he had attended a trade fair in Brazil where he spotted a Chinese product that, if made in Brazil, would be more than three times' expensive as the imported one. He expressed his own disbelief when he heard the price of the product when it had been imported from China.

“This carpet here, for example, my client makes it like this and delivers to a retailer, for example, at R\$45 per square metre. The same carpet from China arrives here for less than half the price... Last year we exhibited our products in a trade fair with focus on home textiles - bed and bath, curtains, carpets, and so on. At the end of the corridor there were only Chinese. Our stands were empty, and theirs [were] crowded. Just out of curiosity we went there and visited. There was a carpet there which was beautiful, in 3D, this and that. I was talking to a client of mine who knows a lot about this business and [I asked]: ‘How can you do something like this?’ and he said that there were no machines here in Brazil to do this... I asked: ‘If it were made in Brazil, how much [would it cost]?’ He said that it would be around R\$140, R\$150 per square metre. Then I asked the Chinese how much it costed. He answered in English and in US\$, and I said ‘I think I didn’t understand – how much?’ I made the calculations, it was R\$40-45, compared to R\$150. So, when you talk about competitiveness, we lose a lot with this.” (BackCoJC_SM)

The sales manager at BackCoJC further explained the difficulties that his company faced in seeking to invest in modern equipment. The manager explained that the lack of manufacturers of machinery within the country forced the company to import, and also referred to the complexity of the importing process.

“...first there is the issue of the taxes... there is the matter of protecting the national industry. For example, if I import a weaving machine, a second-hand weaving machine. To be able to import that, first you need to search the country to see if there isn’t a national manufacturer of that machine, similar to that one that you are trying to import. There isn’t. In Brazil no one makes projectile weaving machinery. In the past 4 years I imported 12 weaving machines, if I’m not mistaken, 4 lots of 3. First lot, yellow channel. Second, same specification, lot in yellow channel. Third and fourth, same thing. You see? You have a process that you make like the previous one and... it gets stuck. We brought an extruder here too. It was in the port for almost 40 days, in the yellow channel. Then you need to go there, explain... maybe you need to convince in a different way. It’s

too much bureaucracy... if there were national manufacturers it would be much easier. But today there is no incentive for the production of machinery here in Brazil. It's a shame." (BackCoJC_SM)

In addition, the same manager suggested that the competition from abroad even threatened the business continuity of firms in the textiles industry in Brazil.

"Today, an entrepreneur like Mr. (Owner) is tempted to shut everything down – every, everything, terminate almost 1,200 workers – and bring products from abroad. Just resell. They even come with a label with the company's logo if he wants." (BackCoJC_SM)

In fact, BackCoJC had recently lost the bid to supply one of their products to the case study focal organisation (CarpetCo). The supply chain manager of CarpetCo explained that the company was forced to keep high levels of stocks given that the importing process in Brazil was too slow, and for that reason the company had sought to change to a national supplier. They purchased a sample of backing material from BackCoJC, but the material had a lower quality than the imported one, thus the company decided to continue to import from the external supplier. The quality manager at CarpetCo explained how, given the low quality of the Brazilian product, the attempt to buy this backing material from the local supplier caused a loss to the company.

"We developed a backing with BackCoJC. They did it, but when it got here it broke. We had a loss of 350 square meters of carpet, because they did not have the necessary traction. They are trying to adapt." (CarpetCo_QM_Fup)

The low quality of the national product compared to imports had also influenced CarpetCo's choice of suppliers of yarns. CarpetCo bought yarns from three suppliers, two from the external and one from the internal (Brazilian) market. However, the supplier based in Brazil did not manufacture the yarn in-house; instead they resold yarns purchased from abroad. CarpetCo had tried to buy yarns from a national

manufacturer in the past, but product quality was inadequate and the attempt was unsuccessful, as explained by the quality manager.

“We have already tried to [buy from local suppliers]... but they cannot deliver technically, so we are forced to buy from abroad. They cannot deliver the colour; they have quality problems... so it becomes very expensive. We made two attempts with yarns...but they did not deliver [on quality]... With yarns is complicated because, for example, there are some colorants that cannot be used, but they only have these ones. Or they should use a specific polymer, and they don't have it. Another example – there is a component which works like a sunscreen for the yarn, so that it doesn't burn throughout the production process. But in the end this component needs to be removed, and the yarn got here with this component on it many times... They did not have the capability to remove it, then this caused problems of quality.” (CarpetCo_QM_Fup)

5.1.2 Taxation and the “Brazil Cost”

Taxation was one of the core elements that influenced the textiles industry in Brazil. Many interviewees referred to the tax burden and the high complexity of the tax system in Brazil as a major factor impacting the competitiveness of the Brazilian firms (FedBR_CEO, FedReg_DevM, Bank_BusM, LatexCo_BusDir). This sentiment was echoed by interviewees from the national and regional branches of the employers' federation:

“[The tax burden is] the worst possible. I'm not even saying that it is too high; it is too high and too complex. So just the cost that you have to be in compliance with the Brazilian legislation is already absurd...” (FedBR_CEO)

“[The tax burden] impacts the competitiveness absurdly [in the textiles industry] as in any industry in Brazil. Statistics show that you work more than four months just to be able to organize the bureaucracy... This is a matter of excess of burden and of complexity, bureaucracy. I do not

know what is worse, sometimes I tend to think that the bureaucracy is more expensive and more complicated...” (FedReg_DevM)

In fact, it was suggested that the term ‘Brazil Cost’ was widely used throughout the country to refer to all of the factors that increased the costs of operating in Brazil and that consequently decreased competitiveness, which included the high tax burden and bureaucracy, as explained by the CEO of the National Industrial federation.

“We also have something that we cannot go without mentioning which are these internal costs, the infamous Brazil cost - cost of transport, cost of bureaucracy, legal costs, etc.” (FedBR_CEO)

The business director of LatexCo, one of the case study focal organisation’s suppliers, explained that the failure of the government to turn tax collection into investments in infrastructure was negatively impacting on the entire productive chain in the industry.

“In my opinion [the tax burden in Brazil] is completely out of reality for our country, out of reality for the international standards, and it burdens too much the production chain, making the businesses non-competitive. Especially because there is little return for all the taxes you pay. If there were investments for everything that you pay in structure, in improvements, more ports, more roads, more infrastructure, water, sewage, energy, all this would facilitate the production chain. Better roads, train lines. But that does not exist. Then you end up burdening the chain, and we do not see the benefit in this process. So the tax burden is terrible. It is totally disproportionate to the reality of our economy, of our industry, of our reality. It needs to be reviewed. There are [value added] tax rates of 4%, 7%, 12%, and 18% in the same country. This is just one example. Each state does what they want, the way they want and at their convenience, practically. This should be standardized, [should] be equal for everyone. No double standards” (LatexCo_BusDir)

As explained above, one of the reasons for the negative outcomes was the lack of consistency across the country and consequently the large amount of bureaucracy that was necessary in order to ensure that companies complied with tax regulations, with potential impacts on regional collaboration and inward investment.

5.1.3 Government initiatives: incentives for local content

Aiming at protecting the national industry, the Brazilian government had introduced many incentives for manufacturers to use national suppliers; therefore, this was an important factor that influenced the choice of suppliers in the textiles industry. One of the government incentives for local content that affected the textiles industry was related to sales to Mercosur (the South American economic bloc formed by Argentina, Brazil, Paraguay and Uruguay). This incentive determined that exports to Mercosur were free of taxes, as long as a certain percentage of the sales price of the exported product was related to costs incurred within Brazil. These costs could be related to either material purchased from Brazilian manufacturers or to labour and/or service costs. The percentage of Brazilian costs depended on the type of product exported, and in the case of CarpetCo's product the amount required was 60%, as explained by the External Trade manager.

“...it depends on the product; it depends on the tax classification. In our case we must have around 60%. It must have an alteration, actually. For example, I import yarns, I cannot export the yarns and add 60%, say it is packed or something like that. I have to export something made out of that yarn. So I import the yarn and export the carpet. It had an alteration and had an increase of 60% of national... Alteration and 60% increment... I have to aggregate 60% of value, not material. If I sell for ten, six must be from here - labour, raw materials; and 40% can be imported.”
(CarpetCo_Comex)

This incentive impacted CarpetCo's choice of supplier, given that CarpetCo sought to use national suppliers in order to be eligible for this benefit, as indicated by the External Trade manager below.

“We try, despite the difficulty, to broaden our range of suppliers within Brazil, so that we can export with the certificate of origin. In order to be able to export with the certificate of origin, my product has to have 60% of nationalization, of its price. So, for that reason, I need to have more national materials.” (CarpetCo_Comex)

For example, CarpetCo purchased one of their raw materials (a type of backing) from a Brazilian firm even though they could import the same material for a lower price, just in order to obtain 60% of nationalisation of their product and be able to export to Mercosur free of taxes, as explained by the supply chain manager.

However, despite the tax incentive, sometimes the quality of the national material was inadequate and CarpetCo opted to import the materials. For example, as explained above, CarpetCo purchased yarns and another type of backing from abroad because the quality of these materials from the Brazilian suppliers was inadequate. The choice of supplier for each type of material will be explained in more detail in chapter 7.

5.2 External environment: the social context in the Brazilian textiles industry

This section explores the institutions that influenced the social context in which the focal organisation operated. This section covers employment legislation, the role of trade unions, and the role of industrial federations and educational institutions in the provision of training.

5.2.1 Employment legislation

Brazil had a comprehensive labour system aimed at protecting labour rights which was in accordance with the international standards, as explained by the CEO of the national federation and echoed by the industrial director within the case study focal organisation:

“[We have] free trade unionism, collective agreements, wage negotiation, social clauses, and economic clauses. We are the International Labour Organisation’s darling” (FedBR_CEO)

“...we know that Brazilian law is very... It's massive. The workers are very well protected in this country. If you implement what is required, I would dare to say that in some points is much further here than other countries...in terms of Human Resources, or looking after your workers. Because if you see what happens in South Africa or in other countries, or in China, or wherever... The other BRICS in the world. Brazil must be one of the main players on that issue... Brazilian workers are very well protected in this country” (CarpetCo_IndDir)

However, such comprehensive employment legislation did not guarantee regulation enforcement. For example, the CEO of the national federation acknowledged that there were some informal businesses in the industry:

“[The textiles industry in Brazil] has informal businesses, alike any other country in the world... it is a formal sector, which complies with the legislation, but there are some [businesses] which are not [formal]... and obviously these ones need to be punished” (FedBR_CEO)

The CEO of the national federation also admitted that some cases of forced labour involving immigrants from Bolivia had been recently identified in the textiles industry in Sao Paulo, although he said that this was not a common practice in Brazil.

“Forced labour there were some cases identified in the city of Sao Paulo involving the immigrants... but this is not a practice, this is an exception. [This is] because there are controls, there are trade unions, there is the Ministry of Labour, everything” (FedBR_CEO)

Perhaps not surprisingly, there was a general feeling among employers that there should be deregulation of employment rights. According to the CEO of the national federation, the labour system was too complex and too bureaucratic, which harmed small employers in the textiles industry.

“[The labour system in Brazil] is highly standardized; it is highly complex; it assumes that one side is totally underprivileged, i.e. has no ability to

defend its rights – the labour side, and that the other side is totally over privileged - that is the employer side. In fact, they forget that we have thousands and thousands of small employers who suffer as much or more than the biggest [firms]. So, I think that Brazil has a complex labour law and here I'm not talking about labour rights, questioning labour rights, but it is a very comprehensive system and it's very bureaucratized and which originates an over judicialization of relations that is unique in the world” (FedBR_CEO)

The CEO of the national federation suggested that the Brazilian industry would benefit from relaxing the employment legislation, and he believed that this would stimulate investment in the Brazilian industry. In the literature of employment issues there are divergent opinions regarding whether decent work and equality should be promoted by employment legislations or by a firm’s own diversity management initiatives (Risberg & Sørderberg, 2008; Greene, 2005; Lorbiecki & Jack, 2000). While some stakeholders argue that firms prefer to introduce their own codes of conduct rather than being forced to comply with legislation, others would argue that if firms are not obliged to implement diversity policies, nothing will be done (Greene, 2005).

“The Government doesn’t have to do more; the Government has to do less and well done. So, what it can do today fundamentally is to create a more predictable and less bureaucratized and stimulating investment business environment. If they do that: simplify the life of who produces, giving more transparency to their rules and regulations...” (FedBR_CEO)

The social affairs manager of the regional federation had a similar opinion. She believed that the labour legislation in Brazil was outdated and that it should be more flexible.

“I think one of the biggest complaints is the question of labour costs, all taxes placed on the payroll. And the lack of flexibility too, our legislation is... If you think of our labour law is there since the 50s, and so reviewing, maybe make it more flexible, ease things both for the employee and for

the company, a relationship more in the reality of the times we live, of transformations.” (FedReg_SaM)

In terms of equality, within the Brazilian employment legislation some types of jobs (referred to as job categories) were regulated by a base pay, which were covered by the bargain agreements. Therefore, this regulation arguably promoted equality in terms of pay, because this regulation determined that employers had to pay the same salary for all workers in the same position, irrespective of gender, religion, race and ethnicity. It is important to note that the regulated base salary was not the same as the minimum wage – while the minimum wage was universal, the base salary was the defined salary for a particular job “category”, which should be equal or above the minimum wage. The sentiment that the regulated base salary promoted gender equality was echoed by the CEO of the national industrial federation and by the consultant of the regional federation:

“...there is vulnerability [for women] in terms of salary irrespective of the industry. This difference happens. It is lower in some cases when, for example, the jobs are regulated by a base salary. Where there is fixity, the difference is not so big...” (FedReg_Cons)

“There are base salaries - there are job categories - so they work, there isn't a big difference because there are compatible salaries... a female spinner and a male spinner earn the same. There is no discrimination in this [job] profile” (FedBR_CEO)

However, the legislation regulated the base salaries only for jobs within the factory floor. Therefore, it did not help to promote equality within other types of job (e.g. administrative jobs), as suggested by the CEO of the national industrial federation.

“...But I am talking about the factory floor, if in an office there is one ‘here’ and one ‘there’, I don't know...” (FedBR_CEO)

Additionally, pay in the textiles industry in Brazil was relatively lower than for many other sectors, as acknowledged by the CEO of the federation, and the textiles

industry was female dominated, with 75% of the jobs in textile being undertaken by women (FedBR_CEO).

“...This is not the industry that pays the highest salaries, but it is, in volume, the fourth biggest payer of salaries in the manufacturing industry in the country. So, this is an industry with very tight margins, with a lot of competition. I won't say that it pays more than the oil and gas industry because this is a lie...” (FedBR_CEO)

Moreover, given the acknowledged low regulation enforcement and existence of many informal businesses in Brazil, this regulation's potential to promote equality was arguably limited (irrespective of the type of job and of the industry).

5.2.2 The role of the trade unions

The main role of the trade unions in Brazil included negotiating annual collective bargaining agreements with employers. These collective agreements included clauses regarding work conditions for all employees, including pay and benefits, work hours, work shifts, collective annual leave, health and safety policies, and so on. The role of the trade unions in Brazil also included monitoring compliance with the clauses agreed in the collective bargaining agreement. However, the strong presence of the trade unions did not guarantee the enforcement of the agreements. For example, the president of the trade union of the textiles industry said that they only monitored the employment practices of companies when someone reported wrongdoing, because they did not have time and resource to monitor companies.

“[We investigate employers] only if someone reports. Because it is complicated for us, there are few people here to do the work. It's too much for us to see, we can't take care of everything. Because today all trade unions have a lot of difficulty with money” (TrUn_Pres)

Therefore, it could be argued that the lack of resources reduced the benefits that the trade unions could offer to employees, given that this resulted in a low enforcement of the benefits negotiated in the trade agreement. On the other hand, the financial resources available for trade unions were paid for by the employees.

Some interviewees expressed the belief that there was no value for money for the contributions they were paying to the trade unions. For example, the HR manager at CarpetCo said that trade unions demanded too many contributions from employees (payments of fees to trade unions), but with no value for money to the employees because the collective bargaining agreement was the same every year, and that the trade union would simply sign the same agreement every year and charge fees for this.

“Most of the times I think they [the relationship of companies with trade unions] are [bad]... because they want the company to pay, pay, and pay... not to the employees... they negotiate the collective bargaining agreement, [but] they usually don’t add any value to the agreement, it’s the same agreement every year, but they want contributions from the company. It’s contribution of I don’t know what, it’s assistance... And sometimes the company... there’s a law for everything, you know? If it’s due, the company will pay for it, otherwise the company will not pay. So, they have this [thing] with the companies. But this is overall.”
(CarpetCo_HRM)

The hostile relationship between trade unions and employers could arguably reduce the benefits that the trade unions could offer to employees.

5.2.3 Industrial federations

The industrial federations seemed to be important actors in the external environment to firms in the textiles industry in Brazil. These federations served all industrial sectors and were organized both at the national and regional levels. As explained by the social affairs manager at the regional industrial federation (FedReg), the role of the regional federations included representing the interests of firms (employers) to the government and trade unions, as well as providing support in a range of areas such as health and safety, training and education, social responsibility, gender equality, and projects aimed at increasing competitiveness. Also, as explained by the social affairs consultant at FedReg, the regional industrial federation sought to act as an “example” for other firms in terms of good practices.

“...we are an organisation that promotes new technologies and new postures... in terms of business model, [and] of behaviour for the industries. So, we seek to be an example in this sense. Especially with regards to a topic that is so difficult to be assimilated by companies [gender equality]. So, we have this parallel work. We do this work [promote gender equality] inside the organisation and we also provide consultancy outside” (FedReg_Con)

The national federations had a similar role to that of the regional federations as explained above. As explained by the CEO at FedBR, one of the roles of the national federation was to represent the interests of the firms in the industry to the government, but this was at a more national level compared to the regional federations. For instance, while the regional federations dealt with the regional (state) authorities, the national federations dealt with the national government. In parallel, the national federations also conducted projects to help the industry to achieve increased competitiveness.

“...[we] have the fundamental mission of representing the legitimate and transparent interests of the textile industry of Brazil... we have in parallel all the aspect of representation in administrative institutions, relationships with Governments, etc.; but also, we conduct projects linked to free enterprises, such as competitiveness, and productivity projects, internationalization, innovation programs and management. So, we have two very strong pillars: the pillar of the institutional representation, which means bringing together fundamental demands of the sector, turning them into something that's designable for a discussion with the federal Government mostly-including the legislative, the executive, the judiciary; and in parallel conduct these agendas that we understand to be the most relevant for competitiveness.” (FedBR_CEO)

The industrial federations also played a role in monitoring employment practices across the entire supply chain industry, as explained by the CEO at FedBR:

“[Monitoring employment practices down the supply chain] is something that has become relevant with this inter-connection of the productive chains and retailers have been paying a lot of attention on this subject and we are working in conjunction with retailers to have a monitoring process from source to final product in order to, in this whole production chain, have a proper compliance. Brazil manages that well” (FedBR_CEO)

5.2.4 Professional educational institutions

One of the arms of the regional industrial federations provided technical and professional courses according to the specific needs of the industries. As explained by the development manager of the regional industrial federation, companies in the textiles industry were not investing enough in training, thus the industrial federations had an important role in providing qualification for workers. According to the manager, companies did not invest in training because they believed that after being trained their employees would be recruited by other firms, a phenomenon that the manager called “labour cannibalism”.

“We see companies not investing in training of skilled labour because other companies that pay a little more will take away the professional that they have qualified. Then we must accept the role of taking an industry with thousands and thousands of micro, small and medium enterprises and train skilled labour. Local training doesn’t happen a lot because there is so-called labour cannibalism. So, it seems clear that this is a sector with problems with its dynamics” (FedReg_DevM).

The CEO at FedBR expressed the opinion that the industrial federations were indeed helping Brazil to move forward in creating a strong network of training and qualification institutions, which in turn benefited the industry.

“I think we have a very interesting network and Brazil has evolved because... in this country is very clear- we're not operating on the frontier of technology, in the maximum level of knowledge; and we're not a cheap country. So, we're kind of "stuck in the middle", seeking our

route of development. And it cannot, in our view, go back, it can only move forward. And for that we need to have a country plan, a nation plan - a nation project, a project of State...So we are creating this network... this approach of universities with companies is increasing. It's not like the United States, where the research is much more directed. Here there is still a little rancidity, that the researcher has to be free and independent and not at the service of capital... There is some of that vision of the thinker, of pure research, and then whoever wants do the application, a model a little different from the American model. I think it is neither for one side nor for the other. What we should have is this mix. More independent research, purer; and more targeted research where companies can act more. For this, the business environment is very important because it promotes, trains, generates more perspective of this investment that is high risk... But there is a logic that this greater integration of universities, research centres, with businesses is important. Brazil is moving forward in this. Brazil has credit lines. Sometimes, however, they are very bureaucratic and hinder their access. But I would say this is a chapter in which Brazil has evolved... I have visited a lot of research and teaching institutions, [and I have told] them that this approach is relevant and is fundamental. So, I think Brazil is qualified to evolve in this process" (FedBR_CEO)

5.3 Summary

This chapter explored the institutions that impact upon the textiles industry in Brazil. The textiles industry in Brazil was struggling to compete in price with low cost countries (e.g. China) and in quality with high-end technology countries (e.g. European countries). It was argued that one of the reasons why Brazil struggled to compete in price was because of the "Brazil cost", which encompassed high bureaucracy and high taxes (including value added tax, income tax and social security taxes). In terms of quality, one of the reasons why the textiles industry in Brazil was not competitive was because there was difficult access to high-end technological machinery in Brazil. There were no Brazilian manufacturers for some types of machinery, and the costs for importing were too high. Additionally, the clearing process of imports was also too bureaucratic and slow, making it even

more difficult for Brazilian firms to obtain modern machinery. The high taxes and bureaucracy related to the importing process also affected the acquisition of raw materials from abroad, which forced companies to keep high levels of stock of imported materials, further increasing costs.

In terms of employment practices, Brazil had a comprehensive labour system which was in accordance with the international standards (e.g. ILO). However, such comprehensive employment legislation did not guarantee regulation enforcement and the protection of rights for all workers. For example, one of the roles of the trade unions was to monitor employment practices in the industry, but the trade unions only checked companies when someone reported wrongdoing, because they did not have enough resources to monitor all companies. Also, it seemed that the relationship between employers and trade unions were somewhat hostile rather than collaborative, reducing their prospect of working in the interests of the employees. In addition, it seemed that employers considered the Brazilian labour system too burdensome, making it difficult for employers to cope with it (especially small businesses) which, in turn, could lead to informality. As for formal businesses, the high costs of compliance with the employment regulations seemed to act as another element of the “Brazil cost”, decreasing the competitiveness of the Brazilian industry.

In relation to equality, within the employment legislation there was a regulation that determined “base salaries” for each job “category”, which promoted equality in terms of pay, because employers had to pay the same salary for all workers in the same position irrespective of their gender, religion, race and ethnicity. However, this regulation seemed to be promoting equality in terms of pay only for certain types of jobs. Also, the unsatisfactory regulation enforcement as well as the acknowledged existence of informal businesses reduced the potential of this regulation to promote equality in the Brazilian industry.

The institutions that impacted upon the textiles industry in Brazil identified in this chapter will form part of the institutional context in which the case study focal organisation operated. The next chapter will introduce the case study focal organisation and its supply chain.

CHAPTER 6: CASE STUDY FOCAL ORGANISATION AND ITS SUPPLY CHAIN

As explained in the Methodology chapter, this research uses a case study that focusses on a Brazilian textiles company and its supply chain. The previous chapter explored the institutions within the textiles industry in Brazil, which form part of the institutional context within which the case study focal organisation operates. This chapter will introduce the case study focal organisation and its supply chain. The first section will explain the focal company background and explore its intra-firm dynamics. The following section will describe the company's supply chain and explore the dynamics of the inter-firm relationships across the supply chain. The chapter ends with a summary.

6.1 The focal organisation and its intra-firm dynamics

The case study focal organisation operated in the textiles industry in the household segment, manufacturing floor covering products. The company started operating in Brazil in the early 2000s and was part of an international family business group with operations in several countries across the world. This section explains the focal company background, including its ownership structure, organisational structure, and some of the intra-organisational dynamics.

6.1.1 Ownership structure

The case study organisation (CarpetCo) was part of a group of companies with operations in several countries around the world (TexCorp). TexCorp was formed when an international family business (GranTex), was split up into several companies in the early 1990s. After the split, each child of the previous firm's founder received a separate company. The entrepreneur who inherited one of these newly created firms soon formed his own group of companies (TexCorp), through both acquisitions and new ventures. All of the companies in TexCorp operated in the textiles industry, and they were vertically integrated, taking the product through the whole process, from raw materials to final products. CarpetCo operated in the household segment, specialising in floor covering products. It started operating in Brazil in the early 2000s. At the time of data collection

CarpetCo had one plant that employed approximately 100 workers, and they also had a small sales office with approximately 7 employees.

After the split of GranTex, some of the heirs of the other firms later merged and formed their own business conglomerate (DutexCorp). Although CarpetCo did not have ownership connections with the companies that were part of DutexCorp group, it maintained close relationships with these companies. Some of these relationships and the ownership structure are shown in Figure 6.1.

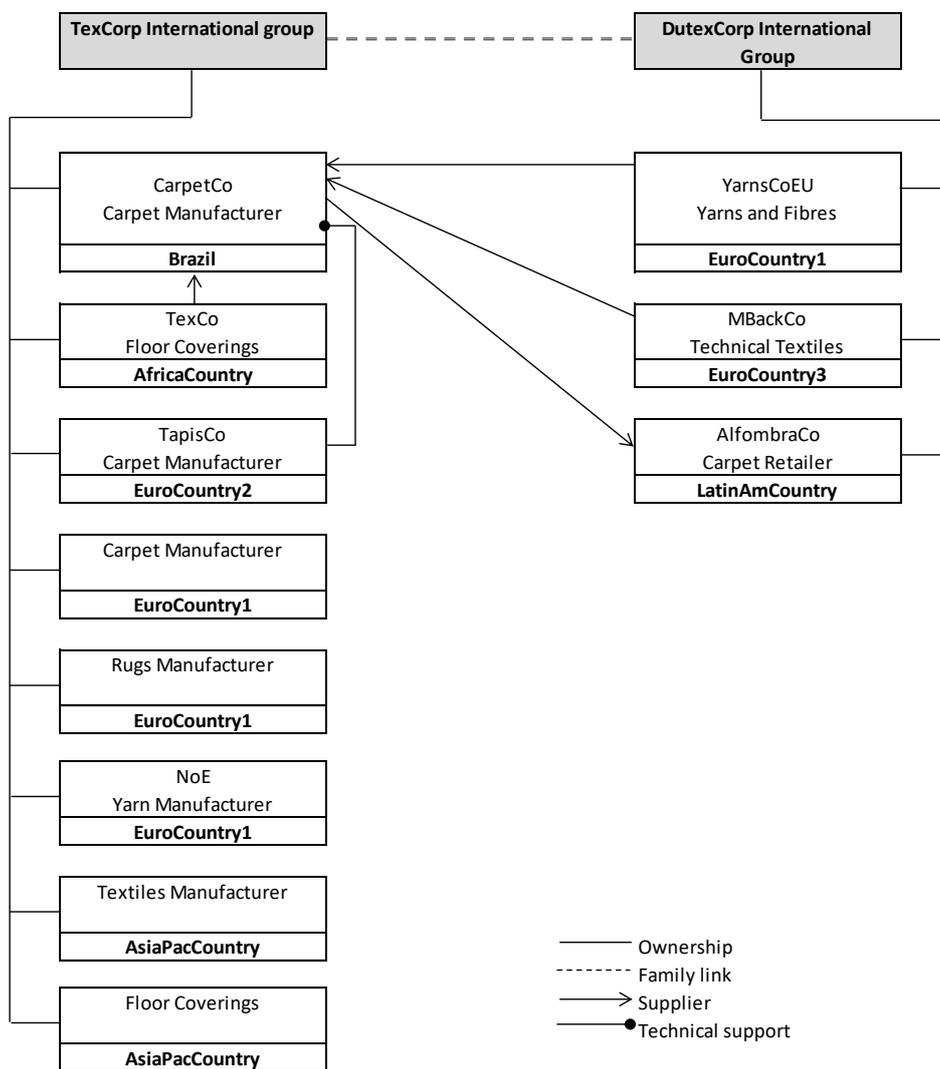


Figure 6.1: Ownership structure (Source: author)

6.1.2 CarpetCo's organisational structure

TexCorp's Headquarters (HQ) was located abroad (the country has been omitted to maintain confidentiality), and the administrative functions of CarpetCo were based locally in their main plant. CarpetCo was divided into three main divisions: Sales and Marketing, Production Management, and Accounting and Finance. The Production Management division accounted for approximately 75% of the workforce, and it was a male dominated division where 3% of workers were women. The Sales and Marketing division accounted for approximately 8% of the workforce, where 43% were women. Accounting and Finance accounted for approximately 16% of the total workforce where 73% were women. In the company as whole, 80% of employees were men. CarpetCo's Organisational Chart is represented in Figure 6.2.

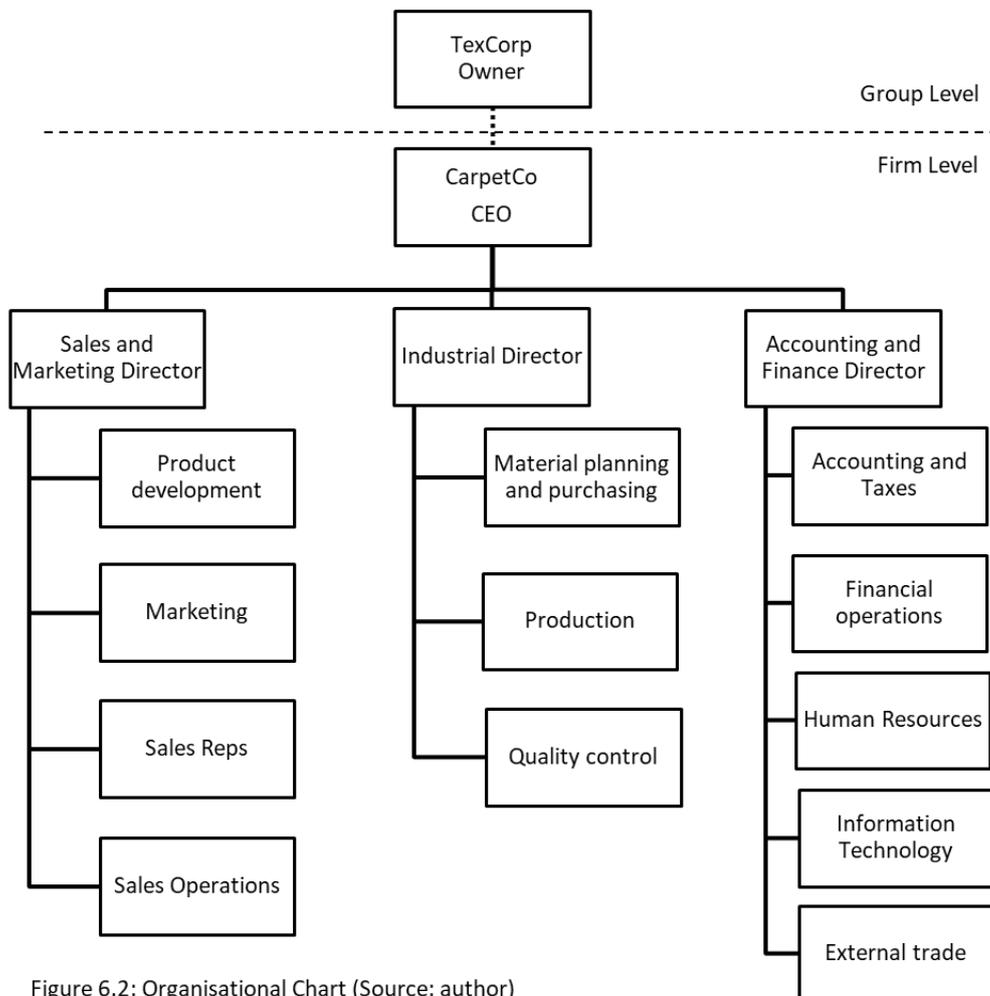


Figure 6.2: Organisational Chart (Source: author)

Accounting and Finance division

As shown in Figure 6.2, the accounting and finance director was responsible for the departments of Accounting and Taxes, Financial Operations, as well as Human Resources Management, Information Technology (IT) and External Trade. The Accounting and Taxes department had two employees, including the accounting manager and one accountant. They were responsible for both Management and Financial Accounting activities. Their main responsibilities included the preparation and reporting of the company's financial statements, cost calculation and price formation. Human Resources (HR) management was a small department with only one permanent employee (HR manager) and one contracted health and safety advisor. Although arguably unconventional in many countries, HR management was under the Accounting and Finance division seemingly because of the department's small size.

Supply chain management

Supply chain management was divided into two departments, and each of them was under a different division. The first department was under the Production Management division and was responsible for buying materials from national suppliers as well as for planning material needs for the production. The second department was under the Accounting and Finance division and was responsible for the external trade – interacting with both customers and suppliers from the external market coordinating the import and export processes. However, the external trade department had no decision-making power in relation to the supply chain (e.g. choice of suppliers), and only handled the daily operations related to trade with the external market (e.g. processing purchase and sales orders, processing invoices, coordinating import and export processes with Brazilian authorities).

The role of the Accounting and Finance division in the supply chain management

Accounting information plays an important role in many areas within supply chain management, such as, for example, make-or-buy decisions (Seal et al., 1999).

However, in this study it is important to make a distinction between accounting and the accountants (Accounting and Finance division). Within CarpetCo, it seemed that the Accounting and Finance division had a rather 'traditional' role of producing 'post-factual' accounting information such as calculating the cost of goods sold and preparing financial statements; while some of the strategic management accounting information were produced by other divisions. For example, customer accounting, which involved segment and customer profitability analysis, was controlled by the Sales and Marketing division. In fact, the relationship of the accounting and finance director with CarpetCo's customers was mainly limited to financial operations (payment).

"...if I need to visit my clients they get scared. At the beginning, 10 years ago I used to visit them to get to know them, to know who I was selling to, where my product was going to. And the clients would come to the factory to see who they were buying from. But today we already know 100% of our clients. The company doesn't have a large range of clients... So today, when I visit a client, it is when someone owes me [money]" (CarpetCo_FinDir)

Similarly, the relationship between the accounting and finance director with CarpetCo's suppliers was limited to issues related to financial operations. Moreover, the Accounting and finance director explained that, although she was sometimes involved in the negotiations of price with suppliers, the ultimate decision was made by the industrial director.

"[My relationship with the suppliers is] completely superficial. Many times, they call me due to a negotiation, but it's to ask for a longer payment term, to discuss this kind of thing... if I check with the accounting manager and see that there will be an impact of 5% with cash payment, I will further negotiate that. But if the industrial director tells me that with or without 5% they want the yarn from that supplier, it's decided – the yarn will be from that supplier. I don't get involved, because I will only hold to the matter of payment anyway" (CarpetCo_FinDir)

The accounting and finance director further explained that she had virtually no control over decisions related to the supply chain management, such as the selection of suppliers. For example, she explained that the selection of suppliers was controlled by the sales director together with the industrial director.

“[My control over the selection of suppliers] is practically nil. Supplier is with the sales director and with the industrial director, because it requires technical knowledge, 100%. Grammage of the yarn that will be used, etc... These areas define this. So much so that I don't even know [the supplier], I don't visit. The ones who visit are the department of product development, the sales division, the industrial division... they go wherever they have to go to see who they are buying from, who they are negotiating with” (CarpetCo_FinDir)

Make-or-buy decisions seemed to be made at senior management level (directors, CEO and HQ), with little involvement of the accountants within CarpetCo. Each of these management accounting practices will be further explored in subsequent chapters.

6.1.3 CarpetCo's approach to managing social issues

In order to help understand the internal factors that influenced the use of SCA practices in the case study organisation, the previous section explored some of the intra-organisational dynamics, including the organisational structure and the departmental roles, providing insights into the embedded power dynamics. This section continues to explore the intra-organisational dynamics by exploring some of CarpetCo's employment practices and social impact which provided insights into organisational culture and, moreover, which enabled this study to understand the potential impact of the CarpetCo's organisational practices across its supply chain and on the development of Brazil.

6.1.3.1 Employment practices

Overall, interviewees within CarpetCo seemed to believe that CarpetCo had better employment practices than other companies in the same industry and/or in the same region. For example, in terms of pay, both the finance director and the HR manager affirmed that CarpetCo paid much higher salaries to its employees in comparison to other firms in the textiles industry in the region. The finance director explained that while the practice of other textiles firms in the region was to pay the base salary determined by the regulation, CarpetCo paid wages above the base salary; and that, while the practice of other textiles firms in the region was to give annual increases limited to the inflation rate, CarpetCo had the practice of giving annual increases corresponding to the inflation rate plus a real salary increase. The finance director further explained that CarpetCo sought to benchmark its practices with companies from other industries within the region and with companies from other regions, because CarpetCo judged the firms in the textiles industry in the region to be too far away from CarpetCo's practices.

In terms of benefits, the HR manager suggested that CarpetCo's practices were better than those of other companies in the region. She explained that CarpetCo offered a comprehensive package of benefits to all employees, such as private health and dental insurance, life insurance, food and transport, and she said that CarpetCo's practices in terms of benefits were better because most benefits provided by CarpetCo to its employees were fully paid by the company (100% of the amount of the benefits with no salary sacrifice). According to the HR manager, not only was the salary of CarpetCo's employees higher, but the amount of the "take home pay" of its employees was higher, given that the company offered a higher coverage of benefits. For example, CarpetCo provided private health insurance to its employees, and the company funded 100% of the costs of the insurance, therefore there was no salary sacrifice for CarpetCo's employees. Meanwhile other companies funded only a percentage of the insurance, where the employer would pay the health insurance firm and later discount the percentage corresponding to the employee's contribution to the plan from the employees' pay at the end of the month (salary sacrifice).

Interviewees within CarpetCo also believed that they enjoyed high employment security. For example, the HR manager explained that the staff turnover within CarpetCo was low, and staff retention was high, as there were many employees who had been working for the company for many years. The accountant echoed the perception that CarpetCo provided high employment security to its workers. She said that CarpetCo avoided making use of redundancies and that the culture of the company was to try to resolve any occasional issues with employees (for example, frequent absenteeism or late arrivals) before considering dismissal. Moreover, the HR manager explained that CarpetCo also avoided employing temporary workers. She said that all CarpetCo's employees had permanent contracts, and the only temporary workers within the company were the porters and cleaning workers who were contractors (hired through an agency). The industrial director also explained that whenever CarpetCo needed to increase the workload within the production for a period longer than a few weeks, the company would rather hire new employees than make use of temporary workers. One of the reasons for this was because within the Brazilian legislation permanent employees and temporary workers had the same rights. The industrial director also showed scepticism in relation to the firms that provided temporary workers.

“We don't like to do that, because the Brazilian law provides that we have to pay exactly the same. It's better to employ them than to have temporary people. Also, the firms that provide this people are usually... not the best companies in the world” (CarpetCo_IndDir)

These findings suggest that, as expected during the case study organisation selection process, CarpetCo provided a best practices case study, despite some limitations and areas for improvement which will be discussed throughout this thesis.

6.1.3.2 Gender institutions

Interestingly, the gender patterns within CarpetCo were not the same as the general pattern in the textiles industry in Brazil. As explained in chapter 5, the textiles industry in Brazil was a female dominated sector. CarpetCo, on the other

hand, employed more men than women in general. As explained in the previous section, CarpetCo was divided into three main divisions: Sales and Marketing, Production Management, and Accounting and Finance. The Production Management division accounted for approximately 75% of the workforce, and it was a male dominated division where approximately 97% of workers were men. Within the Sales and Marketing division, approximately 43% of workers were women. Within the Accounting and Finance division, approximately 73% were women. In other words, both the production and sales divisions were male dominated. It is important to note that while the production processes of most firms in the textiles industry involved sewing and other labour-intensive activities which tend to be female dominated, CarpetCo's production process was largely capital intensive.

“...in the factory there is no other way.... they have hired women in the past but it did not work, because it is heavy work. In the administrative division we don't make this distinction...” (CarpetCo_HRM_Fup)

Despite the notable gender segregation, CarpetCo seemed to maintain gender equality in terms of employment practices. For example, the HR manager explained that all the benefits were provided in equal terms for men and women. In terms of pay, both the HR manager and the finance director said that men and women working in similar positions within the company earned equal salaries. The interviewees made reference to the employment regulation that determined wages by job category (as explained in chapter 5) as evidence of CarpetCo's gender equality in terms of pay. However, it is important to note that the same interviewees had previously affirmed that CarpetCo paid higher wages compared to other firms in the textiles industry in the region where the company operated. Given this study's lack of access to accounting and cost information, it was not possible to verify whether the amount that CarpetCo paid to its employees in excess of the minimum pay required by the regulation was equal for men and women doing similar jobs.

6.1.3.3 Labour skills and educational levels

CarpetCo's provision of education support and training to its workforce is important not only to understand the intra-firm dynamics that impacted upon the SCA practices used by the organisation, but also for understanding the potential impact of the CarpetCo's organisational practices on the development of Brazil. The educational levels within CarpetCo varied depending on the division. In the administrative functions, the majority of employees had higher education, and the minimum educational level was secondary education. In the production functions, the majority of workers had secondary education, but some workers had studied only until the foundation level. According to the HR manager, this was the case with older employees within the production division. CarpetCo funded educational courses to employees, including English language courses and even graduate degree (university). The accountant told that there were two employees within CarpetCo undertaking graduate courses fully paid by the company at the time of the interview. However, the accountant said that there was not a clear criterion for determining whether the company would fund a course for an employee. She further explained that the funding was available for all employees regardless of hierarchical position and company division, but that these decisions were made on an ad-hoc basis with no clear criteria.

In terms of provision of technical skills training, CarpetCo provided mainly functional training (directly related to the job), but professional development training (e.g. leadership) were generally not provided, as explained by the accountant. For example, the company paid for employees to attend external training on changes in the tax legislation for tax accounting purposes. These functional training also provided networking opportunities for staff. The finance director explained that these courses were important because this was a requirement for international quality certification held by CarpetCo (ISO 9001 and ISO 14001, both issued by the International Organization for Standardization – ISO). She further explained that these training were either fully or partially funded by company, depending on the relevance of the training to the role of the employee. The finance director further revealed that sometimes even if the training was not directly related to the employee's role, but the employee was good, the company would give "a helping hand" (CarpetCo_FinDir).

6.2 Case study supply chain and inter-firm relationships

The previous section explained CarpetCo's background and explored its intra-firm dynamics. This section will focus on CarpetCo's supply chain and will explore the dynamics in the inter-firm relationships between CarpetCo and its customers and suppliers. As explained in the previous section, CarpetCo operated in the textiles industry in the household segment, manufacturing floor covering products. The product line was divided into two segments: residential and commercial, and the customer base included homes, offices, hotels, airports, and commercial environments. Some of the focal organisation's customers and suppliers were located abroad, and some operated in different sectors, forming a complex supply chain that went beyond country and industry boundaries. CarpetCo's supply chain is depicted in Figure 6.3. The firms that have been interviewed in this study have been highlighted in the figure. The inter-firm relationships across the supply chain will be explained in the following sub-sections.

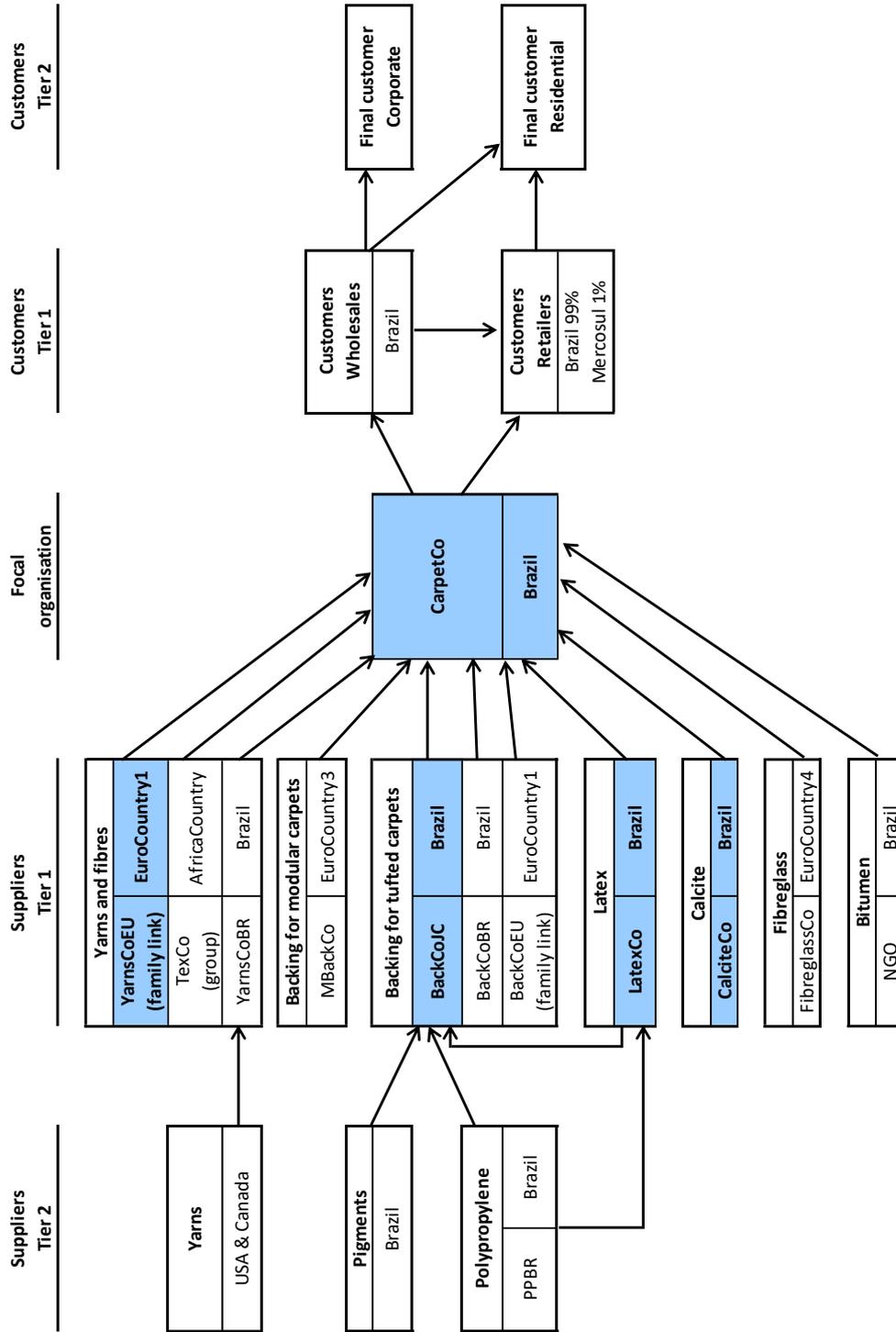


Figure 6.3: Supply Chain (Source: author)

6.2.1 Customers

CarpetCo's product mix was divided into two main 'segments' (product lines): residential and commercial. The commercial product line was further divided into two types: tufted carpets (sold in rolls) and modular carpets (sold in tiles). CarpetCo sold mainly to the internal (Brazilian) market, and exports represented only 1% of the business. Exports were exclusively within South America, with customers in Mercosur (the economic bloc formed by Argentina, Brazil, Paraguay and Uruguay) and Chile. Within Brazil, Sao Paulo was the largest market, representing 45% of sales. The distribution of the company's turnover by region according to information given by the financial director is shown in the table below.

Region	% Sales
Southeast (Sao Paulo)	45%
Southeast and South (Rio de Janeiro, Minas Gerais, Parana and Rio Grande do Sul)	40%
Midwest (Mato Grosso, Goias and Brasília DF)	10%
North and Northeast	4%
Exports (Mercosur and Chile)	1%

Table 6.1: Sales distribution by region (Source: author)

CarpetCo direct customers were all retailers, and the company did not sell its products directly to end-consumers. In other words, CarpetCo operated with a business-to-business arrangement rather than a business-to-consumer arrangement. The end-consumer base included residential customers, commercial customers (e.g. smaller offices), and corporate customers (e.g. larger businesses such as airports, hotels, banks, etc.). Some of CarpetCo's direct customers (retailers) were also wholesalers, as shown in Figure 6.3. In other words, besides serving residential, commercial and corporate customers, these retailers also sold CarpetCo's products to other smaller retailers.

The products sold to residential and commercial customers were generally standard products, whereby CarpetCo was responsible for developing the products,

defining characteristics such as design, colour, and type of yarn; and the retailers displayed the standardised products to the final customers. The corporate customers usually required some degree of product customisation, which demanded large projects involving CarpetCo, the retailer and the end-customer. For example, CarpetCo sometimes developed a specific carpet design or used a differentiated yarn colour for a specific customer (a national bank), and the product design phase involved staff from the bank, from the retailer who represented CarpetCo to the bank, and from product design team within CarpetCo.

6.2.2 Tier 1 Suppliers

CarpetCo bought its raw materials from both the internal (Brazilian) market and the external market, and the supplier base included third party firms, firms from within TexCorp, and firms with family links. In Figure 6.3, the suppliers of raw materials have been divided into six groups according to the type of material they supplied: yarns and fibres, backing for modular carpets, backing for tufted carpets, latex, calcite and materials for asphalt backing. These suppliers operated in different countries and industry sectors, forming a complex and broad supply chain: the suppliers of yarns and fibres operated in the textiles industry (YarnsCoEU_SM); the suppliers of backing material for tufted carpets also operated in the textiles industry (BackCoJC_SM); the suppliers of latex operated in the chemicals industry (LatexCo_BusDir); the suppliers of calcite operated in the mineral industry (as explained by the CEO at CalciteCo) and, finally, CarpetCo's single supplier of backing for modular carpets operated in a range of different industries, wherein the division that supplied backing materials to CarpetCo focused on the flooring sector (MBackCo website). Apart from these suppliers of raw materials, there were other three groups of suppliers: suppliers of finished goods for resale (e.g. laminated floor, synthetic grass); suppliers of indirect materials (e.g. packaging and consumable goods); and suppliers of machinery and parts for machinery.

Suppliers of Yarns and Fibre

Yarns and fibres were the materials that formed the visible part of the finished goods. CarpetCo had three active suppliers of these materials. The main supplier in terms of volume was YarnsCoEU, which was based in Europe (country omitted in

order to preserve anonymity). As indicated in Figure 6.1, this supplier had family links with CarpetCo. In other words, this supplier was part of the business conglomerate DutexCorp, which was owned by members of the family of CarpetCo's owners (as explained in section 6.1.1). The second supplier of these materials was TexCo, which was based in Africa (country omitted in order to preserve anonymity). It is important to note that this supplier was from within TexCorp, the same group of which CarpetCo was part (as explained in section 6.1.1). The third supplier of yarns and fibre was YarnsCoBR, which was the only supplier of these materials that was based in Brazil. In contrast to the other two suppliers of yarns and fibre, YarnsCoBR was a third-party company with no group or family links.

Suppliers of Backings

Backings were the materials that formed the back of the carpets. In terms of installation, CarpetCo divided their product lines into two types: tufted carpets (sold in rolls) and modular carpets (sold in tiles). For *modular carpets*, CarpetCo had only one supplier of backings which was based abroad (MBackCo). For *tufted carpets*, there were two different types of backing materials: primary and secondary backings. For primary backings for tufted carpets, there was only one supplier which was based abroad (BackCoEU). The SCM explained that CarpetCo had sought to change from BackCoEU to a national supplier (BackCoJC) in order to reduce the levels of stocks (since imported materials involved high levels of stock owing to the higher delivery cycle and the unpredictability of the importing process in Brazil). However, the SCM explained that this attempt failed because the quality of the primary backing material from BackCoJC was inadequate. For secondary backing for *tufted carpets*, there were three active suppliers: BackCoBR (based in Brazil), BackCoJC (based in Brazil), and BackCoEU (based in Europe). BackCoJC was CarpetCo's main supplier of secondary backings for tufted carpets in terms of volume. Two managers within this supplier were interviewed as part of this study, and the findings from these interviews will be discussed in subsequent chapters.

Suppliers of Latex and Calcite

Latex and Calcite were materials used in the formulation of the bonding agent of the carpets. For *latex*, CarpetCo had only one active supplier for this material at the time of the interviews (LatexCo), which was based in Brazil. As for Calcite, CarpetCo also had only one active supplier (CalciteCo), which was based in Brazil close to CarpetCo's plant. During the first phase of data collection CarpetCo had recently changed its supplier of calcite, which then remain the same up to the second phase of interviews. Managers within both CalciteCo and LatexCo were interviewed as part of this study, and the findings from these interviews will be discussed in subsequent chapters.

Suppliers of Fibreglass and Bitumen

Fibreglass and bitumen were materials used in the production of asphalt backing, a material that had recently been insourced by CarpetCo. In other words, CarpetCo had previously purchased a finished asphalt backing material from a supplier and had recently started to make this product in-house. Making this product in-house involved purchasing fibreglass and bitumen and transforming these materials into asphalt backing. This process of insourcing and the dynamics of the relationship between CarpetCo and these two new suppliers will be explored in chapter 8, which focuses on make-or-buy decisions.

6.2.3 Tier 2 Suppliers

This study mainly focuses on the relationships between CarpetCo and its tier 1 suppliers and customers. Although CarpetCo did not have a direct relationship with its tier 2 suppliers, they were aware of who some of their tier 2 suppliers were. Some of the main tier 2 suppliers to CarpetCo have been identified based on the information provided by interviewees within CarpetCo, as well as by the interviewees within some of CarpetCo's tier 1 suppliers that have been interviewed; and they are depicted in Figure 6.3. It is important to note that the list is not exhaustive as the mapping is limited to the tier 2 suppliers of which the interviewees were aware.

As seen in Figure 6.3, an important tier 2 supplier within CarpetCo's supply chain was PPBR (name anonymised). PPBR was a Brazilian giant petrochemical company

that supplied materials to two of CarpetCo's main tier 1 suppliers – BackCoJC and LatexCo. BackCoJC bought its main raw material, polypropylene, from PPBR. In fact, PPBR was the only company that produced polypropylene in Brazil, and PPBR sold around 70% of all polypropylene consumed within Brazil (Braskem, 2014). It seemed that PPBR's dominance of the market of polypropylene in Brazil impacted the power relations between buyers and suppliers. For example, the HR manager at BackCoJC suggested that PPBR's advantaged position allowed them to impose selling prices at their will.

“...we have only one big supplier. It's the company that supplies to everyone, which is PPBR. I personally have no contact with them. All I know is that they have the monopoly here in Brazil, which I think is wrong, because they charge whatever price that they want” (BackCoJC_HRM)

In relation to the quote above it is important to note that although the HR manager referred to PPBR having the monopoly of the propylene market in Brazil, this was not literal. Although PPBR was the only company that produced polypropylene in Brazil, in terms of distribution of polypropylene PPBR held around 70% of the market in Brazil, thus PPBR did not have the monopoly of the polypropylene market in Brazil given that there were other suppliers from abroad serving the national market.

The sales manager at BackCoJC also referred to PPBR and the unbalanced power relationship between PPBR and its suppliers. He further explained that this situation impacted the competitiveness of the Brazilian products within the Brazilian market. For instance, both BackCoJC and BackCoBR were national manufacturers of backings, and both of them purchased raw materials from PPBR. According to the sales manager, the price of the imported backings (finished backing purchased from abroad) was lower than the price of the backings manufactured by BackCoJC and BackCoBR.

“In our market we have one national supplier, which is PPBR. They dictate the rules, we cannot negotiate. Their selling price to us is the same as to BackCoBR. BackCoBR and we both have the same costs. There

is no other way, at the end of the process our price will be the same. But if, for example, our product has a final price of R\$15, in a scenario with a low exchange rate the product arrives from Belgium, for example, at R\$10. So it's very complicated" (BackCoJC_SM)

Another supplier of CarpetCo that bought materials from PPBR was LatexCo. The business director at LatexCo explained that, although there were no alternative suppliers of polypropylene within Brazil, they had the option to buy the material from abroad. However, LatexCo chose to buy the materials from PPBR because, according to the business director, the import timing and costs would not offset the higher price charged by PPBR.

"...for the polypropylene we have alternative suppliers, but we don't buy from them. We can bring from China, for example...There are many options, but imported. In Brazil there isn't, only PPBR. And for importing there are costs... Import duties, nationalisation, cost of customs, cost of storage, timing. We need to analyse all that. If you add all that up, at the most it will be the same, so it's unviable.... This reduces the competitiveness; it has a terrible impact, drastic" (LatexCo_BusDir).

In summary, PPBR was an important tier 2 supplier to CarpetCo, who supplied raw materials to two of CarpetCo's main tier 1 suppliers. PPBR had an advantaged position in its market and an unbalanced power relationship with its buyers, which directly affected the cost of the materials that CarpetCo purchased from its supplier. However, despite the importance of PPBR, CarpetCo had no directly relationship with this tier 2 supplier. Other tier 2 suppliers that could have had an important impact to CarpetCo had no direct relationship with the company either.

6.3 Summary

This chapter introduced the case study focal organisation (CarpetCo) and its supply chain. The focal organisation operated in the textiles industry in Brazil in the household segment, specialising in floor covering products (mainly carpets). CarpetCo was part of an international group (TexCorp) and the owner of the group had family links with another international group (DutexCorp). The plant in Brazil,

which had approximately 100 employees, manufactured products in-house and sold its products to the Brazilian market (99%) as well as to other countries in South America (1%).

CarpetCo's direct customers were all retailers, and the end-customer base included both residential and commercial customers. Products sold to residential customers were standard, and products sold to commercial customers (e.g. banks, hotels, offices) usually involved some degree of customisations in terms of design, colour and type of yarn.

As for CarpetCo's suppliers, the company bought its raw materials from both the internal (Brazilian) and the external market, and the supplier base included third party firms, firms from within the same group (TexCorp), and firms from the group with family links (DutexCorp). CarpetCo's suppliers operated in different countries and industry sectors, forming a complex and broad supply chain.

In order to enable this study to understand the internal factors that influenced the use of SCA practices in the case study organisation, this chapter also explored the intra-organisational dynamics. These included the organisational structure and the departmental roles, providing insights into the embedded power dynamics. This chapter also explored CarpetCo's employment and social practices, providing insights into organisational culture and, moreover, enabling this study to explore the impact of CarpetCo's organisational practices across its supply chain and on the development of Brazil.

CHAPTER 7: INTER-FIRM GOVERNANCE ACROSS THE SUPPLY CHAIN

As explained in previous chapters, the main purpose of this study is to explore the potential of SCA to promote both economic and social upgrading. In pursuit of this aim, this study explores the SCA practices used by a focal organisation in the textiles industry in Brazil and across its supply chain and examines how these practices impacted upon the wider economic and social context in which the organisations in the supply chain operated. As explained in chapter 2, this thesis uses the term supply chain accounting (SCA) to refer to the domain of management accounting and controls in inter-organisational settings. In other words, in this thesis the term SCA encompasses all forms of controls in inter-organisational settings, including control archetypes, management control mechanisms and cost and accounting controls (Caglio & Ditillo, 2008). Initially, a wide range of SCA practices (or control archetypes and mechanisms) were explored and, after preliminary analysis of data collected, greater focus was given to the SCA mechanisms that were more relevant to the case study and that offered richer empirics to achieve this study's purpose and objectives. Thus, in common with previous exploratory case study studies (Cooper & Slagmulder, 2004), the preliminary case analysis helped to identify the SCA practices to focus on in the course of the research. The SCA practices of focus of this study are: 1) inter-firm governance; 2) make-or-buy decisions; 3) customer accounting, and 4) open book accounting. This chapter explores the first of a series of four SCA practices explored in this study: inter-firm governance.

Inter-firm governance has been argued to be a source of corporate and inter-organisational competitive advantage (Estampe et al., 2013; Cullen & Meira, 2010; Dekker, 2004); therefore, inter-firm governance is arguably a key area of focus for promoting economic upgrading within emerging economies, particularly for the Brazilian textiles industry which was struggling to compete both in terms of price and quality. Inter-firm governance involves both the initiation and maintenance of inter-firm relationships. Thus, governance structure design and partner selection are key areas of debate in inter-firm governance literature (Xie, Liang, & Zhou, 2016; Dekker, 2004, 2008). While partner selection focuses on reducing control problems by finding a reliable and qualified supplier, the choice of governance structure (or

relationship arrangement) focuses on both reducing and managing control problems (Xie, Liang, & Zhou, 2016; Dekker, 2008; Zhou et al., 2003). Although partner selection and the choice of governance structure (or relationship arrangement) are considered the key mechanisms used to mitigate control problems in inter-firm relationships, inter-firm governance may involve a wide range of control mechanisms, including contractual and non-contractual arrangements and controls. For example, control mechanisms may involve contractual contingency planning, performance target setting, incentives, monitoring and rewarding outcomes and behaviour, information sharing, process reviews and joint problem solving (Xie, Liang, & Zhou, 2016; Dekker, Sakaguchi, & Kawai, 2013; Dekker, 2008). This chapter examines the rules and routines in terms of inter-firm governance within CarpetCo and down its supply chain, exploring the factors that shaped these rules and routines. This chapter also explores how the rules and routines in terms of inter-firm governance in the case study supply chain impacted upon the wider economic and social environment in Brazil.

7.1 Inter-firm governance in the case study supply chain

This section examines the rules and routines in terms of inter-firm governance within CarpetCo and down its supply chain and explores the factors that shaped these rules and routines. These factors include inter-organisational ones, such as the characteristics of the exchange transaction (Dekker, Sakaguchi, & Kawai, 2013; Ding, Dekker, & Groot, 2013; Kumra, Agndal, & Nilsson, 2012; Agndal & Nilsson, 2010; Dekker & Van den Abbeele, 2010; Dekker, 2004, 2008; Caglio & Ditillo, 2008; Speklé, 2001); the social embeddedness between buyers and suppliers (Ding, Dekker, & Groot, 2013; Dekker, 2008; Langfield-Smith & Smith, 2003; Buskens, Batenburg, & Weesie, 2003; van der Meer-Kooistra & Vosselman, 2000); and external environment ones, such as government initiatives (Seal, Berry, & Cullen, 2004) and unpredictability or lack of technological development (Dekker, Sakaguchi, & Kawai, 2013; Ding, Dekker, & Groot, 2013; Dekker, 2004, 2008).

7.1.1 Influence of transaction characteristics on inter-firm governance between CarpetCo and its suppliers

Many studies that examine the antecedents of inter-firm governance suggest that the processes of selecting an appropriate partner and designing an appropriate governance structure (or relationship arrangement) are shaped by the characteristics of the transactions and/or of the tasks involved in the inter-firm relationship. For example, many studies propose that the key determinants of inter-firm governance choices are related to the transaction risks, which include: asset specificity (Dekker, Sakaguchi, & Kawai, 2013; Ding, Dekker, & Groot, 2013; Agndal & Nilsson, 2010; Dekker & Van den Abbeele, 2010; Dekker, 2004, 2008; Caglio & Ditillo, 2008; Speklé, 2001), uncertainty (Dekker, Sakaguchi, & Kawai, 2013; Ding, Dekker, & Groot, 2013; Kumra, Agndal, & Nilsson, 2012; Agndal & Nilsson, 2010; Dekker & Van den Abbeele, 2010; Dekker, 2004, 2008; Speklé, 2001), and transaction size (or transaction volume) (Dekker, Sakaguchi, & Kawai, 2013; Dekker & Van den Abbeele, 2010; Dekker, 2008). Other factors that influence inter-firm governance include transaction frequency (Caglio & Ditillo, 2008; Dekker, 2004; Vosselman, 2002), cumulativity (Agndal & Nilsson, 2010), and supply chain maturity (Cullen & Meira, 2010).

For example, Agndal & Nilsson (2010) argue that when asset specificity and levels of uncertainty are low, firms adopt a transactional purchasing strategy, which are characterised by typically arm's length relationships. On the other hand, when asset specificity and levels of uncertainty are high, firms adopt a relational purchasing strategy (Agndal & Nilsson, 2010) and tend to form more collaborative and long-term business relationships (Kumra, Agndal, & Nilsson, 2012; Cullen & Meira, 2010).

Some of these findings were also reflected in this case study. For example, in common with previous literature, CarpetCo had different types of relationship arrangements with its tier 1 suppliers depending on transaction characteristics such as levels of uncertainty involved in the exchange transaction (Dekker, Sakaguchi, & Kawai, 2013; Ding, Dekker, & Groot, 2013; Agndal & Nilsson, 2010; Dekker & Van den Abbeele, 2010; Dekker, 2004, 2008). However, the evidence in this study is not entirely consistent with these previous studies. For example, in contrast with

previous studies (Dekker, Sakaguchi, & Kawai, 2013; Ding, Dekker, & Groot, 2013; Agndal & Nilsson, 2010; Dekker & Van den Abbeele, 2010; Dekker, 2004, 2008; Caglio & Ditillo, 2008; Speklé, 2001), in this case study asset specificity did not seem to influence the type of relationships between the buyer and its suppliers. The next sub-sections discuss these transaction characteristics that shaped inter-firm governance across the case study supply chain.

7.1.1.1 Asset specificity

Asset specificity relates to significant investments in assets dedicated to a specific transaction, and the extent to which these investments can be used in other transactions without loss of value or incurring high cost (Dekker, Sakaguchi, & Kawai, 2013; Agndal & Nilsson, 2010; Dekker, 2008). These investments may be in physical assets, such as tools, computer systems and machinery acquired specifically to satisfy the demands of a particular buyer, and/or in human assets, such as specific skills, knowledge and experience of individuals in the firm (Dekker, Sakaguchi, & Kawai, 2013; Agndal & Nilsson, 2010). In contrast with previous studies (Dekker, Sakaguchi, & Kawai, 2013; Ding, Dekker, & Groot, 2013; Agndal & Nilsson, 2010; Dekker & Van den Abbeele, 2010; Dekker, 2004, 2008; Caglio & Ditillo, 2008; Speklé, 2001), in this case study asset specificity did not seem to influence the type of relationships between the buyer and its suppliers. For example, yarns and fibres were critical materials for CarpetCo, but they were standard products for the suppliers and did not involve significant supplier-specific investments. In other words, for the suppliers of yarns and fibre CarpetCo was a customer that did not require customisations, thus the transaction did not involve asset specificity.

“[Our material] is standard for them. The material, say the master batch with which they make the yarns for us, they buy, they produce for us with the material that they have in-house” (CarpetCo_SCM)

The SCM further explained that the same was true for all other materials that CarpetCo purchased, not only yarns and fibre. In other words, there were no exchange transactions between CarpetCo and its tier 1 suppliers that involved asset specificity. A possible explanation for this may be CarpetCo’s product characteristics. Many studies which discussed the influence of asset specificity on inter-firm

governance were conducted in industries that involve high technology development, such the information technology industry (Kumra, Agndal, & Nilsson, 2012; Dekker & Van den Abbeele, 2010; Dekker, 2008), the telecommunications industry (Agndal & Nilsson, 2010), the automotive industry (Agndal & Nilsson, 2010), rail infrastructure (Dekker, 2004), and other complex manufacturing industries (Dekker, Sakaguchi, & Kawai, 2013). In this study, the products did not involve customisations or high levels of technological development. Therefore, the findings in this study may suggest that asset specificity has little or no influence on inter-firm governance within industries that do not involve high levels of technological development.

7.1.1.2 Uncertainty

Uncertainties in an exchange transaction may involve environmental and behavioural uncertainties (Dekker, Sakaguchi, & Kawai, 2013; Ding, Dekker, & Groot, 2013; Kumra, Agndal, & Nilsson, 2012; Agndal & Nilsson, 2010; Dekker, 2004, 2008). Environmental uncertainty refers to lack of predictability and control over the broader context in which the exchange transaction occurs (Dekker, Sakaguchi, & Kawai, 2013; Agndal & Nilsson, 2010; Dekker, 2008). Examples of environmental uncertainties include changes in the market (Dekker, Sakaguchi, & Kawai, 2013; Dekker, 2008), unpredictability and technological uncertainty (Dekker, Sakaguchi, & Kawai, 2013; Agndal & Nilsson, 2010; Dekker, 2008). Environmental uncertainties may arguably be particularly relevant within the context of developing countries where, for example, inflation may be high (Hopper et al., 2009; Tsamenyi, Bennett, & Black, 2004) and the business environment may involve political uncertainty (Hopper et al., 2009).

Behavioural uncertainty refers to difficulties in predicting and controlling how the partner will behave in the future (whether partners will behave opportunistically) (Ding, Dekker, & Groot, 2013; Agndal & Nilsson, 2010). Behavioural uncertainty may also be affected by environmental uncertainty. For example, Caglio (2017) argues that in times of recession behavioural uncertainty in inter-firm relationships increases. Behavioural uncertainty may be significant when the product is critical to the buyer (Kumra, Agndal, & Nilsson, 2012; Agndal & Nilsson, 2010), when there are few alternative suppliers (Dekker, 2008; Agndal and Nilsson, 2010; Kumra et al.,

2012; Dekker and Van den Abbeele, 2010; Dekker et al., 2013), and when the exchange transaction involves high levels of high switching costs and (Agndal & Nilsson, 2010). The findings in the textiles industry in Brazil also suggest that behavioural uncertainties are significantly affected by product criticality, the number of alternative suppliers, and the level of switching costs van (der Meer-Kooistra and Vosselman, 2000; Hakansson and Lind, 2004; Dekker, 2008; Agndal and Nilsson, 2010; Kumra et al., 2012), as will be explained in the next sub-sections.

7.1.1.2.1 Product criticality

Previous literature suggest that levels of uncertainty are high when the exchange transaction involves product criticality (Kumra, Agndal, & Nilsson, 2012; Agndal & Nilsson, 2010). In other words, levels of uncertainty may be high when the materials supplied are critical to the buyer, whereby failures in quality and delivery would have major consequences for the buyer (Kumra, Agndal, & Nilsson, 2012; Agndal & Nilsson, 2010). These findings seem to be reflected in this case study. For example, yarns and fibres were the most critical materials for CarpetCo, given that these materials formed the visible part of their finished goods, as explained by the SCM below.

“We have suppliers of raw material, which are the base of the products, the visible part of the products, which are the yarns. These are the main ones because for the yarn I can’t keep changing the suppliers. If I have an established product - for example, a colour [name of colour], which is a product that we have - I have to buy it from YarnsCoEU, which is the established yarn. It has the colour tone, everything just right”
(CarpetCo_SCM)

Given that yarns and fibre were critical materials for CarpetCo, quality was crucial for these materials. Therefore, CarpetCo employed mechanisms to mitigate uncertainties. These mechanisms were reflected particularly in the choice of suppliers for this material, which seemed to be mainly driven by quality. CarpetCo bought yarns from three suppliers, two from the external market (YarnsCoEU and TexCo) and one from the internal (Brazilian) market (YarnsCoBR). CarpetCo chose to import yarns and fibre because the quality of the national material was

inadequate, even though importing these materials involved higher costs and keeping higher levels of stock. The SCM explained that importing materials involved high levels of stock not only because the delivery period was higher, but also because the importing process in Brazil was unpredictable, which forced CarpetCo to keep stocks at higher levels than the normal cycle. The SCM further explained that CarpetCo had tried to buy yarns from a national manufacturer in the past, but the quality of the national material was too low thus the attempt was unsuccessful. In fact, the SCM further explained that CarpetCo's supplier of yarns which was based in Brazil was a retailer. In other words, the supplier did not manufacture the yarn in-house; instead they resold yarns purchased from abroad. Therefore, all yarns and fibre used by CarpetCo were in fact imported.

Other important raw materials used in the production of the final products were backings, which were the materials that formed the back of the carpets. These materials were less critical to CarpetCo in comparison to yarn and fibres, as they were not the visible part of the final product. As explained in chapter 6, CarpetCo divided their product lines into two: tufted carpets (sold in rolls) and modular carpets (sold in tiles). For modular carpets, CarpetCo had only one supplier of backings which was based abroad (MBackCo). For tufted carpets, there were two different types of backing materials: primary and secondary backings. The primary backings were a main contributing factor to the softness of the carpets. Therefore, although less critical than yarns and fibre, quality of primary backing materials was key. For primary backings for tufted carpets, CarpetCo had only one supplier which was based abroad (BackCoEU). The SCM explained that CarpetCo had sought to change from BackCoEU to a national supplier (BackCoJC) in the past, seeking to reduce the levels of stocks (given that imported materials involved high levels of stock owing to the higher deliver period and the unpredictability of the importing process in Brazil). However, the SCM explained that this attempt failed because the quality of the primary backing material from BackCoJC was inadequate. CarpetCo had purchased a sample of primary backing material from BackCoJC, but the material had a lower quality compared to the imported one, thus the company decided to continue to import from the external supplier. Interestingly, this very supplier (BackCoJC) was interviewed as part of this study, and the sales manager revealed that his company faced difficulties to invest in modern equipment to be

used in their production process. The manager explained that their difficulties were mainly due to the lack of manufacturers of that type of machinery in Brazil. Due to the lack of national manufacturers, his company sought to import the machinery, but they faced difficulties with the importing process, which was complex and costly. These findings suggest that one of the reasons for the lack of competitiveness of the textiles industry in Brazil in terms of quality seemed to be the difficult access to high-end technological machinery in Brazil. There were no Brazilian manufacturers for some types of machinery, and the costs for importing were too high. Additionally, as explained by the SM at BackCoJC, the clearing process of imports was also too bureaucratic and slow, making it even more difficult for Brazilian firms to obtain modern machinery. In addition, the findings here suggest that the uncertainties arising from product criticality were exacerbated by environmental uncertainties, namely the lack of development of the Brazilian industry and the unpredictability of the importing process in Brazil.

For secondary backings for tufted carpets, CarpetCo had three active suppliers, one based abroad (BackCoEU) and two based in Brazil (BackCoJC and BackCoBR). The secondary backing was a determining factor on the dimensional stability of the carpets. Although secondary backings were important materials, they were less critical than primary backings and yarns and fibre. The SCM explained that the quality of the secondary backings manufactured in Brazil was slightly lower than the imported material, and yet the cost of the Brazilian material was slightly higher than the imported material. However, in this case the quality of the Brazilian material, although lower than the imported one, was satisfactory for the minimum quality standard required. Early literature on supplier selection (Verma & Pullman, 1998) suggest that once the minimum level of quality is secured cost reduction becomes the main focus in the supplier selection process. In contrast, in the case of secondary backings at CarpetCo, although the imported backing had slightly lower costs CarpetCo chose to procure these materials from both suppliers. Buying from the national supplier enabled CarpetCo to keep lower levels of stock (given that, as explained above, imported materials involved a higher volume of stocks due to the slow importing process in Brazil). Moreover, as explained above, for these materials CarpetCo kept three suppliers active. In other words, CarpetCo had three options of suppliers for these materials and they could buy from whichever

supplier at any time. Therefore, CarpetCo took a more transactional purchasing strategy for these materials, which is associated with a market perspective whereby the buyer looks for alternative suppliers (Agndal & Nilsson, 2010; Cullen & Meira, 2010). Therefore, in common with previous studies (Kumra, Agndal, & Nilsson, 2012; Agndal & Nilsson, 2010), these findings suggest that product criticality not only impacted on the partner selection process, but also on the relationships arrangements between the buyer and its suppliers. While the relationship between CarpetCo and its suppliers of secondary backings could be characterised as more transactional relationships; the relationship between CarpetCo and its suppliers of yarns and fibre (critical materials), could be defined by a relational purchasing strategy, which involves repeat purchases with favoured suppliers, forming long-term and close relationships (Kumra, Agndal, & Nilsson, 2012; Agndal & Nilsson, 2010; Cullen & Meira, 2010).

7.1.1.2.2 Levels of switching costs

Uncertainty may arise when transactions involve high switching costs (Kumra, Agndal, & Nilsson, 2012; Agndal & Nilsson, 2010; Dekker, 2008; Håkansson & Lind, 2004; van der Meer-Kooistra & Vosselman, 2000). As explained above, yarns and fibres were the most critical materials for CarpetCo, given that they formed the visible part of the finished goods. These materials also involved high switching costs. This is because CarpetCo designed their products in such a way that they had to use yarns from a specific supplier due to certain established specifications such as colour tone. For example, each model of carpet had an established colour tone specification which had been defined during product development with the supplier. Therefore, these materials involved high switching costs, because if CarpetCo were to change the supplier for these materials they would have to carry out a new product development with the new supplier, including colour tone tests and product specifications, as explained by the SCM below.

“If I have an established product - for example, a colour [name of colour], which is a product that we have - I have to buy it from YarnsCoEU, which is the established yarn. It has the colour tone, everything just right. If I want to buy from another supplier I will have to do all the colour tone

tests again, all the specifications, a whole new development until I reach an identical one so that I can commercialize it” (CarpetCo_SCM)

7.1.1.2.3 Number of alternative suppliers

As explained above, uncertainty may be significant when there are few alternative suppliers (Kumra, Agndal, & Nilsson, 2012; Agndal & Nilsson, 2010; Dekker, 2008; Håkansson & Lind, 2004), or lack of competition (Dekker, Sakaguchi, & Kawai, 2013; Dekker & Van den Abbeele, 2010). These findings were also reflected in this case study. Yarns and fibre also involved uncertainty in relation to the number of alternative suppliers, given that there were few suppliers of these materials in Brazil. The quality manager (QM) at CarpetCo explained that there were very few suppliers of yarns and fibre in Brazil, and that the quality of the material of the Brazilian manufacturers was inadequate.

“We have already tried to [buy from local suppliers]... but they cannot deliver technically, so we are forced to buy from abroad. They cannot deliver the colour; they have quality problems...” (CarpetCo_QM_Fup)

As explained above, one of CarpetCo’s suppliers of yarns and fibres was based in Brazil (YarnsCoBR). However, this supplier only resold yarns purchased from abroad (in this case, U.S.A and Canada), rather than manufacturing the yarn in-house. Therefore, all yarns and fibre used by CarpetCo were in fact imported material.

“I buy it from them here in Brazil but the yarn comes from the United States and Canada” (CarpetCo_SCM)

“[our supplier] is only a retailer... the material is actually American or Canadian... [our yarns] are all imported” (CarpetCo_Comex)

Although YarnsCoBR was based in Brazil, the price of the yarns purchased from this supplier was the highest; higher than the price of yarns purchased from the other two direct suppliers of yarns based abroad (YarnsCoEU and TexCo) even after adding all the import duties (CarpetCo_SCM).

“...the yarn from YarnsCoBR is the most expensive one that we use in our process today... It’s more expensive even for this convenience... the cost of the yarn that I buy from abroad includes import duties, freight and everything... YarnsCoBR has this cost of importing too... and their margin, so there’s no magic [laughter]” (CarpetCo_SCM)

However, as further explained by the SCM, it was more advantageous to buy the material from YarnsCoBR rather than buying directly from the manufacturers in North America because, if CarpetCo were to import the material directly from abroad, the company would have to keep a higher volume of stocks due to the slow importing process in Brazil which, in turn, would involve costs for keeping stocks.

“YarnsCoBR has other customers [in Brazil] and this is an advantage, because they keep a stock too... today my stock [of materials] from YarnsCoBR is 17 to 19 tonnes, which is a small quantity, it’s a stock for a month. If I had to keep a stock here of my own, I would have transportation time, time for the order... I would need to have a stock for at least around 4 months, so there would be a cost... and, also, there are yarns that I have an average consumption of 30 kilos per month. There are 37 colour tones that I use in my production, from one that I use 3 tonnes per month to other that I use 30 kilos. This one of 30 kilos, I would need only 300 kilos to run all year long, but if we receive an order of a large quantity, I would have to... say we received an order for a carpet that is not sold a lot, but in that month a customer says that he wants 10 thousand meters. I’ll have to produce and I’ll need 500 kilos. Until this yarn is imported and arrives here for me, it would take months... and YarnsCoBR has it here at prompt delivery, so I order today and the day after tomorrow it’s here. So it’s much more convenient...” (CarpetCo_SCM)

In the case of Yarns and fibre, CarpetCo chose to keep more than one supplier active even though it would have been more advantageous to buy only from YarnsCoBR, seemingly to avoid opportunism from YarnsCoBR. The accounting manager echoed this sentiment. He said that if there were more suitable suppliers within Brazil

CarpetCo would rather buy yarns from Brazilian firms in order to minimise the cycle of stocks of materials.

“...in Brazil it’s difficult, there aren’t many options of yarns. But, of course, where there are suppliers in Brazil, the logistics are shorter and it reduces the cycle, of course we opt for Brazil” (CarpetCo_AccM_Fup)

For backing for modular carpets, as explained above CarpetCo had only one supplier which was based abroad (MBackCo). Therefore, this material involved behavioural uncertainty in relation to the number of alternative suppliers or lack of competition (Dekker, Sakaguchi, & Kawai, 2013; Kumra, Agndal, & Nilsson, 2012; Agndal & Nilsson, 2010; Dekker & Van den Abbeele, 2010; Dekker, 2008; Håkansson & Lind, 2004). For instance, if MBackCo suddenly stopped supplying this material, CarpetCo would not have an immediate alternative supplier of backing for modular carpets. For this reason, combined with the unpredictability of the importing process in Brazil, CarpetCo also kept high levels of stock for these materials. Therefore, the findings here suggest that, in common with previous literature (Dekker, Sakaguchi, & Kawai, 2013; Kumra, Agndal, & Nilsson, 2012; Agndal & Nilsson, 2010; Dekker & Van den Abbeele, 2010; Dekker, 2008; Håkansson & Lind, 2004), the low number of alternative suppliers impacted upon inter-firm governance within CarpetCo, reflected both in the supplier selection and on the relationship arrangements

Latex and Calcite were not critical materials for CarpetCo. These materials were used in the formulation of the bonding agent of the carpets, and they were also standard products for the suppliers; therefore, these materials did not involve asset specificity either (Dekker, Sakaguchi, & Kawai, 2013; Agndal & Nilsson, 2010). The choice of supplier for these materials was mainly determined by cost. For latex, although CarpetCo had only one active supplier for this material at the time of the interviews (LatexCo), there were many alternatives of suppliers for this material both in Brazil and abroad. In fact, CarpetCo had previously purchased latex from a supplier based abroad which was part of the group of companies with family links (DutexCorp), but CarpetCo had changed to the national supplier (LatexCo) in order to reduce costs as well as the levels of stocks required for imported materials.

“...the latex I can either import or buy from the internal market, and the only determinant is the cost. The difference is that the imported one I need to buy today to receive in two months, whereas the national I buy today and receive the day after tomorrow. So I can't decide to buy from the external market today to receive soon, so I need to make a planning” (CarpetCo_SCM)

In fact, CarpetCo had a rather transactional (or arms-length) relationship with its supplier of latex, whereby the focus was on reducing costs and the buyer and supplier took adversarial roles (Agndal & Nilsson, 2010; Cullen & Meira, 2010). For example, as part of an international group, CarpetCo had access to comprehensive information about the price of certain international commodities which were the base materials of latex, giving CarpetCo an advantage when negotiating prices with its supplier of latex.

“...given that [the price of] polymers are global, our management has a control over them, and they tell us when they are expensive. They know everything that is happening, and they manufacture, so they buy polymers too. So they inform us if it's expensive. [They say]: 'you can push it because from that you can get 3%...' This kind of information we discuss with the entire group and we pass it on to our suppliers. So many times, because of that, the supplier justifies: 'but [there is] my transport, my freight, my labour hours, the inflation, the Brazil cost'... They open this information to us, but only up to that” (CarpetCo_FinDir)

For calcite, the choice of supplier was determined by price as well. For instance, at the first phase of data collection CarpetCo had recently changed its supplier of calcite, and the change happened after CarpetCo had been sought by CalciteCo offering a better price compared to their previous supplier (as explained by the SCM). However, similarly to Latex, CarpetCo could buy calcite from either supplier at any moment.

“[CalciteCo] is a new supplier, we received their first load last week and

we already used it yesterday, but we had already made a test in production, we have visited their factory, the mining. And the quality of their product is much higher than the one from (name of old supplier)... But we have the possibility of buying from both of them” (CarpetCo_SCM)

7.1.2 The influence of social embeddedness on supplier selection and governance structure

Previous studies found that another important factor that shapes inter-firm governance is the previous partner experience or social embeddedness involved in the inter-firm relationship (Xie, Liang, & Zhou, 2016; Ding, Dekker, & Groot, 2013; Dekker & Van den Abbeele, 2010; Dekker, 2008; Buskens, Batenburg, & Weesie, 2003). Partner experience refers to the experience between the buyer and the supplier developed during previous transactions (Dekker & Van den Abbeele, 2010). The term social embeddedness can be used more broadly to refer to information held by the buyer acquired from the buyer’s own previous experience with the supplier and/or from the supplier’s previous experience with other partners (Buskens, Batenburg, & Weesie, 2003). In common with these studies, social embeddedness (or partner experience) seemed to be an important factor that shaped inter-firm governance between CarpetCo and its suppliers. For example, CarpetCo had closer (and more personal) relationships with their suppliers of yarns and fibres (YarnsCoEU and TexCo), and these were long-term suppliers with whom CarpetCo had been trading for many years, as explained by the external trade manager. Buskens, Batenburg, & Weesie (2003) argue that social embeddedness is particularly relevant when the product supplied is critical to the buyer. Agndal & Nilsson (2010) argue that cumulativity (or repeat purchases) tends to be higher when the products are critical to the buyer, whereby the buyer tends to use the same favoured suppliers. Yarns and fibre were the most critical materials for CarpetCo, and CarpetCo seemed to favour their closer suppliers for these materials (YarnsCoEU and TexCo). The external trade manager also suggested that CarpetCo’s close relationship with these suppliers was attributed to the fact that they were from within TexCorp or from within the group with family links (DuTexCorp).

“[Our relationship] with our closest suppliers is as if they were our customers. [We have] the same kind of close relationship that we have

with them. The most frequent ones, which are YarnsCoEU; TexCo... [Our relationship] is closer with those companies that are part of the group – either of our group [TexCorp] or of DutexCorp International. With the ones who are from the family it is better, with these ones the relationship is much closer... It is because they belong to the group, I believe... and TexCo for being with us for so many years, talking to the same people” (CarpetCo_Comex)

These findings may suggest that social embeddedness may also be linked to firms’ ownership structure. As explained in chapter 6, CarpetCo was part of an international family business group (TexCorp group) which had family links with another international business conglomerate (DutexCorp group). CarpetCo had some suppliers that were part of TexCorp, some that were part of DutexCorp, and some completely independent third-party suppliers, and CarpetCo had closer and more personal relationships with suppliers from within the same corporate group (TexCorp) or from the group with family links (DutexCorp). In other words, the ownership structure seems to influence social embeddedness, whereby uncertainties are reduced by the fact that the buyer and supplier have ties in common.

While interviewees within CarpetCo acknowledged that the ownership structure influenced their relationship arrangement with their suppliers, whereby suppliers from within the same group and/or with family links had closer and more personal relationships, interviewees said that the partner selection process was not influenced by the suppliers’ ownership. For example, the finance director said that CarpetCo was independent from the other companies from within TexCorp group, and that CarpetCo was free to procure materials from other suppliers. She said that CarpetCo chose to buy materials from the companies from within the group or with family links because they were the best option.

“We are independent, we can buy from whoever we want; we don’t need to buy from within the group. But of course we buy [from within the group] because it’s worth it” (CarpetCo_FinDir)

Despite the finance director's belief that ownership did not influence the partner selection process, it seemed that the social embeddedness between CarpetCo and the suppliers from within the group did influence CarpetCo's supplier selection. Social embeddedness reduces uncertainty in relation to how the supplier will behave in the future and increases the probability of taking on new transactions with known partners (Xie, Liang, & Zhou, 2016; Dekker, 2008). The close relationships between CarpetCo and these suppliers reduced levels of uncertainty in relation quality, as referred to in the quote above. The finance director seemed to have taken this for granted. In other words, the reduced uncertainty in relation to these partners arising from their previous experience seemed to be institutionalised within CarpetCo.

Previous studies suggest that firms tend to give more importance to common culture during the partner selection process when they have previous experience with the partner (Ding, Dekker, & Groot, 2013). This argument may help to explain CarpetCo's close relationships with the main suppliers for yarns and fibre. For example, in the perception of the external trade manager, another reason for the closer relationship of CarpetCo with these two suppliers was the fact that the middle managers at CarpetCo knew these suppliers personally. She said that, although CarpetCo had a good relationship with its other suppliers as well, the fact that they did not know them personally made a big difference in building personal relationships. Moreover, she said that their relationship with the suppliers from Asia was more formal, suggesting that culture played a role in the relationship arrangement with their partners.

“...with the other [suppliers] we have a certain easiness negotiating as well, they are visited by our president from abroad... He is always there, negotiating... but we don't actually know them, so this makes a big difference... and [with] the suppliers in Asia I feel a big difference. In terms of warmth even. They are very formal. The one from South Korea is actually quite easy to deal with; because everything is done by one person; complaints, orders, document, it is all with the same person. So with him it is easy. But, for example, with the suppliers from China the relationship was formal. What you need, you ask, they send. But that's all”
(CarpetCo_Comex)

7.1.3 The impact of government initiatives on partner selection within CarpetCo

The findings in this case study also suggest that there are other external institutional factors that influence the selection of suppliers such as government incentives for local content. For example, for secondary backings, another important raw material within CarpetCo's production process, CarpetCo had the option to procure either from local suppliers or from a supplier based abroad. Both the local and the external suppliers satisfied the minimum product quality required, but the price of the national material was higher. Verma and Pullman (1998) argue that once the minimum level of quality is secured, cost reduction becomes the main focus in the supplier selection process. In this case, it seemed that cost was not the main focus after the minimum level of quality was achieved. Here, if focus had been placed on cost, CarpetCo would have chosen to buy this material from the external supplier which had the lower price because, given that both suppliers satisfied the minimum product quality required, the price would have been the determinant element in the supplier selection. However, CarpetCo chose to buy a mix of national and imported secondary backings. CarpetCo's decision to buy a mix of national and imported secondary backings was driven by a government incentive for local content, which determined that exports to the countries within the Mercosur bloc would be free of taxes as long as 60% of the sales price was related to Brazilian products and/or to cost incurred within Brazil. This incentive influenced CarpetCo's choice of suppliers of secondary backings. CarpetCo purchased this material both from abroad and from the national supplier, and kept a mixed stock of imported and national materials. When CarpetCo had a production order for export, the company used the national backing; otherwise the company used the imported backing, as explained by the SCM.

"There is a strategy for exports. To be able to export... you need to have within the product a certain quantity of national product... I can use either one at any time. If there is an export, I use the national backing... there won't be any difference, because it's the same backing, it has the same characteristics, and it's a backing that doesn't show; it's tufted, so there's no difference" (CarpetCo_SCM)

Admittedly, it could be argued that the influence of the government incentive was, in essence, a search for cost reduction, given that as a result of the use of national materials, exports would be free of taxes, and therefore it could be argued that these findings support the assumptions by Verma and Pullman (1998). However, exports were not profitable for CarpetCo, as will be explained in more details in chapter 9 (Customer Accounting practices), therefore the findings in this case study do not support this argument. One possible reason for CarpetCo's decision to buy national materials despite their costs in order to be eligible to the government incentive might be that the company was taking a long-term perspective in relation to exports. As will be explained later in chapter 9, CarpetCo chose to export even though this was not profitable because the company wanted to maintain its presence in the external (South American) market. Thus, it seemed that CarpetCo believed that this market could be profitable in the future, characterising a form of use of the customer valuation analysis technique. Therefore, it could be argued that such long-term perspective and the use of such customer accounting technique was impacting upon supplier selection in this case study. Another possibility is that CarpetCo wanted to gain legitimisation within this market. If the final products achieved 60% of nationalisation, the company would be able to use the denomination "made in Mercosur". However, the findings in this study also suggest that when product criticality was high, government initiatives did not have an impact on inter-firm governance. This could be observed in the case with yarns and fibre, which were the most critical materials for CarpetCo. CarpetCo chose to import yarns and fibre because the quality of the national material was inadequate, even though importing these materials involved higher costs and keeping higher levels of stock, and despite the government incentive for local content.

7.1.4 Power dynamics across the supply chain and its influence on inter-firm governance structure

Interestingly, the SCM further explained that the price of the secondary backings manufactured in Brazil was higher than the price of the imported backings due to the higher cost of raw materials used by CarpetCo's national suppliers. In other words, the Brazilian backings were more expensive because the cost of the Brazilian raw material (in this case polypropylene) was higher. What is more interesting is that the supplier of the raw materials in this case was PPBR, who dominated the

market of polypropylene in Brazil (as explained in chapter 6).

“This backing that I import, they have it here ready to sell, but at a higher price because PPBR, which supplies the polypropylene here in Brazil, they regulate the price, it’s a fixed price, and if I import, it ends up cheaper... so it’s a matter of... PPBR supplies and... they can’t buy from another one, only from PPBR” (CarpetCo_SCM)

The findings here may support the argument that the unbalanced power relationship between PPBR and its suppliers impacted upon the competitiveness of the Brazilian products within the Brazilian market. For example, CarpetCo would have chosen to purchase all secondary backing from the national suppliers if their costs were the same as the imported secondary backings. Instead, CarpetCo chose to keep a mix of both national and imported backing in order to take advantage of the lower costs of the imported material.

7.1.5 The influence of suppliers’ approach to managing social issues on inter-firm governance down the supply chain

It has been argued that social responsibility can be an influencing factor in inter-firm relationships decisions both for moral reasons and for financial performance reasons (Klassen & Vereecke, 2012; Dibben et al., 2002). For example, a firm’s reputation (as being socially responsible) could influence its sales, and hence its profits (Dibben et al., 2002). The evidence in this study is not entirely consistent with these assumptions. This was evident in the supplier selection process within CarpetCo. Suppliers’ approach to managing social issues (including the suppliers’ own employment practices) was not taken into account during the supplier selection process. For example, for secondary backings CarpetCo had the option to buy from two local suppliers (BackCoBR and BackCoJC). Both suppliers achieved the minimum level of quality required, and in this case CarpetCo favoured the supplier with the lower cost. The SCM explained that CarpetCo had previously purchased secondary backings only from BackCoBR, but BackCoJC offered the same product for a lower price, thus CarpetCo was gradually reducing the amount of purchases from BackCoBR and switching to BackCoJC. Interestingly, the HR manager within BackCoJC was interviewed as part of this study, and he admitted that his company

paid lower salaries in comparison to BackCoBR, who was their main competitor. The HR manager also revealed that his company had a high employee turnover. These findings imply that the lack of awareness suppliers' accounting information may have led to changing to a supplier with worse employment practices, which may not be sustainable in the long term.

Perhaps not surprisingly, the SCM admitted that it would have been "interesting" to ask the suppliers to comply with certain HR requirements. However, he said that even if he did become aware of suppliers' bad employment practices, this would not influence his decision regarding the selection of a supplier of raw materials.

"The selection of a supplier is mainly related to the product, we never have [asked suppliers to comply with HR requirements]... But thinking about it... I believe it is interesting too, now that you have mentioned... we've never asked... it would [be interesting to ask]... Not that it will influence in the selection of the supplier or not, because if I need a product and they have it and it's very good... Of course it would make you balance this, but maybe even so..." (CarpetCo_SCM)

The external trade manager expressed a similar view, stating that she believed that it was important to know about a supplier's employment practices, but yet she (or her division) did not monitor these practices.

"I think it is important [to know about the suppliers' employment practices], because everything is involved in one chain... but this is not something that we control" (CarpetCo_Comex)

In contradiction with the comments of the SCM and the external trade manager, the QM said that CarpetCo required the suppliers under selection to present official documents issued by different governmental agencies (including social security) showing that they did not have any irregularities. Additionally, the QM provided a copy of the form used by CarpetCo to collect information from suppliers under the selection process (see appendix, company document 3). In this form, there is a note requesting the suppliers to present a letter signed by their senior executive declaring that they were following all the employment, anti-discriminatory and

safety norms. One possible explanation for the contradiction between the information provided by the QM, the SCM and the external trade manager may be a lack of communication between divisions. In other words, while the QM requested these documents from the suppliers, the SCM and the external trade manager were not aware of such control. Another possible explanation may be that the SCM and the external trade manager referred to suppliers' employment practices beyond the minimum requirements by employment legislation, such as non-compulsory employment benefits and wages above the minimum wage. For example, the SCM said that if he became aware of suppliers' "bad employment practices" this would not influence his decision. However, by "bad employment practices" he did not necessarily mean irregularities. This reasoning can be supported by the case of the change of the supplier of secondary backings. As explained above, CarpetCo had the option to buy secondary backing from BackCoBR and BackCoJC, and both suppliers achieved the minimum level of quality required thus CarpetCo favoured the supplier with the lower cost. The interviews within BackCoJC revealed that they paid lower salaries compared to BackCoBR, but this did not mean that BackCoJC paid salaries below the minimum wage established by the regulations.

7.2 Summary

In pursuit of this study's aim of exploring the potential of SCA as a means to promote both economic and social upgrading, this chapter examined the first of a series of four SCA practices (or control archetypes) used by a focal organisation in the textiles industry in Brazil and across its supply chain. This chapter examined the rules and routines in terms of inter-firm governance in the case study supply chain, which involved the processes of selecting an exchange partner within the focal organisation (CarpetCo) and of designing governance structures (or relationship arrangements) between CarpetCo and its suppliers. This chapter explored the factors that shaped the rules and routines in terms of inter-firm governance and investigated how these rules and routines impacted upon the wider economic and social environment in Brazil.

In common with previous studies, the findings in this study indicate that inter-firm governance was impacted by uncertainties arising from the characteristics of the

transaction involved in the inter-firm relationships, such as the criticality of the product for the buyer (Kumra, Agndal, & Nilsson, 2012; Agndal & Nilsson, 2010), the levels of switching costs (Kumra, Agndal, & Nilsson, 2012; Agndal & Nilsson, 2010; Dekker, 2008; Håkansson & Lind, 2004; van der Meer-Kooistra & Vosselman, 2000) and the number of alternative suppliers (Kumra, Agndal, & Nilsson, 2012; Agndal & Nilsson, 2010; Dekker, 2008; Håkansson & Lind, 2004), or lack of suppliers' competition (Dekker, Sakaguchi, & Kawai, 2013; Dekker & Van den Abbeele, 2010). For example, yarns and fibre were the most critical materials for CarpetCo given that they were the visible part of the final product, and quality was crucial for these materials. Consequently, the exchange transaction for these materials involved high levels of uncertainty. These materials also involved high switching costs because the carpets were designed in a way that they had to use specific yarns from specific suppliers. Yarns and fibre also involved uncertainty in relation to the low number of suppliers of yarns and fibre in Brazil. Also in common with previous literature (Dekker, Sakaguchi, & Kawai, 2013; Agndal & Nilsson, 2010; Dekker, 2008), the exchange transactions between CarpetCo and its suppliers involved environmental uncertainty, such as unpredictability and/or lack of technological development. For example, one of CarpetCo's local suppliers of secondary backing material who was interviewed as part of this study (BackCoJC) revealed that his company was facing difficulties in getting access to modern machinery, which generated uncertainty to the buyer as to whether the supplier would be able to deliver on quality. These findings suggest that environmental uncertainty in the textiles industry in Brazil may arise from the lack of technological development and access to modern machinery. These findings may help to explain the lack of competitiveness of the Brazilian industry and, in turn, influence policy. For example, government initiatives could be built around simplifying the importing process and/or facilitating access to credit for textiles firms to achieve modern machinery.

On the other hand, in contrast with other studies (Dekker, Sakaguchi, & Kawai, 2013; Ding, Dekker, & Groot, 2013; Agndal & Nilsson, 2010; Dekker & Van den Abbeele, 2010; Dekker, 2004, 2008), asset specificity did not seem to impact the relationship between CarpetCo and its suppliers. One possible explanation for this may be CarpetCo's industry and/or product characteristics. Many studies which discussed the influence of asset specificity on inter-firm governance were conducted in

industries that involve high technology development, such the information technology industry (Kumra, Agndal, & Nilsson, 2012; Dekker & Van den Abbeele, 2010; Dekker, 2008), the telecommunications industry (Agndal & Nilsson, 2010), the automotive industry (Agndal & Nilsson, 2010), rail infrastructure (Dekker, 2004), and other complex manufacturing industries (Dekker, Sakaguchi, & Kawai, 2013). In this study, conducted in the industrial textiles industry, the materials did not involve significant customisations or high levels of technological development. Therefore, the findings in this study may suggest that asset specificity has little or no influence on inter-firm governance within industries that do not involve high levels of technological development.

In common with previous studies (Xie, Liang, & Zhou, 2016; Ding, Dekker, & Groot, 2013; Dekker & Van den Abbeele, 2010; Dekker, 2008; Buskens, Batenburg, & Weesie, 2003), another important factor that impacted upon inter-firm governance in this study was the social embeddedness between buyers and suppliers (or partner experience). The findings here support previous assumptions (Xie, Liang, & Zhou, 2016; Dekker, 2008) that social embeddedness may reduce uncertainties related to the exchange transactions and, in turn, may influence the relationship arrangements between buyers and suppliers and the process of partner selection. For example, CarpetCo had closer (and more personal) relationships with their suppliers of yarns and fibre, and these were long-term supplies with whom CarpetCo had been trading for many years. In other words, the social embeddedness between CarpetCo and the suppliers of yarns and fibre seemed to influence CarpetCo's choice of supplier. The findings in this study further suggest that social embeddedness may be linked to firms' ownership structure. For example, CarpetCo was part of an international business group, and CarpetCo had closer and more personal relationships with the suppliers from within the same group. In other words, the ownership of the suppliers seemed to enhance the social embeddedness between CarpetCo and these suppliers.

The findings in this study also suggest that another external factor that influence inter-firm governance includes government initiatives, such as incentives for local content. For example, for secondary backings CarpetCo had the option to either buy from local suppliers or import the materials. Both the external and the local

suppliers attended the minimum quality requirements, but the cost of the imported material was slightly lower. Nonetheless, rather than buying the materials with the lower cost, CarpetCo decided to buy a mix of national and imported secondary backings. This was because there was a government incentive for local content which determined that exports to the countries within the Mercosur bloc would be free of taxes as long as 60% of the sales price was related to Brazilian products and/or to cost incurred within Brazil. By buying a mix of national and imported products, CarpetCo took advantage of both the lower cost and of the government incentive. Therefore, the findings here suggest that government initiatives such as incentive for local content may impact organisations' SCA practices such as supplier selection. On the other hand, the findings in this study also suggest that when product criticality was high, government initiatives did not have an impact on inter-firm governance. This could be observed in the case with yarns and fibre, which were the most critical materials for CarpetCo. CarpetCo chose to import yarns and fibre because the quality of the national material was inadequate, even though importing these materials involved higher costs and keeping higher levels of stock, and despite the government incentive for local content.

In terms of the impact of inter-firm governance on the economic and social environment, the findings discussed in this chapter suggests that an organisation's SCA practices impacts upon the wider external environment in which the organisation operates, both in the economic and in the social context. For example, CarpetCo chose to import primary backing materials rather than to purchase from a local supplier because the quality of the national material was inadequate. As discussed above, the local supplier in question (BackCoJC) was interviewed and he revealed that his company was facing difficulties to purchase modern machinery to be used in their production process, due to both the lack of manufacturers of that kind of machinery in Brazil, and the difficulty of BackCoJC to get access to financing to import the machinery. Thus, it seemed that a possible reason for the low quality of the national materials (which impacted upon the partner selection process within CarpetCo) was the (institutionalised) lack of technological development in the textiles industry in Brazil. By choosing to import the material (rather than, for example, engage in collaborative actions with the local supplier to help them to get access to the technology and to improve quality), CarpetCo played a role in the

reinforcement of the lack of technological development in the textiles industry in Brazil and, arguably consequently, to the reinforcement of the low quality of the national material. From an institutional perspective, the previous institutions (lack of technological development) impacted upon the SCA practices (partner selection) which resulted on the reinforcement of the previous institutions (lack of technological development) (Burns & Scapens, 2000).

In terms of the impact of the SCA practices discussed above on the social context, by choosing to import the material, CarpetCo arguably impacted upon the social context in the textiles industry in Brazil in terms of employment security. For example, the BackCoJC's sales manager revealed that BackCoJC's owner had recently considered shutting down their operations in Brazil. Therefore, CarpetCo's SCA practices (in this case, partner selection) had social implications for the Brazilian industry in terms of employment security. Another example of how CarpetCo's SCA practices in terms of inter-firm governance impacted upon the social context of the external environment in which the organisation operated was CarpetCo's choice of supplier of secondary backings. CarpetCo had recently changed the supplier for one of its raw materials because the new supplier offered a lower price (both suppliers achieved the minimum quality requirement). The HR manager within the new supplier for this material (BackCoJC), who was also interviewed as part of this study, revealed that his company had a high employee turnover and that he was aware that his company paid lower salaries than CarpetCo's previous supplier. These findings imply that the lack of awareness of suppliers' accounting information may have led to changing to a supplier with worse employment practices. Therefore, the findings discussed in this chapter suggests that an organisation's SCA practices may impact upon the wider external environment in which the organisation operates, both in the economic and in the social context.

CHAPTER 8: MAKE-OR-BUY DECISIONS IN THE FOCAL ORGANISATION

In pursuit of this study's aim of exploring the potential of SCA to promote both economic and social upgrading, this study explores the SCA practices used by a focal organisation in the textiles industry in Brazil and across its supply chain and examines how these practices impacted upon the wider economic and social context in which the organisations in the supply chain operated. This chapter explores the second of a series of four management accounting and control mechanisms explored in this study: make-or-buy decisions.

Make-or-buy decisions refer to the decision-making process for determining whether to purchase a material from external suppliers (outsourcing) or to produce the material internally (insourcing). (Meira et al., 2010; Du, Lu, & Tao, 2009). Accordingly, outsourcing is generally referred to as the process in which a firm contracts outside companies to perform activities that have traditionally been undertaken internally (Espino-Rodríguez, Chun-Lai, & Gil-Padilla, 2017; Meira et al., 2010; Du, Lu, & Tao, 2009; Lamminmaki, 2008). This chapter explores the rules and routines in terms of make-or-buy decision within CarpetCo. In particular, CarpetCo was undergoing a process of insourcing the production of one of its materials during the data collection, and this process is explored in this chapter.

Literature on make-or-buy decisions tend to revolve around outsourcing. In more recent years, researchers have been studying the process of insourcing (Hartman, Ogden, & Hazen, 2017; Sundquist, Hulthén, & Gadde, 2015; Drauz, 2014). However, this area of research tends to focus on the process of re-insourcing. In other words, insourcing activities that had been previously outsourced (Hartman, Ogden, & Hazen, 2017; Sundquist, Hulthén, & Gadde, 2015; Drauz, 2014). Studies on first time insourcing seem to have been neglected so far.

This chapter is structured as follows. The first section provides an overview of the rules and routines in terms of make-or-decisions within CarpetCo in general. The second section explores the above-mentioned case of insourcing, from the decision-making phase (explored retrospectively) through to the outcomes of the

change, including an exploration of how this case of insourcing may have impacted upon the wider economic and social environment in Brazil. Finally, the third section offers a summary of this chapter.

8.1 Make-or-buy decisions within CarpetCo

Existing literature suggests that make-or-buy are strategic decisions which allow firms to identify their core and non-core competencies in order to determine which functions to outsource and which to keep in-house (Meira et al., 2010). The findings in this study suggest that decisions regarding the source of the materials needed for the production of CarpetCo's final products were mainly determined by the costs and technical characteristics of the material. Moreover, make-or-buy decisions within CarpetCo were generally made by the departments of sales and of new product development (both within the sales and marketing division), with little involvement of the accounting division.

“...this is done by the product development department together with sales. The carpets business is dynamic, the design and models are being renewed on a daily basis, and based on that they have to decide which yarn to use, for what destination, if it is residential or commercial... Based on that they decide which is the yarn needed, for example. Of course that the first question is the cost... But the decision of all this is up to the departments of product development and sales. I know that this is how it works, but I'm not the one who decides. Sometimes it comes to me when it's time to calculate the costs and the eventual selling price, in order to research the market for that carpet, to see if it will sell or not with that price. That sort of thing” (CarpetCo_AccM_Fup)

Previous studies found that management accounting plays a very limited role in outsourcing decisions, often limited to assessing basic accounting figures (Brandau & Hoffjan, 2010). What is more, previous studies show that accounting data tends to be neglected in decision making processes within organisations operating in developing countries (Tsamenyi, Bennett, & Black, 2004). These arguments may help to explain what appeared to be the case in CarpetCo. The decision for changing this process was made at senior management level, by HQ together with the

directors of the three divisions of CarpetCo. The accounting department was only involved at a later stage, to calculate the payback period of the investment. Indeed, as argued before, it seemed that the accounting manager played a more “traditional” role within CarpetCo rather than a strategic one.

“...the decision was made at managerial level, by the owner. It was joint, the directors here with the Headquarters. I started participating from the moment that the payback was prepared, the calculation of the payback. That’s when I came, to calculate how much time it would take to have a return on this investment... But the decision for changing the process was all at that level, of the owner” (CarpetCo_AccM_Fup).

Surprisingly, the supply chain manager was not involved in the decision-making process either, and his only role in the change process was to communicate the change to the former supplier.

“[Who was involved in the decision making] was the industrial director; with the endorsement of the finance director and of the sales director, who definitely participated in relation to the investment in the machinery; and with the approval of the bosses, the CEO and the owner. As for me, I only informed AsphaltCo that we wouldn’t buy anymore... (CarpetCo_SCM_Fup)

8.2 Insourcing within CarpetCo: the case of the asphalt back material

During the first phase of the data collection CarpetCo was going through a process of insourcing one of its raw materials. CarpetCo had previously purchased one of its raw materials (asphalt backing) from a local supplier and had recently decided to make this material in-house. This particular change within CarpetCo’s production process will be explored in the next sub-sections in order to understand the make-or-buy decisions process at CarpetCo in general and the impact of these decisions across its supply chain. More specifically, during the first phase of interviews at CarpetCo (first phase of data collection), the nature of the process change, the decision-making process and the reasons for change were explored. The second visit to CarpetCo (second phase of data collection) enabled an assessment of what had

happened over time. The outcomes of the change were explored through in-depth follow-up interviews within CarpetCo, including the impact of this change on the employment practices and gender equality within CarpetCo and across its supply chain. The next sub-sections will explain this in details. The first section will explain the process change and the decision-making process; the second sub-section will explore the reasons for the change; and the last sub-section will explore the scenario after the change including the impact of the changes across the supply chain.

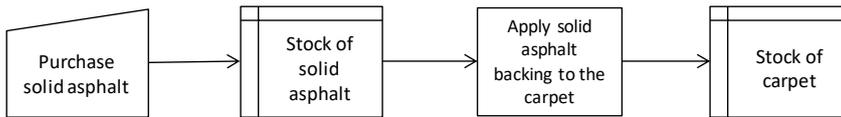
8.2.1 The new process and resulting changes in the inter-firm relationships

As explained above, the process change that CarpetCo went through consisted of the insourcing of one of its backing materials. At the time of the first round of interviews, it was explained that CarpetCo had previously purchased a finished backing material (asphalt backing) from a local supplier and decided to make this material in-house. The production process before the change consisted of bonding the asphalt backing (purchased in rolls) onto the back of the carpet. By making the asphalt backing in-house, CarpetCo would buy the components needed to manufacture the asphalt backing and “throw” it onto the back of the carpet in a liquid form, as explained by the accounting manager:

“...this asphalt backing comes ready from AsphaltCo. It just passes through the machine and is bonded [onto the carpet]. Now a process will be developed in which this backing will be produced in a machine here, but in the form of a liquid... we will buy the components of this backing and will “throw” it onto the carpet...” (CarpetCo_Acc)

The SCM explained the changes to CarpetCo’s supply chain following the implementation of the new process. Before the introduction of the new process, CarpetCo had one supplier for the finished backing material (asphalt backing in rolls), which was based in Brazil. With the new process, CarpetCo used three suppliers for the components needed to produce the asphalt backing in-house. Figure 8.1 shows the asphalt backing process before and after the change.

Asphalt backing process before the change:



Asphalt backing process after the change:

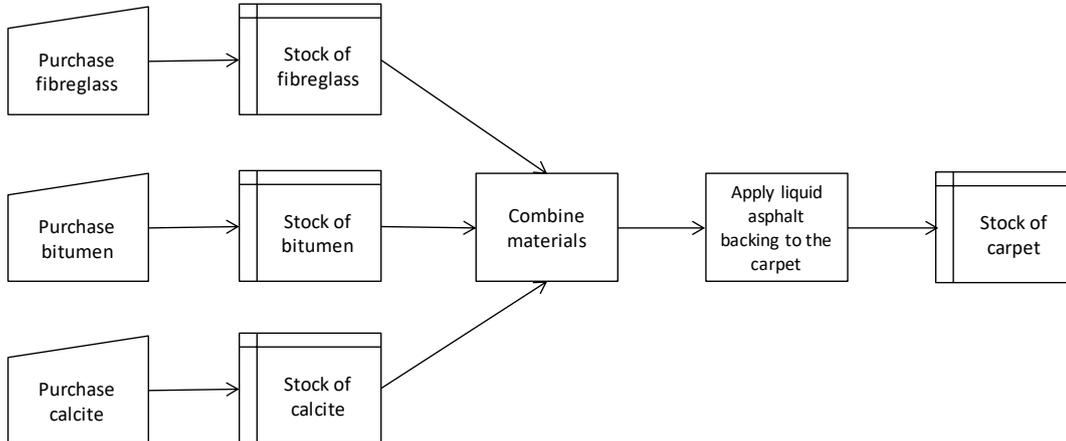


Figure 8.1: Asphalt backing process before and after the change (Source: author)

As seen in Figure 8.1, before the change CarpetCo purchased a solid asphalt backing and, after the change, the supplier for this material (AsphaltCo) was discontinued. After the change, one of the components needed for the new process (fibreglass) was purchased from a new supplier which was located abroad (FibreglassCo); the second new component (bitumen) was also purchased from a new supplier, which was a national and state-owned company (NGO). The third component needed for the new process (calcite) was supplied by a local supplier (CalciteCo). The material supplied by CalciteCo was also used in another process within CarpetCo's production process, and it was already regularly supplied by CalciteCo. Therefore, CalciteCo was not a new supplier, yet the volume of material that they supplied to CarpetCo had doubled as a result of the new process (CarpetCo_SCM). One of the new suppliers (NGO) was a Brazilian firm that operated globally in the oil, natural gas and energy industry, and was one of the largest companies in Brazil. Despite NGO's leadership position in the Brazilian industry, CarpetCo's interviewees did not refer to any issues related to unbalanced power relations when negotiating with them. During the second visit to CarpetCo the quality manager stated that the transaction with NGO went 'smooth'. Moreover, the SCM, also in the second visit

to CarpetCo, expressed that CarpetCo felt that they were relaxed working with NGO because they trusted NGO's good social practices.

Another area of research in the literature of make-or-buy decisions relates to bi-sourcing, whereby firms opt to acquire the same material by both purchasing from external suppliers (outsourcing) and by producing in-house (insourcing) (Du, Lu, & Tao, 2009). The findings here seem to suggest that CarpetCo had adopted a bi-sourcing strategy for the asphalt backing. This was evident in the interviews with the SCM. The SCM explained that CarpetCo was interested in maintaining a good relationship with AsphaltCo because CarpetCo could need to buy the material from AsphaltCo again in the future. In other words, although CarpetCo had implemented a new process to produce the asphalt backing in-house, CarpetCo kept the production process of the finished product (carpets) set up to work with both the material produced internally and the material purchased from AsphaltCo.

“...our industrial director called them here to inform them of this change... because [the backing material] is not going to be 100% ours, the machine will be set up to work with both types of backing, the backing in rolls and also the backing made here. So they have been informed that [our trade] will be reduced, but there is a possibility of still buying [from them]” (CarpetCo_SCM)

Existing literature suggest that an organisation may engage in bi-sourcing in order to learn best practices from an external supplier to be adopted in the internal production (Du, Lu, & Tao, 2009). This argument appears to have been reflected by this study's findings. The SCM further explained that although CarpetCo communicated to the supplier that CarpetCo would stop purchasing the material from them, the supplier was willing to share knowledge with CarpetCo and/or provide training if CarpetCo wanted this to happen.

“In this meeting AsphaltCo said that their doors were open for us, whether someone from here wanted to go there to absorb this knowledge, or we needed someone to come here, to provide training, they've put themselves at our disposal...” (CarpetCo_SCM)

8.2.2 Reasons for the insourcing

8.2.2.1 Cost reduction

One of the main reasons for changing the process was to achieve cost reductions, as suggested by the accounting manager in the first phase of interviews at CarpetCo:

“...this asphalt backing comes ready from AsphaltCo... now a process will be developed in which this backing will be produced in a machine here... because this backing is expensive... this is to reduce [the costs]”
(CarpetCo_Acc)

The SCM attributed the cost reduction to the elimination of the supplier’s profit margin from the cost of acquisition of the asphalt backing. This was because the price of the finished material purchased from the supplier included the supplier’s profit margin and purchasing the raw materials directly from the (tier 2) suppliers would lead to cost reductions (although it was not clear if the SCM was aware of the full costs or if this was an assumption). In other words, this seems to have been a ‘taken for granted assumption’ (ter Bogt & Scapens, 2014; Burns & Baldvinsdottir, 2005; Burns & Scapens, 2000).

“...their manufacturing cost has their profit margin, so if we manufacture it here we will buy the material, the fibreglass, everything that they use, we will buy straight from the supplier. So they purchase from the supplier to sell us” (CarpetCo_SCM)

Despite the aforementioned reductions in the cost of acquisition of the backing material, the SCM acknowledged in his first interview that, in order to make this material internally, CarpetCo would have to buy a new machine (which was imported from an external supplier), incurring a cash disbursement at the initial stage of the project.

“...of course that there is an investment in machinery which will amortized in... say in 6, 5-6 years maybe...” (CarpetCo_SCM)

In the second round of interviews the SCM referred again to the drivers for the cost reduction with the change in this process. This time he referred to the reduction of costs with transport as one of the main drivers for the cost reduction. He explained that with the new process the main base material (bitumen) was purchased locally within a short distance from the plant, and that even after adding other additional expenses incurred with the new process (for example, expenses with energy in order to maintain the stock of the liquid material warm), the change in the process resulted in an overall cost reduction.

“[The main objective was] the cost reduction, because we had a process for this backing outside which, certainly, added value [with] transport and all that. Now I buy the base material here in our city, 10km from here, so I order today and receive the next day. The other material, which is the calcite, is the same one that we already use in another process... the fibreglass is imported, but I buy in container and the amount is small, it is not impactful by square meter. As for the rest – there are expenses with energy to maintain it warm, but even so it is much more attractive than buying it. The [expense with] gas has doubled because the material needs to be kept warm 24 hours a day, but given the quantity that we produce it still is [more attractive]”
(CarpetCo_SCM_Fup)

8.2.2.2 Product quality and technological development

According to the SCM, another main advantage of making this material in-house was to achieve better quality in the final product. In the first phase of interviews at CarpetCo, the SCM explained that the new process would result in a better-quality product due to an improvement in its adherence and density, given that with the new process the material would be directly “thrown” onto the back of the carpet in a liquid form rather than being bonded onto the back, the adherence of the backing onto the carpet would be improved. As for the density, the SCM explained that with the new process the density of the carpet would be more precise because the

manufactured material could vary from 1.8 mm to 2.3 mm, and with the new process the material would always have precisely 2 mm.

“...it will have [better] adherence and density, because the asphalt backing from AsphaltCo is a backing of 2 millimetres [and] it can vary from 1.8 to 2.3, if I’m not mistaken... And our application will be direct... so it will always be 2 millimetres... we will save material too. So we will migrate to a better quality material, with the same characteristics, but with a lower cost” (CarpetCo_SCM)

In the second phase of interviews the SCM said that with this change the machinery had become “top”, suggesting that the new process resulted in technological development for CarpetCo.

“[The machine] that used to be in the back [of the plant] at the very beginning was later brought here [to the finishing stage] and ran for 2 years with [the backing from] AsphaltCo... After 2 years running with [the backing from] AsphaltCo, the other part has been included, it was attached. This is the second alteration that we make in this machine. The very first one was medieval. Now it is top. Now we are buying a press, then with this press it will be one of the most modern in the world.” (CarpetCo_SCM_Fup)

The finance director echoed the sentiment that the investment made in the new machinery for the new process positioned CarpetCo’s as a modern plant, suggesting achievement of technological development.

“In a single year we invested 10 million reais – 5 million and now 5 million more. At the end of the year our press will arrive, to make [carpet in] plaques that are ideal for the Brazilian market, which could compete in price. In quality it competes, but in price it doesn’t... So we invest, think about the future. I believe that we really will be, within one year, the most modern factory of carpets in plaques in South America” (CarpetCo_FinDir)

The findings here suggest that CarpetCo may also have engaged in this process in order to achieve legitimacy (Ball & Craig, 2010; Scapens & Varoutsas, 2010).

8.2.2.3 Inter-organisational factors

Existing literature suggests that make-or-buy decisions should include considerations of the coordination and control costs associated to the inter-firm relationship (Espino-Rodríguez, Chun-Lai, & Gil-Padilla, 2017; Meira et al., 2010; van der Meer-Kooistra & Vosselman, 2000), and transaction characteristics such as asset specificity (Espino-Rodríguez et al., 2017; Lamminmaki, 2008). The findings here suggest that the insourcing was also driven by inter-organisational factors such as behavioural uncertainty (Dekker, Sakaguchi, & Kawai, 2013; Ding, Dekker, & Groot, 2013; Kumra, Agndal, & Nilsson, 2012; Agndal & Nilsson, 2010; Dekker, 2004, 2008). For example, the accounting manager stated in his first interview that by making the material in-house CarpetCo would achieve independence from the supplier of asphalt backing, thus reducing behavioural uncertainty arising from supplier-buyer dependency.

“...we’re on the hands of the supplier... this is not good...” (CarpetCo_Acc)

The SCM suggested that the change in the process (using the asphalt backing in a liquid form rather than in rolls) could not have been achieved through collaborative efforts with the supplier. He explained that since the new process consisted of throwing the material in a liquid form onto the back of the carpet, it could only work in-site during the production of the final product (carpet). Therefore, if the change in the process were to have been carried out by the supplier, the supplier would have had to install a unit at CarpetCo’s plant.

“...they would have to install the machinery here. Because it only works running here, at the time of the production of the carpet... even if they modernized or changed anything there, it would keep the same characteristics; it would have to come in rolls. Unless they, say, made an investment in machinery for us and then supplied us, if they came here

with their workforce to manufacture everything...” (CarpetCo_SCM)

The SCM believed that AsphaltCo would not be interested in making this investment because CarpetCo was not a significant buyer for them in terms of revenue, and the material that AsphaltCo supplied to CarpetCo was not part of AsphaltCo’s core business. However, he admitted that he never asked the supplier whether they wanted to make this investment. SCA was not institutionalised within CarpetCo, therefore they did not seek for collaborative actions with the supplier. Instead, they assumed that the supplier would not be interested (a taken-for-granted assumption). From an institutional perspective, the previous institutions (SCA not institutionalised) shaped the new routines (process insourcing) (ter Bogt & Scapens, 2014; Burns & Baldvinsdottir, 2005; Burns & Scapens, 2000).

“...AsphaltCo is big. Once we asked what was the size of CarpetCo within AsphaltCo... Of course that the revenue was big, because their material is expensive, but we represented around 2%... they said that every client is important, but their segment is very big... surely they have other segments in which, if they invested the same amount... [Their product is used in] construction, for water sealing for pavement, for soil... they have automotive segment... They have many segments, so... they would surely have a much higher return if they invested somewhere else” (CarpetCo_SCM)

8.2.2.4 Influence of other firms from within the group

The change in the asphalt backing process may also be explained by different isomorphic pressures (DiMaggio and Powel, 1993). For example, mimetic isomorphism occurs when an organisation imitates the systems in use by other organisations perceived to be more legitimate or successful (Brandau et al., 2013; Tsamenyi, Cullen, & González, 2006; Moll, Burns, & Major, 2006; DiMaggio & Powell, 1983). The findings in this study suggest that CarpetCo seemed to be imitating the process used by another firm within the same company group (TapisCo), which was also a carpet manufacturer but operating in a different country (Eurocountry2). TapisCo seemed to be perceived by CarpetCo as more successful. This was evident

in the interviews with the supply chain manager (SCM) within CarpetCo. The SCM explained that TapisCo already made this material (asphalt backing) in-house as part of its production process. The SCM mentioned the production system used by TapisCo in his first interview (during the first round of interviews), then again in his second interview (during the second round of interviews nearly one year later).

“...the production supervisor and the employee who is taking care of the implementation of this new machine went to (EuroCountry2) last month to visit the plant of TapisCo, which uses this same system for this production. They are from the same group too. So they went there to learn how the set-up is made, how the application works, to bring this knowledge here...” (CarpetCo_SCM)

“Within TapisCo, which is one of the companies of the group, they already use this production system. So our employee with the supervisor went to TapisCo, to visit the plant, to see the process... (CarpetCo_SCM_Fup)

Simultaneously, the process change within CarpetCo may also be explained by an account of normative isomorphism. Normative isomorphism relates to the adoption of internal structure and procedures encouraged by influential actors, such as consultants and professional bodies (Brandau et al., 2013; Tsamenyi, Cullen, & González, 2006; Moll, Burns, & Major, 2006; DiMaggio & Powell, 1983). The findings here may suggest that the firm from within the same company group that already used this process (TapisCo) may have played a role as an influential actor. Moreover, Brandau et al. (2013) suggest that normative isomorphism may also be a reaction to normative pressures from the networks in which an organisation is embedded. The findings here suggest that a firm that is part of a larger company group may face normative pressures to adopt similar structure and/or practices.

8.2.3 Impact of the insourcing on the economic context

In the second round of interviews, the SCM said that CarpetCo had achieved all its objectives with the implementation of the new process, including costs reduction.

“[The new process] is doing very well. It accomplished everything that we expected... We adapted very fast to the new machine, it was very tranquil. I believe that in relation to costs too, they have reduced significantly” (CarpetCo_SCM_Fup)

The accounting manager corroborated that CarpetCo achieved its purpose of cost reduction with the change in the process of the asphalt backing. He explained that the insourcing resulted in a cost reduction of 60% in the process of applying the asphalt backing to the carpet, and that this resulted in a cost reduction of 17% in the final product (Therefore it can be calculated that the asphalt backing material accounted for 25% (17% divided by 70%) of the costs of the final product).

“The cost reduction was significant. It was around 17% on the cost of the final product, and in this process alone – the process of changing from solid backing to liquid backing - it was 60%. But it represented 17% at the end of the production” (CarpetCo_AccM_Fup)

Moreover, the SCM explained that the reduction in the cost of the final product achieved with the new process enabled CarpetCo to avoid increases in the sales price of the final products to the customers.

“The last general rises in everything were not passed on [to the customers]. Everything went up... There were some products of the modular [carpets line] of which we managed to hold the sales price due to this new process, otherwise it would have increased a lot, because AsphaltCo had already signalled a big rise, because their process became expensive too” (CarpetCo_SCM_Fup)

The quality manager also referred to the cost reduction achieved with the change in asphalt backing process in the second phase of interviews. He explained that the new process resulted in cost reductions in the entire production process, including costs with transports, given that the backing came to be made locally (in-house).

“...the market of the backing in plaques is practically dominated by the USA, and our price was too expensive. Not anymore. Today we make it ourselves. So we also reduced costs with transport and within the entire production process. Now we get the bitumen locally, so it has become much easier. And we have become more competitive as well”
(CarpetCo_QM_Fup)

Additionally, the quality manager explained that the process of insourcing also resulted in reduction of waste and residues, indicating that the new process also had a positive impact to the environment.

“... the residue in this process of the asphalt backing went to virtually zero, because the backing used to come finished, so we would always lose a piece of it. Additionally, there was the packing and everything. Today it comes in bulks and liquid, and we only apply the correct amount. So this process itself has zero residues. Unless there is a problem...”
(CarpetCo_QM_Fup)

Given that this study mainly focuses on the impact of the SCA practices on the economic and social context in which the organisations operated, the impact of the insourcing on the environment, despite its importance and influence on both the economic social context, is not drawn upon heavily here.

8.2.4 Impact of the insourcing on the social context

It has been argued that economic upgrading does not necessarily lead to social upgrading (Barrientos, Gereffi, & Rossi, 2011; Hale & Wills, 2007; Barrientos & Kritzinger, 2004). Barrientos, Gereffi, & Rossi (2011) argue that there are different types of economic upgrading, and that these may have different implications for workers. For example, economic upgrading may involve the introduction of more advanced products (product upgrading), and therefore it may require more skilled labour (Barrientos, Gereffi, & Rossi, 2011). Economic upgrading may involve production process improvements (process upgrading) which may be achieved by automation (e.g. substituting capital for labour), and therefore it may reduce work for skilled and/or unskilled labour (Barrientos, Gereffi, & Rossi, 2011). The findings

in this study are not entirely consistent with the contentions made by Barrientos, Gereffi, & Rossi (2011). According to the accounting manager in his first interview, there were about 5 employees working in the production process that changed (bonding the asphalt backing in rolls onto the carpet). In the first phase of interviews at CarpetCo the HRM explained that CarpetCo would need to hire two new employees to work on the new machine, but in the second phase of interviews the HRM explained that CarpetCo had hired only one new employee. Therefore, the findings in this study do not support the contentions made by Barrientos, Gereffi, & Rossi (2011) in relation to process improvements (process upgrading). The findings here show that the new production process did not reduce work but, on the contrary, increased work given that CarpetCo had hired one new employee to work on this process.

The new process also involved physical changes in the plant. These changes involved attaching the new machine (which would throw the liquid asphalt backing onto the carpet) into another existing machine within the finishing stage of production process. This physical change in the plant was executed by a contractor company who allocated its workers within CarpetCo during the transition period, as explained by the accountant and the QM in the first phase of interviews at CarpetCo:

“We are hiring a firm and this firms’ employees will be here installing the new machine... it is a service provider” (CarpetCo_Acc)

“There are outsourced workers here now, who are working on the construction where we are expanding the production process. They are outsourced... they are contractor, like if they were a construction company... we hired a company and this company will allocate its employees here” (CarpetCo_QM)

Also, a team from the manufacturer of the new machine was working within CarpetCo during the transition period in order to provide technical support with the installation and training for the use of the machine.

“The workforce from (Company name), which is the manufacturer of the machine that will be installed, will come here and will stay during the whole implementation of this system, they will provide training...”
(CarpetCo_SCM)

After the implementation of the process was completed, the SCM explained that the transition period lasted approximately 3 months, and that the machine to which the new equipment was attached was stalled during this period.

"[The machine of the asphalt backing process] stopped for almost three months... it was a total of about 3 months of transition period... There were a few days that [the machine] worked. We had a material - the asphalt backing in roll – that we were keeping specifically for this. Materials that the customers needed we produced, but in alternate days, we produced one day and then only after 4 or 5 days - only for emergencies. But the production of machine itself was cancelled... We had a small stock of backing in roll from AsphaltCo, waiting for our machine. We could not have a lot of material here to avoid accumulating”
(CarpetCo_SCM_Fup)

Although the machine was mostly stalled during the transition period, the SCM explained that none of the employees who worked in the machine were dismissed; instead these employees were allocated to work in different tasks during the transition period, sometimes helping with the alterations in the asphalt backing process machine, sometimes helping in other stages of the production process, and occasionally running the asphalt backing process machine using the old setting in some cases where urgent needs of materials arose.

“...the [workers of the] finishing department were able to help in other departments during this period... they were reallocated during this period, helping other departments. They did not take annual leave because there were these emergency productions that they had to do. So it was taken advantage to do other [things]... while the personnel [from the manufacturer of the machine] were making the alterations in

the machine, they [employees] were cleaning, painting... so they helped to renovate the machine... No one was dismissed because of this”
(CarpetCo_SCM_Fup)

An important impact of this change on the workers was the training and qualification provided. Therefore, the findings here support Barrientos, Gereffi, & Rossi’s (2011) assumption that when economic upgrading involves the introduction of more advanced products (product upgrading), it may require more skilled labour. As explained by the SCM in his first interview, the workers involved in the process change received training from the other firm from within the company group which already used this process before CarpetCo, as well as from the manufacturer of the new machine, combining technological advancement with employee training and development.

“...the production supervisor and the employee who is taking care of the implementation of this new machine went to EuroCountry2 last month to visit the plant of TapisCo, which uses the same system for this production. They are from the same group too. So they went there to learn - how the set-up is made, how the application works, to bring this knowledge here. The workforce from (Company name), which is the machine that will be installed, will come here and will stay during the whole implementation of this system, they will provide training...”
(CarpetCo_SCM)

8.3 Summary

This chapter explored the rules and routines in terms make-or-buy decision within CarpetCo. In particular, this chapter explored a process of insourcing one of CarpetCo’s raw materials which had recently been undertaken aimed at reducing costs and improving quality of the final product. This chapter explored such process of insourcing, including the decision-making phase (explored retrospectively), through to the outcomes of the change. The findings here suggest that to a certain extent management accounting data played a role in the make-or-buy decision; however, the decision was made at senior management level (directors, CEO and

HQ), with little involvement of the accountants within CarpetCo in Brazil. The findings also suggest that the achieved cost reduction with the insourcing positively affected CarpetCo's customers, given that the company was able to avoid price increases due to the reduction of production costs. As for the suppliers, this insourcing led CarpetCo to stop trading with the former supplier of the raw material, which was a national (Brazilian) firm. On the other hand, the insourcing resulted in new businesses with two other national suppliers and one external supplier. This new process also involved a significant investment in modern (imported) machinery, contributing to the technological development of the industry. As for the employees, the implementation of this new process did not significantly create new jobs within CarpetCo, but it did involve the employment of temporary work within the plant in order to implement the new machine.

Moreover, this chapter explored how this case of insourcing may have impacted upon the wider economic and social environment in Brazil. The findings here suggest that the process of insourcing undertaken by CarpetCo impacted upon the wider context of the textiles industry to some extent, given that this process generated technological development within the company and thus in the industry. Accordingly, this process also promoted employee skills development through training for performing the new process in-house, thus combining technological advancement with skill development.

CHAPTER 9: CUSTOMER ACCOUNTING IN THE FOCAL ORGANISATION

In pursuit of this study's aim of exploring the potential of SCA as a means to promote both economic and social upgrading, this study explores the management accounting and control mechanisms (or SCA practices) used by a focal organisation in the textiles industry in Brazil and across its supply chain, focusing on examining how these practices impacted upon the wider economic and social context in which the organisations in the supply chain operated. This chapter explores the third of a series of four management accounting and control mechanisms explored in this study: customer accounting.

Customer accounting (CA) can be broadly defined as a firm's internal practices used to measure and manage their customer relationships (Caker & Strömsten, 2010). CA involves, for example, the use of accounting techniques to measure customers' performance in terms of profit contribution (Lind & Strömsten, 2006; Guilding & McManus, 2002) which, in turn, informs decisions that impact upon the inter-firm relationships across the supply chain. This chapter explores the relationship arrangement between CarpetCo and its customers and the accounting techniques used by CarpetCo to measure their customers which shaped such relationship arrangements. Focus is given to both financial and non-financial measurement of customers.

9.1 Customer relationships

As explained in Chapter 6, CarpetCo's product line was divided into two main 'segments' (product groups): residential and commercial, and the end-customer base included homes, offices, hotels, airports, and commercial environments. CarpetCo sold mainly to the internal (Brazilian) market, and exports represented only 1% of the business (CarpetCo_FinDir). Exports were exclusively within South America, with customers in Mercosur (the economic bloc formed by Argentina, Brazil, Paraguay and Uruguay) and Chile. Within Brazil, Sao Paulo was the largest market, representing 45% of sales (the distribution of the company's turnover by

region according to information given by the financial director is shown in Table 6.1 in chapter 6).

9.1.1 Customer choice: business-to-business arrangement

CarpetCo did not sell directly to end-customers, and all the direct customers were retailers (CarpetCo_FinDir). In other words, CarpetCo operated with a business-to-business arrangement rather than a business-to-consumer arrangement. Both the finance director and the industrial director emphasised that CarpetCo did not want to sell its products directly to the end-customers. The finance director further explained that CarpetCo chose this sales strategy in order to be able to focus on their main activity, which was manufacturing. CarpetCo was concerned with manufacturing the carpets and selling them to the retailers, and the trade with the end-customers, including sales, logistics, installation and after-sales service, was left to the retailers.

“I sell to the retailer and the retailer sells to you. Each in their own chain, just right. I manufacture the carpet and put it in stock. You come here as a retailer and buy, sell, install. The final customer uses it, steps on it. Done, everything just right. I cannot bypass everyone and go there. If there is a problem, [if] the installation was not good, they would have to come back to me and I don't have this workforce to attend them and I don't want to have it at this moment”
(CarpetCo_FinDir)

“How can we sell directly to a person in Rio Grande do Sul, which is 2.500 km away from here? Who is going to install? Who is going to do all the logistics? Who is going to do this and that? We can't do this. We don't want to do this. That's why we have our customer”
(CarpetCo_IndDir)

Another reason for CarpetCo to choose this sales strategy was because this arrangement also allowed the company to trade large-scale volumes. While selling only to retailers, CarpetCo could sell large quantities to its direct customers

(retailers), and the retailers sold small volumes to the end-customers. The finance director said that sometimes the end-customers approached the company seeking to buy CarpetCo's products directly from CarpetCo rather than buying from a retailer, but CarpetCo refused to sell directly to these end-customers and told these end-customers that they would be better off buying from the retailers, because the retailers were able to sell at lower volumes and also at better prices, given that the retailers were often given discounts based on the volume of their order.

“...[we tell the final customer] you are not a bad customer, but keep buying from the retailer. I won't be able to attend you, I will have to charge you at a base price list and it will not be interesting. Keep [buying] there and you will also be able to buy only 2 meters, and you will be well served” (CarpetCo_FinDir)

Moreover, with this sales strategy CarpetCo could centralise its distribution with a smaller customer base. As explained by the finance director below, having a small customer base facilitated finance operations and reduced the risk of bad debts.

“... so [the retailer] has a lot of small customers and I would rather give support to him and have him serve the small ones than having all these small ones coming to me. The same way that the government does, they take money from us instead of charging everyone; [the government] charges only the one who they know that will pay. So I do the same thing with Customer1. I sell everything to him, charge only from him and he goes after [the small ones]” (CarpetCo_FinDir)

In the quote above the finance director refers to the government's strategy of tax collection, whereby the government collects some taxes from the larger players in the industry on behalf of the smallest ones. For example, if CarpetCo contracted a maintenance service from a small firm, CarpetCo was responsible for collecting the income tax incurred on that transaction on behalf of the service provider, and CarpetCo would then deduct this amount from the payment to the provider. The

finance director indicated that CarpetCo's sales strategy allowed a revenue collection that resembled the Brazilian Government's revenue collection strategy.

9.1.2 Product customisation

As explained above, all of CarpetCo's direct customers were retailers, and the end-consumer base included both residential and commercial customers. The products sold to residential customers were standard products, whereby CarpetCo was responsible for developing the products, defining characteristics such as design, colour, and type of yarn; and the retailers displayed the standardised products to the final customers.

Some of CarpetCo's direct customers (retailers) were also wholesalers. These retailers distributed CarpetCo's products to other smaller retailers and also served residential and commercial end-customers (banks, hotels, airports, offices). The commercial (corporate) end-customers usually required some degree of product customisation, which demanded large projects involving CarpetCo, the retailer and the end-customer. For example, CarpetCo sometimes developed a specific carpet design or used a differentiated yarn colour for a specific customer, as explained by the sales director.

“...today we have 2 products specific for Bank1, but it has taken 3 years of work, making samples, designing, until it was approved... we supply these 2 products to Bank1 all over Brazil. But these are products developed together with the department of engineering in the bank, these are slow processes... in this case we don't [sell to other clients]. We create a design, which they said: “look, can you make it, is it possible to make it...” then it passes through the departments of architecture, engineering, then they close the deal and approve, then they start consuming” (CarpetCo_SD)

These product customisations did not involve investments in specific machinery, for example. CarpetCo had to make some investments to meet specific requirements from some customers, but these were limited to purchasing different

types and colour of yarns, as well as investing time in order to develop specific designs, as explained by the sales director.

“...What we have are yarn colours, types of yarn, [but] in the same machinery... investment is to create the samples, going there, coming back – it’s 3 years’ worth of investment – visiting, traveling... it’s a big investment... Human, money, traveling...” (CarpetCo_SD)

9.1.3 Mutual dependency

According to the finance director, CarpetCo’s sales strategy led to a certain degree of company dependency on their customers. She believed that, given that CarpetCo did not sell its products to the end customers, CarpetCo depended on its direct customers (retailers) in order to have access to the market (in other words, to reach the final consumers). At the same time, she believed that CarpetCo’s customers (retailers) also depended on CarpetCo because, once the retailers sold the products to the final consumers, they needed CarpetCo to manufacture those products. The finance director described their relationship with their customers as one of mutual dependency. Interdependency is related to levels of uncertainty (Agndal & Nilsson, 2010).

“...we depend on them because if they don’t believe in this kind of floor covering we don’t exist. Once they believe in CarpetCo, they respect CarpetCo because if the company doesn’t exist, they will have to sell something else. So it’s completely mutual” (CarpetCo_FinDir)

9.1.4 Personal relationships and trust

CarpetCo maintained different relationships with their main customers, referred to as the top 10, from those with other customers. The top 10 customers bought the products at different prices to those paid by other customers, with the prices usually being around 10% below the standard price list. Moreover, the company sought to maintain *personal relationships* with the top 10 customers, including informal social occasions as described by the finance director below. These close

relationships promoted trust and facilitated information exchange both at a formal and informal level, as will be explored in the next chapter.

“With some [customers] we really have [a close relationship]... we have a relationship in which we like to bring them to the plant, and the top ones we usually invite to our home for dinner, or we go out together... The sales director is a very humble person, and he knows a wonderful group of musicians, and we take the top ones to listen to the music. My husband joins us; we always gather the families... For example, we are bringing the retailers from Rio de Janeiro. They arrive on Saturday, Saturday night we will go for pizza, on Sunday we will have a barbecue all day long, and on Monday morning they will come here to learn about what they are selling. They will have lesson on Carpets, have lunch and leave. So this is the relationship of CarpetCo with their customers. With the top ones is always like that. The top ones are top... it is not about differentiating, but we end up bonding. It’s not just about self-interest... They are good people, honest people, who come and tell you if they won’t be able to pay, who you can trust... So they deserve that we abandon our family if need be, to have dinner with them and talk, if that’s the case. Our relationship is great” (CarpetCo_FinDir)

9.1.5 Cultural context

The sales director also referred to the personal relationships maintained with customers, and he suggested that CarpetCo’s management regarded cultural sensitivity as an important factor to consider when building relationships across the supply chain. As explained above, 99% of CarpetCo’s customers were based in Brazil and 1% of the customers were based in other countries in South America, therefore all customers were Latin Americans. CarpetCo’s owner was originally from Europe, but he acknowledged that for Latins it was important to meet their stakeholders face-to-face and to maintain personal relationships with them. For this reason, CarpetCo’s owner, who was based abroad, sought to meet all his customers personally and visit his main customers every time he went to Brazil.

“[We went to] a client in São José dos Campos - it was the first time that our CEO went there, they are a rather new client... they are 70 Km from (Company name) who is a big competitor of ours in vinyl flooring, one of the biggest in the world. It's not even 70 it is 15Km, or 20Km. They don't know the managing director there. He said: “I can't believe this, (Owner name) came all the way from (country name), came here to visit, and the guy is 20Km [away] and he never came here to have a coffee with me”. Today (Owner name) knows 90% of our clients. He knows them personally, [to the point] of having coffee. Small, medium, big, all of them – 90%. In our segment, in our business, where most of the companies are family businesses, and they are Latin, this is very important. Maybe it doesn't make a big difference in Germany or in... He visits, stays for an hour, sometimes doesn't even talk about business. So this is a very strong characteristic of CarpetCo” (CarpetCo_SD)

Another factor regarded important to consider when building relationships with customers was whether or not the customers were *family businesses*. As explained by the sales director above, most of CarpetCo's customers were family business and CarpetCo's owner believed that for family businesses it was important to maintain personal relationships.

Lind & Strömsten's (2006) model of choice of customer accounting technique is based on a firm's technical and organisational interface with its customers. CarpetCo's relationship with its direct customers (retailers) involved high organisational interface, whereby CarpetCo sought to build long-term relationships with its main customers. In relation to its products, CarpetCo had a low technical interface with its customers. Most products sold to retailers were standardised and, in some cases where end-customers required customisations, these products did not considerably differ from the standard ones.

9.2 Customer Accounting techniques

Existing literature suggests that customer accounting helps firms make decisions in relation to which customers to prioritise (see, for example, Lind & Strömsten, 2006). These findings were also reflected in this case study. CarpetCo used customer accounting techniques, including customer profitability analysis (contribution to profit left by each customer) and sales revenue analysis by region and customer, in order to define who were its main customers (referred to as top 10).

As explained above, CarpetCo's direct customers were all retailers, and the customer segmentation was mainly geographical. CarpetCo divided its customer base into five groups of customers according to their geographical location: Sao Paulo; South and Southeast of Brazil (excluding Sao Paulo); Midwest; North and Northeast; and Exports (countries within the Mercosur and Chile). CarpetCo measured sales revenue (turnover) by region, and within each region CarpetCo also measured sales revenue by customer. For example, Sao Paulo was CarpetCo's largest market, representing 45% of the company's sales revenue. CarpetCo also maintained records of the 'top 10' customers within each region, which were the ten customers with the highest sales revenue within each region. Within Sao Paulo, the 'top 10' customers represented 70% of sales in the region (thus it can be calculated that the top 10 customers in Sao Paulo represented 32% of the company's total sales revenue).

This information was used to make decisions in relation to which customers to prioritise. For example, the main customers bought the products at different prices to those paid by other customers, with the prices usually being around 10% below the standard price list. This information was also used to make decisions in relation to which customer segment (regions) to prioritise. For example, Sao Paulo represented the biggest market in terms of sales revenue, and CarpetCo chose to prioritise this region in relation to product delivery. Only within this region CarpetCo sold products with next day delivery. In fact, prompt delivery was one of CarpetCo's main competitive advantages given that most of CarpetCo's competitors in Brazil did not have stocks of finished products to sell with prompt delivery, and yet CarpetCo chose to use this strategy only within Sao Paulo.

“Today [the product] leaves at 5:30pm, our last departure time, and tomorrow you receive it at 9:00am. Where else do you have that? Nowhere. Not even online [shopping], nowhere. If you go now to (local retailer name) and buy a TV, they will deliver to you next week. CarpetCo [delivers] overnight. This is another point where we are always evaluated at the top. But this is [possible] because we have Carrier1, which provides this service – a great carrier. I mean in Sao Paulo though. The other states demand more time...”
(CarpetCo_FinDir)

Seal et al. (1999) note that “Strategic choice is affected by the competitive drivers in the industry” (Seal et al, 1999, p308). It seemed that CarpetCo’s competitive driver was the prompt delivery, given that within Brazil all their competitors were imported. In fact, the finance director suggested that prompt delivery was an important differential of the company; and yet this strategy was used only within Sao Paulo. The sales director and the sales coordinator also referred to the prompt delivery as being one of CarpetCo’s main competitive advantages. For example, the sales director explained that most of CarpetCo’s competitors in Brazil were importers, and their only competitor that was a manufacturer of carpets within the country did not have products for sale in stock (their customers had to put an order and wait for the production).

Furthermore, it seemed that the information of sales revenue by region had the potential to promote better employment practices across the supply chain. For example, the finance director explained that CarpetCo used the services of a contracted carrier to be able to provide next day delivery to Sao Paulo and, given the importance of the service provided by this carrier to CarpetCo’s sales revenue, CarpetCo seemed to (informally) monitor the employment practices of this carrier. For example, when CarpetCo noticed that this carrier did not provide safety equipment to its employees, CarpetCo gave the equipment to them and advised the carrier that they had to have that equipment as a minimum.

“Carriers don’t have a forklift. Carrier1 does not have a forklift. A Carrier! We made some trolleys for them to move the boxes... for

ergonomics... We gave it to them. We told them that they had to have at least that... But they provide a perfect delivery service” (CarpetCo_FinDir)

The information of sales revenue by customer seemed to be used to make decisions on which customers to prioritise. For example, the finance director explained that Retailer1, their top customer within Sao Paulo, was the customer who paid the lowest price for CarpetCo’s products.

“Retailer1, who is the customers that buys every day, has the worst price – which is the best for him...” (CarpetCo_FinDir)

9.2.1 Customer profitability analysis

In terms of contribution (sales revenue less costs), the customer profitability analysis undertaken by CarpetCo involved the calculation of the contribution left by each customer (rather than by groups of customers or segments). CarpetCo maintained records of the contribution to profit left by each customer in a given period (usually monthly and annually), as explained by the accounting manager.

“We make a projection. We pull the information out of the system, by product and by invoice... Then we summarise at the end of the month by product and by customer. Monthly and Accumulated - for the year and “year to date”... We have the contribution by customer, we go all the way down to the level of the contribution, of the margin” (CarpetCo_AccM_Fup)

Customer accounting including customer profitability analysis was controlled by the Sales and Marketing division, as explained by the finance director:

“...the department that has the best controls is the sales department. Anything you need from a sales department. if you mention sales, we know who bought, what they bought, how much they bought, what colour they bought, how much they paid, what margin and

contribution they left. That is monthly, daily, however you want it. I mean, it depends on AccMgr closing the cost" (CarpetCo_FinDir)

Although the main responsibility for customer accounting was attributed to the Sales and Marketing division, the Accounting department played an important role in calculating the costs of the products sold. As explained by the finance director above, the sales division depended on the accounting manager in order to be able to identify the contribution left by each customer. In other words, the Sales and Marketing division kept detailed records of sales to each customer, including sales price and sales volume, but they could only calculate the contribution left by each customer (sales price less cost) once the accounting manager calculated the unit costs and provide them to the Sales and Marketing division.

In a study examining the implementation of customer accounting in a case study organisation, Fish et al. (2017) found that despite the implementation of customer accounting techniques, managers tended to rely on their intuition in relation to customer profitability analysis rather than on data. These findings seem to be reflected in this study. For example, although CarpetCo performed customer segment profitability, at the same time it seemed that CarpetCo chose which customers to prioritise based on other factors such as personal relationships built over time. For instance, CarpetCo had a differentiated relationship with its "number one" customer. CarpetCo maintained a personal relationship with this customer, including informal social occasions, and this customer was often prioritised in relation to service. However, surprisingly, this customer paid lower prices to those paid by other customers. It seemed that this customer was prioritised irrespective of his current contribution to the company's profit. Therefore, it seems that customer accounting may have been adopted in a ceremonial way in order to gain legitimacy (Dambrin, Lambert, & Sponem, 2007). In other words, CarpetCo frequently produced customer performance measurement reports in order to look professional and gain legitimacy, but in practice the customers who were prioritised were those with whom CarpetCo had built a personal relationship over time.

One of the reasons why CarpetCo sought to maintain personal relationships with its main customers might be explained by the need for multinational corporations

to gain legitimacy in a foreign country (Kostova & Roth, 2002). More specifically, they “experience the pressure to adopt local practices and become isomorphic with the local institutional context” (Kostova & Roth, 2002, p. 215). CarpetCo was part of an international group of companies operating in Brazil. The company’s owner was originally from Europe, but he believed that for Latin Americans it was important to meet their stakeholders face-to-face and to maintain personal relationships with them. Therefore, he sought to meet all his customers personally and to visit his main customers every time he went to Brazil (adopting local practices).

Some authors argue that one of the purposes of socialisation is to build mutual trust between “boundary spanners” (the individuals involved in the management of inter-firm relationships), which could “compensate for incomplete controls and increase the functioning of existing controls” (Dekker, 2016, p. 97). To some extent, this study’s findings support the contentions above. For example, another reason for CarpetCo to seek to build personal relationships with its main customers was because most of the company’s customers were family businesses. CarpetCo’s owner believed that for family businesses it was important to maintain personal relationships with their stakeholders. Therefore, it could be argued that by building personal relationships with these customers CarpetCo was seeking to build trust with these customers.

9.2.2 Pricing decisions

For pricing decisions, CarpetCo used the cost-plus pricing technique, whereby sales price was calculated by adding a profit margin (mark-up) to the cost of the product; and CarpetCo used the absorption method to calculate unit costs. The sales price was revised every six months (CarpetCo_FinDir).

“When we ask [ourselves] ‘how do we make the price?’ [We] get the AccMgr’s spreadsheet... It is a massive spreadsheet with all the information for price formation, which is totally restricted to finance, sales and to the CEO of the company. It comes from the start, including how much we pay on wages... we have all that information.

Maybe it does not include the entire chain, but we have all our costs in there. After that, we close it. My finished costs is here: R\$20. Now there are taxes, commissions, freight, it is now 'x'. Now my mark-up. Well, I need to have a contribution of 20% for this product. Sales price: 'y'. I always work with worst price, always. So in the worst condition I have 20. Then I will work backwards. In the best condition I have 30. So I will try and sell as much as I can at the best condition. If I can't, my limit is for Retailer1, who is the customer that buys every day..." (CarpetCo_FinDir)

These findings also suggest that cost plus was a generally accepted pricing method. In other words, the buyer (in this case CarpetCo) would accept the price increase as long as the supplier could justify the increase in their costs. Interestingly, Kumra, Agndal, & Nilsson (2012) conducted a study of OBA practices in India, also an emerging economy, and found similar results. The authors conducted an empirical study in a very different industry, a manufacturer of equipment, and they found that there too the cost-based pricing method was generally accepted for determining prices.

For exports, CarpetCo used a different pricing technique. As explained in Chapter 7, exports represented only around 1% of CarpetCo's sales. Exports were exclusively within South America, with customers in Chile and in Mercosur (the economic bloc formed by Argentina, Brazil, Paraguay and Uruguay). As explained by the external trade manager, CarpetCo was not competitive enough to be able to sell to the external market outside of Mercosur.

"CarpetCo was established to serve Mercosur. Our prices are not competitive to serve other countries rather than those within Mercosur" (CarpetCo_Comex)

The finance director explained that the sales price for exports was calculated based on marginal costing (rather than absorption costing used for the Brazilian market); therefore, sales to the external market only covered direct variable costs. The finance director explained that CarpetCo chose to export to these countries even

though exports were not profitable in order to maintain its presence in this market. Therefore, it seemed that CarpetCo believed that this market could be profitable in the future, characterising a form of use of the customer valuation analysis technique (Lind and Stromsten, 2006).

“...[exports] represented, in golden days, 40% [of sales]. Thank God it doesn't anymore, otherwise we would be nuts, because today we work with marginal cost for exports. Marginal cost covers only material and consumable costs. Everything else – employees, administrative, energy, water – all that is at the expense of the other products... In other words, I don't include labour and other administrative expenses in this. I include only how much was spent on yarns, latex, etc. It was spent R\$10, so I will keep R\$1 for me and sell for R\$11. Including everything else it was spent R\$15, but I ignore those R\$ and consider R\$10. This is the marginal cost. I look at my marginal cost and build the price on that. This gives me nothing. Only for exports, that is to keep our name alive. There isn't anyone attending these markets, apart from Chile that is an open economy and receives from everyone with no import duties. Within Mercosur we have the exemption, but even so, with 30% difference, we can't sell... Argentina is a catastrophe... so we do that to maintain. If we were to live off exports you wouldn't be sitting there”
(CarpetCo_FinDir)

In fact, CarpetCo had recently undertaken insourcing which involved a significant investment in new machinery, seeking to reduce production costs (and arguably become more competitive and more profitable both in the Brazilian and the external market).

9.3 Summary

This chapter explored the relationship arrangements between CarpetCo and its customers, as well as the accounting techniques used by CarpetCo to measure its customers and to make decisions in relation to which customers to prioritise. The

findings in this chapter show that the use of customer accounting techniques impacted the inter-firm relationships across the entire supply chain, and ultimately resulted in promoting better employment practices. For example, CarpetCo used customer accounting techniques, including customer profitability analysis (contribution to profit) and sales revenue analysis, in order to make strategic decisions in relation of which customers to be prioritised which, in turn, informed other strategic decisions such as distribution strategy. The main customer segment (region) was prioritised in relation to product delivery (next day delivery). In order to be able to provide next day delivery, CarpetCo built a strong long-term relationship with a freight services provider (carrier). Such close relationship with the carrier facilitated information exchange at an informal level, which allowed CarpetCo to become aware of their work conditions. CarpetCo became aware that the carrier did not have forklifts and, as a reaction, the company provided trolleys to the carrier in order to improve their work conditions. Therefore, the use of Customer Accounting techniques ultimately resulted in promoting better employment practices.

CHAPTER 10: OPEN BOOK ACCOUNTING PRACTICES

ACROSS THE CASE STUDY SUPPLY CHAIN

This chapter continues this study's journey of exploring the potential of SCA as a means to promote both economic and social upgrading. In pursuit of this aim, this study explores the management accounting and control mechanisms (or SCA practices) used by a focal organisation in the textiles industry in Brazil and across its supply chain, focusing on examining how these practices impacted upon the wider economic and social context in which the organisations in the supply chain operated. This chapter examines the fourth and last SCA practice explored in this study: Open Book Accounting (OBA).

OBA is generally defined as the disclosure of management accounting information beyond organisational boundaries (Caglio, 2017; Caglio & Ditillo, 2012; Windolph & Moeller, 2012; Agndal & Nilsson, 2010; Kajuter & Kulmala, 2005). While some authors define OBA as the disclosure of costs information between buyers and suppliers (Lamming, et al., 2005; Lamming, 1996), others define OBA more widely as the exchange of both financial and non-financial information in inter-organisational settings (Caglio, 2017; Caglio & Ditillo, 2012; Windolph & Moeller, 2012; Agndal & Nilsson, 2010; Kajuter & Kulmala, 2005). This study takes the perspective of the latter. In other words, this study uses the term OBA to refer to the exchange of both financial and non-financial information across the supply chain. OBA plays a key role in SCA (Lamming, 1993; Cooper and Slagmulder, 1999; Mouritsen et al., 2001; Kulmala, 2002; Kajuter and Kulmala, 2005). Information exchange is inevitably part of every transaction (Windolph & Moeller, 2012). Therefore, OBA is embedded within all SCA techniques, and it is essential to promoting collaborative efforts between buyers and suppliers searching for joint cost reduction, process improvements and trust building. Therefore, this chapter is key for this study and, in a way, it brings the whole thesis together.

Previous empirical studies on OBA practices suggest that information exchange between buyers and suppliers is rarely a systematic and unvarying process (Windolph & Moeller, 2012; Agndal & Nilsson, 2010; Kajuter & Kulmala, 2005, 2010). The same is observed in this study. In this study the variants in OBA practices

included the type of information disclosed (e.g. financial and/or non-financial information), the extent of disclosure (e.g. data fully or partially disclosed), the frequency of information exchange (e.g. continuous or occasional), the form in which the information disclosure took place (e.g. formal and/or informal disclosure), and direction of information disclosure (e.g. one-sided or two-sided).

Given this study's aim of exploring the potential of SCA to promote both economic and social upgrading, the rules and routines in terms of OBA practices in this study were analysed by the type of information disclosed. The analysis of the OBA practices was divided into three types of information: accounting and costs information, technical and procedural information, and information about approach to managing social issues. In contrast with previous literature (Möller, Windolph, & Isbruch, 2011; Cullen & Meira, 2010), the findings in this study suggest that the extent to which firms both disclosed and required information from their buyers and suppliers varied according to the type of information exchanged rather than on the type of the inter-firm relationship.

This chapter starts by exploring the characteristics of the OBA practices between buyers and suppliers across the case study supply chain. Greater focus is given to CarpetCo's approach to OBA, the focal organisation in which an extensive case study has been conducted. In addition, four of CarpetCo's tier 1 suppliers of raw materials were interviewed as part of this study, and the approach of each of these suppliers to OBA practices with their own customers and suppliers is explored in the second section of this chapter in the context of four mini case studies. It is important to note that although five firms that form part of the same supply chain were interviewed, this study focuses on the dyadic relationships between each of the firms interviewed and their tier 1 buyers and suppliers. In other words, this study focuses on the immediate supply network of each of these firms rather than focusing on the total supply network (Seal et al., 1999). Having had obtained access to four of CarpetCo's suppliers not only provided information about the SCA practices of these firms with their own suppliers and buyers (including CarpetCo), but also provided access to the point of view of two parties in the dyadic relationship between these suppliers and CarpetCo. Such access to the point of

view of two parties in a dyadic relationship provided crucial insights for understanding the dynamics of these inter-firm relationships.

This chapter is structured as follows. The first section explores the characteristics of the OBA practices between CarpetCo and its customers and suppliers. The second section explores the OBA practices of four of CarpetCo's suppliers with their own customers and suppliers in the context of four mini case studies. The third section explores the factors that influenced the OBA practices across the case study supply chain. Subsequently, the chapter analyses the impact of these OBA practices on the economic and social environment in which the firms operate. Finally, the chapter ends with a summary.

10.1 OBA practices within CarpetCo

This section explores CarpetCo's approach to OBA practices with its buyers and suppliers. In other words, it examines the extent to which CarpetCo engaged in OBA practices and the characteristics of these practices, including the type of data disclosed, frequency and form of information exchange. Some studies suggest that the sharing of information is mostly one-sided, where a strong customer requires their suppliers to disclose information, allowing the customer to get involved in improving the supplier's costs (Windolph & Moeller, 2012; Meira et al., 2010). Although CarpetCo was the focal organisation in this case study (the manufacturer of carpets), CarpetCo was not always the most powerful player in its dyadic relationships with its suppliers. While for some suppliers CarpetCo was a significant and influential buyer, for others CarpetCo was not a buyer of a great magnitude. On the other hand, CarpetCo was generally the most powerful player in its relationship with its customers (retailers). The power asymmetries between buyers and suppliers in each of the dyadic relationships explored in this section will be highlighted where relevant. This section is divided into two subsections: the first explores CarpetCo's overall approach to OBA practices with its tier 1 suppliers, and the second explores CarpetCo's approach to OBA practices with its customers.

10.1.1 CarpetCo's approach to OBA practice with its suppliers

Various authors have argued that the extent of OBA practices depends on the type of relationship between buyers and suppliers (Möller, Windolph, & Isbruch, 2011; Cullen & Meira, 2010). For example, Cullen & Meira (2010) argue that when the relationship between the buyer and the supplier is at a mature stage firms tend to adopt sophisticated SCA techniques such as OBA. In contrast with previous literature (Möller, Windolph, & Isbruch, 2011; Cullen & Meira, 2010), the findings in this study suggest that the extent to which firms both disclosed and required information from their buyers and suppliers varied according to the type of information exchanged rather than on the type of the inter-firm relationship. For example, CarpetCo did not fully engage in OBA practices with its suppliers, irrespective of the type and/or stage of the inter-firm relationship. Möller, Windolph, & Isbruch (2011) suggested that OBA studies should differentiate between disclosure of cost data and the exchange of less sensitive information. Given this study's focus on exploring the influence of OBA practices on both the economic and social upgrading of Brazil, this study explored (e.g. through interviews structure) and analysed the OBA practices by type of data. Information exchange was divided into three types of information: accounting and costs, technical and procedural, and approach to managing social issues. The next subsections explore CarpetCo's approach to information exchange with its tier 1 suppliers by each of these three types of information.

10.1.1.1 Accounting and cost information

Previous studies on OBA show that one of the most common barriers for OBA practices across supply chains is the scepticism about sharing accounting information (Kajuter & Kulmala, 2005). For example, reporting from a case study in a Finnish manufacturing network, Kajuter & Kulmala (2005, p. 196) compiled a list of the major reasons for failure in OBA implementation and the authors found that one of the main reasons for failure was the suppliers' belief that accounting and costs information should be "kept in-house". These findings were also reflected in this case study. Within CarpetCo, financial information was generally seen as sensitive information, and openness to sharing information seemed to be lower

when information exchange involved financial data. Interviewees within CarpetCo said that they did not either disclose or required accounting and costs information from their suppliers. Moreover, interviewees seemed to feel generally awkward about the idea of sharing accounting and costs information with their suppliers. For example, the SCM said that he did not require his suppliers to disclose financial information because he would not feel “comfortable” asking the supplier to share this kind of information. The accountant also showed scepticism about exchange accounting information. In the very first interview the accountant said that CarpetCo did not and was not willing to disclose accounting and cost information to their suppliers because they did not want their suppliers to know the company’s profit. On the other hand, the industrial director said that CarpetCo did occasionally require its suppliers to disclose cost information, but this was required only in order to justify occasional price increases.

“...we want [our suppliers] to justify increases... you can't just say [that] from tomorrow [there] will be 5% increase... We don't accept this. You must come here, you must sit and you must discuss this with us. We want to know why” (CarpetCo_IndDir)

The literature usually portrays that the sharing of accounting information is mostly one-sided where, for example, a strong buyer requires their suppliers to disclose information (Windolph & Moeller, 2012; Meira et al., 2010). The findings from the interview with the industrial director suggest a type of one-sided OBA between CarpetCo and its suppliers. For example, while CarpetCo did not disclose cost information to its suppliers, CarpetCo required its suppliers to provide cost information in order to justify occasional price increases. Although information was disclosed only partially and in order to justify occasional price increase (rather than as a means of revealing opportunities for cost reduction and process improvements), such exchange of information seemed to play an important role on building trust between CarpetCo and its suppliers.

10.1.1.2 Technical and procedural information

The exchange of technical and procedural information is arguably a form of knowledge exchange. Such exchange may lead to processes improvement and, in turn, increased competitiveness for both buyers and suppliers. Therefore, exchange of technical and procedural information may promote economic upgrading in the industry. The findings in this study show that in relation to technical and procedural information, such as production processes and technical characteristics of the materials, CarpetCo was generally keen to share information with its suppliers. For example, both the SCM and the quality manager (QM) explained that it was a common practice to invite suppliers to site visits within CarpetCo's plant, in which they showed the entire production process.

In relation to requiring technical and procedural information from suppliers, CarpetCo collected a reasonable amount of information during the supplier selection phase. This was done using a form designed by CarpetCo to be filled out by suppliers, called questionnaire for supplier approval (see appendix for company documents). The information required in this form included whether the supplier held any quality certifications (e.g. ISO); whether the supplier had a system in place for production control and product traceability, and whether the supplier provided technical assistance. The form also included some questions regarding relational information, such as production capacity and delivery time; and whether the materials were transported with traceable vehicles (which arguably refers to the supplier's approach to managing social issues in relation to, for example, the drivers' safety).

10.1.1.3 Information about approach to managing social issues

The exchange of information about firms' approach to managing social issues across supply chains may arguably promote social upgrading in the environment in which the organisations in the supply chain operate. For example, such exchange may lead to better practices in terms of managing social issues due to pressures from a powerful buyer or supplier (coercive isomorphism) (Brandau et al., 2013; Tsamenyi, Cullen, & González, 2006; Moll, Burns, & Major, 2006; DiMaggio & Powell, 1983).

Also, exchange of information about firms' approach to managing social issues may lead to better social practices across the supply chain due to dissemination of best practices (mimetic isomorphism) (Brandau et al., 2013; Tsamenyi, Cullen, & González, 2006; Moll, Burns, & Major, 2006; DiMaggio & Powell, 1983). In this study, there were some instances in which CarpetCo required information related to social and environmental issues (coercive isomorphism). For example, as explained above, CarpetCo collected a reasonable amount of information about suppliers during the selection phase. One of the information requested was whether the supplier's materials were transported using traceable vehicles which, although seemingly intended for the purpose of tracing the material delivery, this could arguably have implications to supplier's approach to managing social issues in relation to, for example, the compliance with safety regulations and work conditions for the drivers. Furthermore, together with the above-mentioned questionnaire for supplier approval, CarpetCo required the suppliers under selection process to present official documents issued by different governmental agencies showing that they did not have any outstanding obligations. For example, CarpetCo required the potential suppliers to present their environmental licence for operation, and the official recognition of payment of security and environmental taxes. Additionally, CarpetCo required the potential supplier to present a letter signed by their senior executive declaring that they were in compliance with all the employment, anti-discriminatory and safety norms.

Another example of coercive isomorphism in relation to information about firms' approach to managing social issues can be observed in instances in which CarpetCo monitored the employment practices of its suppliers. For example, within the employment legislation in Brazil there was a regulation (Sumula do TST no. 331 Res. 174/2011) which determined that when a company hired a service provider firm to render services involving labour working within the premises of the hiring company (for example, cleaning and security services), the hiring company was co-responsible for the labour working within its premises. Given that CarpetCo did hire service provider firms to provide services of cleaning, security and local refectory, in these cases CarpetCo monitored the employment practices of the service providers, as explained by the HR manager below. The HR manager explained that in fact the legislation did not require the hiring firm to monitor the employment

practices of the service providers; but the regulation decreed that the hiring firm was co-responsible for the workers within the service provider, thus in this cases CarpetCo formally monitored the practices (by requesting information) as a precaution given that CarpetCo was co-responsible for the workers of the service provider.

“...every supplier that comes here that has involvement with people, providing service, I request all the information... this [information required] is not in the law, but... we are co-responsible should anything happen to their employees here... It happens in some cases with the porters. It happened once, there was a guy who didn't even work here; he didn't come to work. But he worked for a service provider firm which didn't pay his termination package, so he started a judicial claim saying that he worked for that company during a certain period and that, say, for one year he provided service for CarpetCo. But we had all the documentation that proved that he wasn't in their payroll. Therefore, he didn't... he didn't have anything registered here showing that he worked here. But if he had worked here, CarpetCo would have to pay, because the company went bankrupt, the company for which he worked went bankrupt, so when the first defendant goes bankrupt, or is not present, the responsibility is transferred for who they provided the service. So that's the reason for the requirement. I don't know, but when the client is big they usually request this kind of information... this people of the asphalt backing [machine] too, I ask for. If they will provide service in here, I ask... [suppliers of raw material] no, only for who is providing services inside [the company] ... I check if everything is OK. If everything is OK with the documentation, I archive it. This is a precaution that we take. Also, I am always careful if they don't have life insurance from the company, then I inform the manager and the person who hired the service so that they give their consent. “Look, this worker is here inside [the company] but he doesn't have a life insurance, they didn't send me the life insurance. If you consent it's on your own risk” (CarpetCo_HRM)

In other words, in these cases CarpetCo was a powerful supplier who, by monitoring the suppliers' practices, ensured that these suppliers complied with the legislation. This is arguably particularly relevant in developing countries with low enforcement, as was Brazil.

In other cases, there seemed to be some exchange of information about firms' social impact and approach to managing social issues across the supply chain at an informal level. For example, the SCM explained that his suppliers informally shared information about the benefits that the supplier offered to its employees.

“[We share HR information] only informally... when they mention maybe in a visit, something like that....” (CarpetCo_SCM)

Information about the benefits that a firm offers to its employees is arguably an important indicator of a firm's social impact. Employment benefits arguably promote improvements to the employees and their families, therefore contributing to the social upgrading of the environment in which the company operates. For example, through benefits such as health insurance, which are generally extended to family members, employees and their families gain access to health care and arguably better quality of life. Other examples of employment benefits that may contribute to the social upgrading of the environmental context in which a firm operates include training and financial support for formal education, contributing to the improved educational level of the region and availability of skilled labour.

The supply chain manager further explained that he shared information with his suppliers about the benefits that CarpetCo offered to its employees because sometimes his suppliers asked if it was good to work for CarpetCo.

“Sometimes we mention informally to those suppliers that we have more contact with. For example, sometimes there are suppliers who ask if it is good to work for CarpetCo... informally really...” (CarpetCo_SCM_Fup)

The accounting manager talked about the work conditions in the factory of one of CarpetCo suppliers, of which he became aware during a visit to the supplier's premises.

“What I hear is some informal talks, when they come [here]... in TexCo, for example, I've been there, in the factory, what I've seen that is different from here is that, for example, here we have the refectory, there the workers put their packed food next to the machinery and eat it there. This kind of thing...” (CarpetCo_Acc)

Although seemingly unintendedly, such informal exchange of information had the potential to improve work conditions across the supply chain. For example, this exchange of information allowed CarpetCo to be aware of the work conditions and/or employment practices within its customers and suppliers, promoting the monitoring of these practices to some extent. For instance, through the informal exchange of information CarpetCo became aware that its main freight service provider (carrier) did not have forklifts for moving products, putting workers' safety at risk. As a result of this, CarpetCo provided safety equipment for the freight service firm's employees.

“[Some] carriers don't have a forklift... a carrier! We made some trolleys for them to move the boxes... for ergonomics... we gave it to them. We told them that they had to have at least that...” (CarpetCo_FinDir)

Although CarpetCo did not directly monitor the employment practices of its partners, some interviewees suggested that they were at rest because they trusted that CarpetCo's suppliers and customers had good practices.

“Most of the companies that we work with... they have a very good structure... with whomever we do business, it's normally well-established companies, companies that have all the structures in place, so I don't think there is really an issue. Unless you buy from rural companies where there's lots of problems, [but] we don't do business with these kind of companies” (CarpetCo_IndDir)

However, it seemed that this concern about their partners' employment practices was limited to their tier 1 suppliers. For example, the SCM revealed that sometimes there were freight providers (carriers) who were hired directly by CarpetCo's customers. In other words, in some cases the customer would contract a carrier to collect the products at CarpetCo's plant instead of having the product delivered by CarpetCo (or by a carrier contracted by CarpetCo). In these cases, according to the SCM, CarpetCo did not take any actions even if they became aware of bad practices.

“...the companies that we work with are very serious... maybe a freight provider comes to pick up a carpet to take it to someone... and their son is helping, or they bring a helper who is a minor. But this is something that we cannot control... it's not something permanent. But our own suppliers, both of materials and of transport...I know for sure that they don't have any kind of child labour, nothing”
(CarpetCo_SCM)

In summary, there was some exchange of information about managing social issues between CarpetCo and its tier 1 suppliers, but in general this practice was limited to partial and occasional disclosure of information. In relation the other firms across the supply chain (e.g. tier 2 suppliers, providers of service to CarpetCo's customers), CarpetCo did not exchange and at times overlooked this kind of information.

10.1.2 CarpetCo's approach to OBA practice with its customers

This subsection explores CarpetCo's approach to OBA practices with its tier 1 customers. Previous studies suggest that information exchange tend to occur when there is a strong player in the supply chain who requires its buyers and/or suppliers to disclose information (Windolph & Moeller, 2012; Meira et al., 2010). In this study, although CarpetCo was the most powerful player in its relationship with its customers (retailers), CarpetCo did not require full disclosure of information from its customers. The extent to which CarpetCo both required and disclosed information with its customers varied according to the type of information. The next subsections explore CarpetCo's approach to information exchange with its

customers by each of the following three types of information: accounting and costs, technical and procedural, and approach to managing social issues. It is important to note that, given that CarpetCo's customers were not interviewed as part of this study, the OBA practices between CarpetCo and its customers is taken from CarpetCo's perspective.

10.1.2.1 Accounting and cost information

In general, interviewees within CarpetCo seemed reluctant about sharing accounting and costs information with their customers. For example, as explained in the previous section, the accountant said that CarpetCo did not share and was not willing to share accounting and cost information with its suppliers. In the same interview she said that they were willing "even less" to share accounting information with their customers.

On the other hand, the industrial director said that CarpetCo had the practice of occasionally disclosing cost information to its customers in order to justify occasional price increases, in the same way that CarpetCo required its suppliers to do.

"...we want [our suppliers] to justify increases... Because we do the same [with our customers]" (CarpetCo_IndDir)

10.1.2.2 Technical and procedural information

In relation to technical and procedural information, CarpetCo shared detailed information with its customers because, as suggested by the finance director, CarpetCo wanted its customers (retailers) to understand all the technical aspects of the products that they sold.

"...we are bringing the retailers from Rio de Janeiro. They will arrive on Saturday, Saturday night we will go for pizza, on Sunday we will have a barbecue all day long, and on Monday morning they will come

here to learn about what they are selling. They will have a lecture on Carpets, have lunch and leave” (CarpetCo_FinDir)

Such exchange of information can be explained by the notion of knowledge transfer from Multinational Enterprises (MNEs) to local firms in developing economies, as defined by Zaheer Khan et al. (2015). The authors argue that knowledge transfer may occur through formal and/or informal mechanisms. The findings in this case study suggest that knowledge transfer from CarpetCo (an MNE operating in a developing country) to its (local) customers used both formal mechanisms (e.g. schedule visits to the plant; technical training - “lecture on carpets”) and informal socialisation mechanisms (e.g. dinner; day activities; gathering families). Socialisation mechanisms in this context refer to “mechanisms which build interpersonal familiarity, personal affinity, and convergence in cognitive maps among personnel from different subsidiaries” (Gupta and Govindarajan, 2000, p.479). Therefore, contributing to the economic and social upgrading of Brazil (the knowledge exchange arguably contributed to increasing skilled labour).

10.1.2.3 Information about approach to managing social issues

In relation to partners’ approach to managing social issues, there was exchange of information at informal level. For example, as explained in the previous section, CarpetCo exchanged information both with suppliers and with its customers about the benefits that the company provided to its employees.

“[We share information] only informally... when they mention maybe in a visit, something like that.... it’s the same with our customers, when they come here and they mention like, we have private health insurance, dental care, we have a refectory, a restaurant...”
(CarpetCo_SCM)

As argued in the previous section, the informal exchange of information had the potential to promote better practices across the supply chain. For example, the disclosure of information advanced CarpetCo’s awareness of the employment practices within its customers and suppliers, facilitating the monitoring of practices

across the supply chain. On the other hand, it seemed that sometimes CarpetCo was aware of bad practices and did nothing about it. For example, the finance director explained that one of their clients (retailer) did not have forklifts to move the products around the store. Although she was well aware of the dangers to which their customer's employees were exposed, she revealed that CarpetCo did nothing about it.

“Have you seen how a carpet roll is? I have clients today that don't have a forklift to move things. I have clients in Rio de Janeiro, for example, in a hangar they put a line with a type of sheave, then the guy climbs on the rolls, it's like this full of carpet rolls, he gets that thing, comes, brings it till here, puts it in one side of the tube, the other one he puts on the other side of the tube, and pretty soon they drag it until...I was watching and said: “my goodness, if that breaks and falls on this guy's foot he will never walk again”. Also, that hook, the effort the guy is putting. Two people for one carpet roll. And then it arrives at the client's house, in the office, he has to bring that down. It doesn't go by lift; it has to go through the stairs. So you can imagine...so it's stuff like that...they don't have a space to open this, cut the cloths the size they have to be, fold it nicely and take it.”

(CarpetCo_FinDir)

In summary, there was some exchange of information between CarpetCo and its customers, but this was occasional and varied according to the type of information disclosed. Table 10.1 summarises the OBA practices between CarpetCo and its buyers and suppliers discussed throughout this section.

	Accounting and cost information	Technical and procedural information	Information about approach to managing social issues
Type of information disclosed	Costs items to be disclosed were specified case by case	Quality certifications held by the buyer (e.g. ISO)	Work conditions, employment practices
Stages in the relationship in which information is disclosed	Existing relationships during renegotiation of prices	Supplier selection and throughout the relationship	Existing relationships
Form of disclosure	Formal disclosure using suppliers' own format	Formal disclosure using buyer's format	Informal disclosure through daily business communications, meetings and site visits
Direction of disclosure	One-sided disclosure from supplier to buyer	- One-sided disclosure from supplier to buyer during supplier selection - Two-sided exchange of information about technical details and procedures throughout the relationship	Two-sided
Purpose of disclosure (for the buyer)	- Supplier selection (for non-critical materials) - Price (re)negotiations - Ensure suppliers' profit margin (e.g. CarpetCo wanted suppliers to thrive)	Supplier selection	Ensure future contracts "Precaution" due to co-responsibility
Benefit of disclosure (for the supplier)	- Ensure future contracts - Ensure profit margin	Ensure future contracts	Ensure future contracts
Suppliers' behaviour towards data disclosure	- Small suppliers often accepted - Some larger suppliers refused, reflecting power asymmetries (e.g. YarnsCoEU) - Some suppliers used globally traded commodities of which costs were well known to the buyer (e.g. Calcite and Latex)	No apparent reluctance	No apparent reluctance

Table 10.1: OBA practices within CarpetCo

10.2 OBA practices in four suppliers (four mini case studies)

As explained above, four of CarpetCo's tier 1 suppliers of raw materials were interviewed as part of this research. This section explores the overall approach to OBA practices of each of these four suppliers with their own buyers and suppliers.

10.2.1 Mini case study 1: BackCoJC

BackCoJC was one of CarpetCo's supplier of secondary backing materials, which were the materials that formed the back of the carpets. BackCoJC was a Brazilian family business based in the same region in which CarpetCo operated. As explained in chapter 6, in terms of installation CarpetCo divided their product lines into tufted carpets (sold in rolls) and modular carpets (sold in tiles), and for tufted carpets there were two different backing materials: primary and secondary backings. BackCoJC supplied secondary backing materials to CarpetCo. For these materials CarpetCo had three active suppliers, one based abroad (BackCoEU), and two based in Brazil (BackCoBR and BackCoJC).

Two participants within BackCoJC were interviewed, and the interviews lasted approximately one hour each. The interviewees were the sales manager (SM) and the HR manager. This mini case study provided valuable insights about the dynamics of inter-firm relationships across supply chains in textiles industry in Brazil.

BackCoJC operated in the textiles industry, manufacturing mainly sacks of raffia (commercially named as "big bags"). BackCoJC also sold technical fabrics used for the production of packaging, and threads used for the production of carpets and rugs. The distribution of the company's turnover by product line according to information given by the SM is shown in the table below.

Product line	% Sales
Big Bags (raffia sacking)	70%
Technical fabrics for packaging	23%
Threads for carpets and rugs	7%

Table 10.2: Sales distribution BackCoJC (Source: author)

CarpetCo was one of BackCoJC's biggest customers of threads for carpets, representing around 22% of total sales within this segment, as explained by the SM. However, as shown in the table above, threads for carpets and rugs represented only 7% of BackCoJC's business. Therefore, it can be calculated that CarpetCo represented around 2% of BackCoJC's business.

The SM said that BackCoJC's main competitors were BackCoBR and the imported material. In other words, besides BackCoBR, their competitors were all from abroad. BackCoBR was a national firm operating in the same segment as BackCoJC, who also supplied the same backing material to CarpetCo. As explained in chapter 7, CarpetCo bought the same material from two different suppliers in order to keep two active suppliers and reduce uncertainty.

10.2.1.1 Accounting and cost information

In general, BackCoJC did not disclose accounting and costs information either to its customers or to its suppliers.

“We don't [share cost information with customers], but there is no secret because everyone knows it comes from PPBR and their price is fixed” (BackCoJC_SM)

BackCoJC did not request accounting and costs information from their customers and suppliers either.

“They [PPBR] are the only ones [who supply polypropylene in Brazil]. They have two arguments to build their price on: the dollar [exchange rate] and the price of the raw material abroad. So, if the global price of the raw material is high and the dollar [exchange rate] is high, imports are discouraged. There is no other option. And bear in mind that we are a large buyer - the company group as a whole. But even so, there is no [negotiation]...” (BackCoJC_SM)

10.2.1.2 Technical and procedural information

In general, BackCoJC exchanged information about production process both with its customers and its suppliers, mainly during factory visits. According to the SM, exchange of this type of information was two-sided both with their customers and with their suppliers.

“I have a customer in Sao Paulo, for example, who implemented, about four years ago, the Kanban system. I thought that their system was fantastic. I talked to my director back then about this. We conducted a study at the time, and we did not copy [the customer’s system], but we were inspired by it. So this is common”
(BackCoJC_SM)

“The interaction with my customers is high - with the customers who enter the factory. We end up influencing them on some things”
(BackCoJC_SM)

10.2.1.3 Information about approach to managing social issues

BackCoJC did not have a formal policy for requesting suppliers to disclose information about their partners’ approach to managing social issues. However, the SM admitted that, although they did not monitor these practices, it would be a good practice if they did.

“We should, but we don’t monitor this. Of course that, for example, if I contract a new supplier I need to visit them; and if they don’t have [a good] structure, if they work under inhumane conditions, with no illumination, this or that, we start questioning it. But this is only just starting. And at the end of the day what matters is the price. And results, of course. The supplier must have at least the ISO certification, but the ISO doesn’t mean that they have the best system of world. The ISO only guarantees that they apply the process that they developed... But anyway, if the product delivers and the price is

reasonable, we end up buying” (BackCoJC_SM)

On the other hand, some of BackCoJC customers had recently started requesting them to share information about their approach to managing social issues across the supply chain.

“Sometimes we do [share information about social practices], when the customers ask for it. Some companies now have certain social responsibility and environmental certifications. So they end up asking [for information], and we pass them on” (BackCoJC_SM)

“I have noticed that our customers are starting to [require disclosure of information about approach to managing social issues]. For example [client name] requires this from the entire supply chain, so we need to pass this on to our own suppliers. But this is very new. There should be more of this, I think that most companies should be concerned with that” (BackCoJC_SM)

Moreover, according to the sales manager some of BackCoJC customers had recently started to share information about their own social practices, which had the potential to disseminate best practices across the supply chain.

“Indirectly they do [share information about their social practices]. This is because I am always with them and I have access to their installations. So I end up seeing some things which inspire us” (BackCoJC_SM)

10.2.2 Mini case study 2: YarnsCoEU

As explained in chapter 6, YarnsCoEU was one of CarpetCo’s main suppliers given that they supplied critical materials to CarpetCo (yarns and fibre). YarnsCoEU was based in Europe and had family links in terms of ownership (as explained in chapter 6). The sales manager (SM) within YarnsCoEU gave one interview which lasted approximately 3 hours, in which he provided important insights in relation to the

inter-firm relationship dynamics between his firm and its customers (including CarpetCo).

The SM at YarnsCoEU said that he did not share cost information with his customers (including CarpetCo). He explained that one of the reasons why he avoided sharing costs was because YarnsCoEU had relatively high labour costs compared to companies that were based in other countries.

“I try not to [share cost information with my customers]. Firstly I don’t see the reason why I would. I don’t want the customer to make calculations. We’re in EuroCountry1, not the cheapest labour in the world. We lost [market] to Turkey purely for labour cost. [But] we are the Rolls Royce of yarns. Some customers told me that their machinery run 15% faster with our yarns, so you can be faster and your cost gets lower. And they can use less yarns in the carpet; if you have a good yarn you can use less. We treat our machines right, with good maintenance, so we have good quality” (YarnsCoEU_SM)

YarnsCoEU’s SM further explained that his customers did not share cost information with him either. He added that most of his customers were carpet manufacturers and, given that YarnsCoEU and CarpetCo had family links in terms of ownership (YarnsCoEU was part of DutexCorp) and some of the firms from within DutexCorp also were carpet manufacturers, his customers were concerned about sharing costs and accounting information with YarnsCoEU. In other words, they did not want to share information with a supplier that had family links with their competitors.

“The main shareholder of DutexCorp was from (company name), so he used to be a competitor of YarnsCoEU, because one of (company name) plants is of yarns. We have divided the market by countries so we don’t compete anymore like we did 10 years ago... We [YarnsCoEU] are independent yarn manufacturers. At the beginning my customers were nervous because we are from the DutexCorp group, and DutexCorp group also produces carpet, so the group compete with my customers. So I learned not to ask questions. They know I sell to competition, and I don’t

want to make them nervous...being a potential competitor in the past they don't want to give information. I avoid [asking] by choice and I know they like that. They don't want to say" (YarnsCoEU_SM)

One possible explanation for such reluctance for sharing accounting and costs information may be economic trend for the product market, as defined by Caglio (2017). In the same interview the SM at YarnsCoEU said that the carpets market was facing a downturn globally. Caglio (2017, p.7) suggested that in times of recession, both in the country and/or in the market in which the company operates, behavioural uncertainty may increase.

The sales manager at YarnsCoEU also showed reluctance in relation to sharing technical and procedural information. He revealed that there were some technical details about his production process that he did not want to share with his customers (including CarpetCo). The manager explained that the type of technical information that he did not want to share was related to adaptations that YarnsCoEU had done in their machinery. In other words, YarnsCoEU purchased the machinery that was used for the production of yarns from an external supplier, and then YarnsCoEU made some modifications in this machinery in-house.

"We have machinery that we don't show anyone. We have machinery that we made in-house adaptations. Year after year we come up with new developments. In Brazil there's a lot of cheap machinery; I don't have much competition in Brazil, my competition in Brazil is mainly from the US. On the product side, I share whatever they [customers] want to know, all the details - the technical details - like thickness, fillets... In the production process, not everything. We used to take people to the factory and they started taking pictures... the new management doesn't want to show [the factory]. I walk with the clients [in the factory] where I want to walk. They don't need to know everything. We don't have anything to hide, except for a few things – we have to think of our future and protect ourselves" (YarnsCoEU_SM)

Such reluctance in sharing technical and procedural information could also possibly be explained by Caglio's (2017) hypothesis of increased uncertainty during unfavourable economic trend for the product market, as explained above.

10.2.3 Mini case study 3: LatexCo

As explained in chapter 6, LatexCo was based in Brazil and supplied latex, which was a non-critical material to CarpetCo. The Business director at LatexCo explained that he did not ask his suppliers to disclose cost information. However, the main raw materials used by LatexCo were commodities traded globally at global market prices (e.g. chemical products derived from petroleum); therefore, LatexCo had access to publicly available information on the global prices of these commodities, as explained by the Business director below.

“We don't go into details of costs with any supplier. But we are always monitoring the costs of the main raw materials. First because they are essential for our operations, I cannot run out [of these materials]. If I don't have butadiene, the factory stops. If I don't have styrene, the factory stops. If I don't have PP (polypropylene), the factory stops. I can't slip with them... Given that they are commodities, the market is international. There are various sources of public information, like the CMI, the IHS. You need to buy access, to have access to the reports, but they are public entities, they are publicly available information, you buy the report and you have access to the information. So the market is driven by these sources. So I know what's happening. For example, all these materials that I mentioned, they come from the petroleum. So we monitor not only the final material, but our internal intelligence looks at the previous too, in order to see what is happening at the previous [stage] and why. For example, petroleum is down, but the [price of] polypropylene is increasing. How can you explain that? ...we don't [ask the supplier to explain], we have an internal intelligence that chases that. With this source of information, they analyse everything in order to understand what is happening” (LatexCo_BusDir)

As for LatexCo's customers (including CarpetCo), the business director explained that LatexCo disclosed cost information in order to justify price increases. In the same way as CarpetCo and CalciteCo, the cost information disclosed by LatexCo was partial, limited to the costs of the raw materials which, in the case of LatexCo, were commodities traded globally with publicly available prices as explained below.

“...if you are going to plea a price increase, you need to be very well justified. For example, I take the cost curve that comes from ICIS, CMAI and HIS. These are international sources of data, so we use these references. In fact, we buy these raw materials with the indexed prices, either to one of these indexes or to a combination of them. We have customers that are indexed to the same format too, and some that are not. There are prices that are spot, which are market prices” (LatexCo_BusDir).

10.2.4 Mini case study 4: CalciteCo

As explained in chapter 6, CalciteCo was based in the same region where CarpetCo operated, and they supplied calcite which was a non-critical material to CarpetCo. The CEO at CalciteCo said that he only disclosed cost information with his customers (including CarpetCo) when he needed to explain eventual price increases, as explained below. The CEO further explained that such occasional disclosure of cost information was merely to inform his customers of the reason for the price increase. In other words, the information disclosure was not intended for joint discussions, but simply for justification.

“We avoid [sharing information], especially costs. Right now, at this moment, we are transferring the increase in energy [to sales price], which was 26%. And we pass only the cost of energy. We are informing, actually, that this increase is just related to the energy that is being transferred” (CalciteCo_CEO)

CalciteCo seemed to have a rather transactional relationship (as defined by Agndal and Nilsson, 2010) not only with CarpetCo but with all of its customers. The CEO

explained that he chose to have many small customers rather than having a few customers who represented a large part of his business because in this way he would not be “in the hands” of any customers.

“...our sales strategy was to avoid big customers, because if a big customer leaves you, they break you. So we prefer to diversify [our customer base]. There are many customers, all small... [The relationship is] the same with all [customers]. They are all dealt with in the same way. Same price... it's not because it's a small customer that we will charge more. We have a rule of keeping a level in the market, because if the small ones pay too much, they won't compete with the big ones, and the big ones will break the small ones. So we try to keep it at a level for everyone to survive in this market... There isn't [a different relationship depending on the customer]. It doesn't matter if they take 300 tons or 30 tons, they will pay the same price, because otherwise the one that takes 300 breaks 20 out of 30, then he will be alone in the market and I will be in their hands” (CalciteCo_CEO).

10.3 Factors that shaped the OBA practices across the supply chain

This section explores the factors that shaped the OBA practices across the case study supply chain. In other words, it investigates the reasons why firms shared (or did not share) information, and the factors that influenced the scope of information exchange across the supply chain. In line with previous literature (Caglio, 2017; Kajuter & Kulmala, 2005), the factors that shaped the OBA practices across the supply chain in this study included environmental (external) factors (e.g. related to the country and industry in which the companies operated), inter-organisational factors (inter-firm relationship dynamics and supply chain related factors) and internal factors (intra-firm dynamics, including institutions at both organisational and individual level). Each of these factors will be examined in the next sub-sections.

10.3.1 Internal factors (intra-organisational)

Internal factors that shape the institutionalisation of routines within organisations involve institutions both at the individual level, such as the individual actors' taken-for-granted assumptions (ter Bogt & Scapens, 2014); and at the organisational level, such as the internalised practices and the organisational discourses (Dambrin, Lambert, & Sponem, 2007). Accordingly, the internal factors that impacted upon the OBA practices observed in this study's supply chain included institutions both at individual and at organisational level, which are explored in the next sub-sections.

10.3.1.1 Individual actors' beliefs: perceived lack of purpose

Previous empirical studies on OBA practices suggest that one of reasons for failure in the implementation of OBA may be the individuals' perception of lack of purpose in sharing accounting information with their buyers and/or suppliers (Kajuter & Kulmala, 2005). This argument may help to explain what appeared to be the case in this study's findings. It seemed that of the reasons why CarpetCo did not share accounting and costs information with its customer and suppliers was because they did not see any reason for this practice. For example, when the supply chain manager was asked whether he shared accounting and costs information with his suppliers, it seemed that he did not see any purpose for doing so.

"I don't think that [sharing cost information] is important"
(CarpetCo_SCM)

Similarly, when the external trade manager was asked about the impediments for sharing accounting and costs information with customers and suppliers, it seemed that she did not see any purpose for doing so either.

"I don't think there is a difficulty [for sharing information with customers and suppliers]. There is simply no interest. No opportunity for asking for it" (CarpetCo_Comex)

Although these findings could support the claim by Kajuter & Kulmala (2005), there were some differences apparent in this study. Firstly, this case study did not engage in or observe a project of OBA implementation, but rather explored the institutions that shape (or had shaped) the existing rules and routines in terms of OBA practices. What is more, Kajuter & Kulmala (2005) argue that the perceived lack of purpose of engaging with OBA practices is an endogenous firm-specific factor. The evidence in this study suggest that the perceived lack of purpose for sharing information may not only be an endogenous factor but also exogenous environmental factors. For example, the accountants within CarpetCo seemed to believe that disclosing accounting and cost information was not a common practice in Brazil in general, not only within CarpetCo. The accounting manager suggested that CarpetCo's suppliers would not be willing to share information, and he expressed disbelief that this practice could work in the Brazilian context.

“... here in Brazil if you ask a supplier: ‘open your costs’ [laughter]. I don’t know...” (CarpetCo_Acc)

From an institutional perspective, it seemed that the idea of sharing accounting and cost information challenged the taken-for-granted assumptions of the individual actors within the organisation. In other words, OBA practice was not internalised (Dambrin, Lambert, & Sponem, 2007) within CarpetCo.

10.3.1.2 Accounting and costing systems

Previous studies on OBA practices suggest that the implementation of OBA requires sound cost accounting systems and reliable cost data (Caglio, 2017; Kajuter & Kulmala, 2005; Seal et al., 1999). Caglio (2017) argues that a certain level of sophistication of the internal management accounting information flows is essential (a prerequisite) for the implementation of OBA practices. Seal et al. (1999) argued that commonly understood management accounting systems play an important role in developing strong inter-firm relationships. Seal et al. (1999) suggested that accounting practices such as ABC and Balanced Scorecard have the same philosophy. Simply defining, ABC offers a better understanding of costs and cost drivers (Seal et al., 1999). Balanced Scorecard offers a better understanding of

financial and non-financial performance (Seal et al., 1999). Thus, they both offer solutions to cost management and reveal the benefits of the inter-firm relationships.

The suggestions in these previous studies (Caglio, 2017; Kajuter & Kulmala, 2005; Seal et al., 1999) may help to explain the shape of the OBA practices in this case study. CarpetCo seemed to lack a sophisticated accounting system. For example, the accounting manager admitted that they had only recently started to compute accounting figures such as EBITDA (Earnings Before Interest, Tax, Depreciation and Amortization), and indicators such as stock turnover ratio, receivables settlement period and working capital. The accounting manager explained that the practice of calculating these indicators had been implemented within the past three years prior to the interview, and that this was an initiative from the headquarters. He explained that there was a new manager at the headquarters who was, in his words, “friends with the owner” and who had started to implement several management controls across the entire group (not only in the Brazilian affiliate). The accounting manager said that CarpetCo was also seeking to implement the computation of payables settlement period as part of the same project, however this was still a work in progress because CarpetCo previously had the practice of recording all payables in the same ledger account, therefore they did not know the amount owing to suppliers of raw material alone. In other words, the current accounting system did not differentiate between accounts payable to suppliers of raw materials and accounts payable to other suppliers and/or service providers.

“Everything is mixed in the payables account in our books. We don’t have, for example, one separate account for suppliers of raw material and another for miscellaneous suppliers. We are still adapting to these are things” (CarpetCo_Acc)

Arguably, another indication of the lack of sophistication of CarpetCo’s accounting systems was the lack of use of a Balanced Scorecard. When the accounting manager was asked whether CarpetCo used Balanced Scorecard system, he admitted that although he was aware of, he was not familiar with the practice.

“First of all, I don’t quite know what this [Balanced Scorecard] is”
(CarpetCo_AccM_Fup)

When the finance director was asked whether CarpetCo used Balanced Scorecard system, she said that although they did not have a system, she would like to see it implemented in the near future. However, she said that she did not want to get involved with the implementation process. Research shows that the lack of alignment between managers and employees’ objectives is one of the main reasons for failure in implementation of Balanced Scorecard systems (Fernandes, Raja, & Whalley, 2006; Nørreklit, 2000). Therefore, the finance manager’s response suggests that she too was unfamiliar with the practice.

“We don’t [use Balanced Scorecard] yet. But I would like to. I don’t know why we still don’t [use it]. But we have recently changed some systems... I want us to start going into this direction... it is more professional... it is something interesting. But I don’t want to get involved. I just want to see it done” (CarpetCo_FinDir)

Moreover, she admitted that she wanted to see a Balanced Scorecard system implemented within CarpetCo just for show. These findings suggest that she wanted to see the practice implemented with the sole purposes of achieving legitimacy (or appear professional) (Dambrin, Lambert, & Sponem, 2007; Scapens, 2006).

“[I would like to implement BSC] just for showing to the auditors... I find it very interesting, but we do not have it. It really does leave a little bit of frustration not to [have BSC], but... But I believe that within a year - because we installed this new programme now, and it is a very important tool, it will have BI and such. So within a year I think we will be a lot better already... we're heading this way. But we still consider ourselves ... as we are talking about a group of more than 70 years and we are 15 years old, so we still have the right to... but we are moving towards this more technical part, for sure” (CarpetCo_FinDir)

In terms of costing systems, CarpetCo used the absorption method for allocating overhead costs. The accounting manager said that they had contemplated to implement ABC in the past, but it had been concluded that it would not work, signalling lack of reliable cost data.

“I know it [ABC], but we don’t use it. We use the absorption cost method... ABC we even... we contemplated it here once, but at the very beginning” (CarpetCo_Acc)

Previous studies show that difficulties in the implementation of OBA may be related to the weakness of both firms’ internal cost systems. For example, Seal et al. (1999) conducted an action research project seeking to building closer ties between a manufacturer and one of its supplier, and they found that one of the difficulties for the implementation of OBA between the two firms was the weakness in both firms’ internal cost systems. Some of CarpetCo’s buyers and suppliers were small or medium sized firm (e.g. BackCoJC, CalciteCo), and these suppliers were likely to use less sophisticated accounting systems as well.

Possible explanations for CarpetCo’s lack of a sophisticated accounting system may be related to external factors, including the firm’s industry and country of operation. Previous studies on OBA practice have so far focused on industry sectors which are more likely to adopt new accounting methods and implement sophisticated cost accounting systems, such as the automotive industry (Windolph & Moeller, 2012; Möller, Windolph, & Isbruch, 2011; Agndal & Nilsson, 2010; Kajuter & Kulmala, 2005; Cooper & Slagmulder, 2004), the information technology and telecommunications industry (Agndal & Nilsson, 2010; Dekker, 2008; Mouritsen, Hansen, & Hansen, 2001), and the mechanical engineering industry (Kajuter & Kulmala, 2005; Mouritsen, Hansen, & Hansen, 2001; Seal et al., 1999). Furthermore, empirical studies on OBA practice so far have largely focused in developed countries, such as Japan (Cooper & Slagmulder, 2004), the UK (Seal et al., 1999), and northern European countries such as Germany (Windolph & Moeller, 2012; Möller, Windolph, & Isbruch, 2011; Kajuter & Kulmala, 2005), Denmark (Mouritsen, Hansen, & Hansen, 2001), Sweden (Agndal & Nilsson, 2010), and Finland (Kajuter & Kulmala, 2005).

Another possible explanation for CarpetCo's lack of sophistication in its cost accounting systems is the firm size. Although CarpetCo was part of a large corporate group, the Brazilian affiliate was a medium sized firm. The reasoning being that large companies tend to use cost accounting systems that are more advanced than those of small companies, and that larger companies tend to be more willing to adopt new accounting techniques, given their greater ability to commit resources on their management accounting and control systems (Kajuter & Kulmala, 2005).

10.3.1.3 Intra-organisational dynamics and the role of the accountants

Surprisingly, while the middle management (e.g. accountants and the supply chain manager) said that CarpetCo did not share accounting information with their buyers or suppliers, the industrial director suggested that CarpetCo occasionally required its suppliers to partially disclose cost information in order to justify occasional price increases. One possible reason for this controversy could be that such occasional and partial exchange of costs and accounting information between CarpetCo and its suppliers occurred only at higher hierarchical levels, given that the use of this practice was suggested by the industrial director (senior management), whereas the accountants and the supply chain manager (middle management) affirmed that they did not disclose or require accounting information.

One possible explanation for this is the limited role of accountants within CarpetCo and, arguably, in Brazil in general. The accounting manager role in the management control system seem to be limited to computing the figures and reporting them to the headquarters. He admitted that he did not know exactly how the senior management used the information that he provided to them. The manager said that the new management control system had been implemented across the entire group in search for standardisation, and he believed that these figures were used to compare the Brazilian affiliate with other affiliates across the group. However, he did not know whether these indicators were used to compare the firm's performance with, for example, industry benchmarks.

“They have the company on their hands. I participate up to a certain point. But I imagine that it is well-managed” (CarpetCo_Acc)

Another possible explanation may be related to the notion of “ambiguous coexisting ideals” (Dambrin, Lambert, & Sponem, 2007, p. 174). Dambrin, Lambert, & Sponem (2007) argue that ambiguous coexisting ideals form part of the process of institutionalisation of rules and routines. In this case study, it seemed that the idea of sharing cost information was perceived as weird, but the idea of sharing cost information when it comes to justifying occasional price increases was seen as normal. The broadening of the role of accountants (e.g. with a more frequent involvement with purchasing and development teams) could arguably create a wider scope for institutionalising SCA practices such as OBA.

10.3.2 Inter-organisational factors (inter-firm relationship dynamics)

Inter-organisational factors that impacted upon the OBA practices observed in this case study involved inter-firm relationships factors such as criticality of the material involved in the transaction (Agndal & Nilsson, 2010), the levels of uncertainty involved in the relationship (Dekker, Sakaguchi, & Kawai, 2013; Agndal & Nilsson, 2010; Dekker, 2008; Kajuter & Kulmala, 2005), and previous partner experience (Xie, Liang, & Zhou, 2016; Dekker, 2008; Buskens, Batenburg, & Weesie, 2003). For example, Kajuter & Kulmala (2005) show that one of the main reasons for failure of OBA practice is the lack of trust and/or fear of opportunistic behaviour (behavioural uncertainty). In common with these findings, within CarpetCo one of the reasons for not disclosing costs and accounting information with suppliers appeared to be the fear that the information disclosed would put the company at disadvantage when negotiating price of materials with suppliers. For example, the accountant said that CarpetCo did not share accounting and cost information with their suppliers because they did not want their suppliers to know the company’s profit. The SCM suggested that if his suppliers knew their profit, the suppliers would want to increase the price of the materials.

“I don’t think it’s important. I think that it could even cause some kind of problem” (CarpetCo_SCM)

In the second phase of interviews, whilst describing the changes in the inter-firm relationships across CarpetCo’s supply chain between the first and the second

round of interviews, the accountant said that CarpetCo had not changed their view on OBA practice.

“...we remain closed. We remain in our cocoon. We remain keeping [accounting] information just for ourselves” (CarpetCo_Acc_Fup)

Conversely, while the SCM wanted to avoid encouraging his suppliers to increase their prices, he also wanted to avoid pushing them into decreasing their prices too much. More specifically, he did not require his suppliers to disclose cost information because he wanted to avoid a fight for prices between his suppliers (what he called “auctions”). He explained that the prices charged by his suppliers were very similar, and that he would rather ensure that his suppliers “thrived” (taking a longer-term perspective). In this way he could keep more than one supplier active. Therefore, this practice seemed to be related to levels of uncertainty (Dekker, Sakaguchi, & Kawai, 2013; Agndal & Nilsson, 2010; Dekker, 2008; Kajuter & Kulmala, 2005), given that the SCM wanted to keep more than one supplier active in order to reduce uncertainty in relation to alternative suppliers.

“I don’t ask my suppliers [for cost information] because... there are suppliers that have practically the same price, it’s the same product... They probably buy for the same price, and all. So I have to choose between them. So sometimes one is one cent cheaper, the other one is 2 cents, so I keep buying from both of them to keep two suppliers active. But I never make “auctions”. I don’t ask the supplier to lower their price up to the point where they won’t make any profit, because they need to prosper, they need to thrive... Then maybe once they thrive they might later have a better margin and pass it on to me as a discount. That’s why I don’t ask, I don’t make bids...” (CarpetCo_SCM)

From an institutional perspective, it seems that the main focus of attention (Dambrin, Lambert, & Sponem, 2007) of the SCM was to ensure availability of material, and this was encoded into routines such as keeping high levels of stock and keeping more than one supplier active for the materials. The existing routines institutionalised their taken-for-granted assumptions about the nature of their job,

and these routines and institutions shaped their view on SCA. For example, they did not see the purpose of sharing information with buyers and suppliers. OBA seeks cost reduction opportunities, and cost reduction was not the main focus of the SCM. In other words, the SCM had a production-oriented view, and SCA was not institutionalised in his department.

The SCM echoed this same point in the second phase of interviews. On this occasion he mentioned that his supplier of latex (LatexCo) shared costs of raw materials (which were commodities traded globally with publicly available prices), but the supplier did not break down its other costs, and the SCM supported this practice by his supplier.

“...I have a supplier, of latex, who opens [his costs]. He informs [me about] the cost of butadiene, the costs of styrene, [and] the cost of production. Because the butadiene and the styrene are indexed in the global market, so it’s a global price. And his cost of production includes everything, since the use of his plant, labour, transport, everything that is within this process within that cost... profit... that’s the point, because from the moment that I know how much I can bargain with the supplier, it becomes an auction. I could say: ‘if you don’t lower your price I’ll buy from someone else’... I think this is a strategy of the company. For your company to survive it needs to have this secret” (CarpetCo_SCM_Fup)

As for sharing accounting and costs information with customers, the SCM suggested that it was not “feasible” because the costs varied for every purchase of materials. He said that the cost variations would only impact on CarpetCo’s returns (profit), but it would not impact on the price to the customers, so he believed that this information was useful only for CarpetCo.

“...it’s not even fixed, you know? There are, say, for every purchase of material, for every receiving, because it’s... because there is the dollar variation, the euro variation, the import duties, the cost of... sea freight varies for each order. So for you to be able to say to say: it’s this much. In 15 days it’s not that much anymore... it changes. So, what will be

varying is my... my return which will... in the end it will be either bigger or smaller according to what is happening. But that is a... our own management..." (CarpetCo_SCM)

However, it is important to note that CarpetCo used the cost-plus pricing method to determine sales prices, and prices were revised every six months (as explained in chapter 9). Therefore, although the monthly variation in costs did not have an immediate impact for customers, they did affect customers in the long run. Therefore, justification given by the SCM seemed to be associated to the lack of perceived purpose of OBA.

Interestingly, another reason for not practicing OBA was the demonstration of trust, or the partners' reputation. For example, some interviewees suggested that, although CarpetCo did not directly monitor the social impact of its customers, they were at rest because they trusted that their customers had good practices (in the same way that they did with their suppliers).

"Look, honestly we don't [take into account HR practices for selecting customers]. We don't get there... We say no, but of course we take into account because the ones who have a bad behaviour in terms of HR, they pay their debts badly, it's a matter of sustainability, it's all connected, you know? So... rascals are always the same ones, aren't they? The lad who doesn't pay their employees won't pay their suppliers. They probably don't pay their supplier first, and then don't pay the employee. So if they don't pay, we don't sell to them. If they don't pay, if there's anything overdue, we don't invoice them" (CarpetCo_SD)

Therefore, while lack of trust may be an impediment for OBA because of fear of opportunism behaviour, the presence of trust may also be an impediment for OBA due the perceived lack of need for coordinating behaviour.

10.3.3 Environmental factors (External environment)

10.3.3.1 Market pressures

Market pressures seemed to be one of the factors that shaped OBA practices across the supply chain. One possible explanation for the reluctance in sharing information across the supply chain seemed to be the fierce competition faced by the Brazilian textiles industry in general. Previous studies found similar findings (Caglio, 2017; Kajuter & Kulmala, 2005; Cooper & Slagmulder, 2004). For example, Caglio (2017) argues that the environmental factors that influence OBA practices include both cost-based competition (the intensity of the market pressure to reduce costs) and the overall economic trend of the markets and/or countries in which the companies operate.

10.3.3.2 Regulations

There was some disclosure of information about firms' approach to managing social issues that were required by legislation. Thus, characterised as coercive isomorphism (DiMaggio & Powell, 1983). For example, in some cases companies were required to confirm if their suppliers were up-to-date with payments of taxes on payroll, thus CarpetCo regularly required this documentation from its suppliers. This type of information exchange had characteristics closer to monitoring practices rather than collaborative exchange of information, where CarpetCo required information from its suppliers but did not disclose any information in return.

10.3.3.3 "Brazil Cost"

According to the business manager within the regional development bank, employers did not monitor other practices apart from those that were compulsory because they already had too much bureaucracy to deal with and they did not have time and resources to do anything beyond what was compulsory. The manager further explained that the regional development bank, which was a branch of the national and state-owned development bank, was required to vet firms before granting loans, and she said that the bank only looked at the practices that were

required by regulation. For example, she explained that, as per the bank's procedures, she had to ensure that the firms applying for loans did not have forced labour, but she did not look into the practices across the firm's supply chain because this was not required by bank's procedures.

“...one of our obligations before providing funding is to ensure there is no slave labour, not reported as such... there are several rules. I also have to look at environmental issues, if the company is licensed, if there isn't an environmental problem, if there aren't any environmental liabilities. So I end up looking at all that and I only finance them if they look good. But even so I believe that it might happen. I don't know if it's a big concern yet in the supply chain, to check if the entire supply chain looks good, and all, the source of supply... A brand or two perhaps. But I believe it's not like that yet... This is differentiated, even because it is difficult to add this cost that exists to trace the supply chain into the product. So I think it still isn't something... it's a very specific niche... It depends a lot on the chain. For example, the lumber chain is more organized. In that chain, one of the obligations I have is to ensure the client buys certified wood... In the textiles chain I think there is no such thing. Because it largely depends on the requirements that the federal government enforce. I need, necessarily, to check if the company has no reported slave labour and has no environmental restrictions... Whether it is buying or selling [from a firm with forced labour], it's not up to me... there is no way to track it. Unless they have any reports because they are buying from... Co-responsibility, something like that. Otherwise I ignore it. I'll ask who the suppliers are and to whom they sell. I will see who these people are. But I will not do this screening because I end up not having time, and the funding becomes so difficult that ... They already have to meet our criteria, lots of things. However, as a chain of lumber, which is already an established chain, it is mandatory”
(Bank_BusM)

10.4 Summary

This chapter examined the OBA practices between buyers and suppliers across the case study supply chain. Firstly, the characteristics of the OBA practices in the case study were explored, including the type of information disclosed (e.g. financial and/or non-financial information), the extent of disclosure (e.g. data fully or partially disclosed), the frequency of information exchange (e.g. continuous or occasional), the form in which the information disclosure took place (e.g. formal and/or informal disclosure), and the direction of information disclosure (e.g. one-sided or two-sided). The chapter then explored the factors that influenced these practices, including the internal (intra-organisational), external (external environment) and inter-organisational (inter-firm relationships dynamics) factors. Simultaneously, the chapter analysed the effects of the OBA practices in the case study and their potential impact on the economic and social upgrading of Brazil. Each of these three dimensions (characteristics, influences and effects) will be discussed below with reference to the case analysis and to previous theoretical and empirical studies.

Previous studies argue that firms tend to adopt OBA when the relationship between the buyer and the supplier is at a mature stage, characterised as a relational relationship (e.g. Agndal & Nilsson, 2010; Cullen & Meira, 2010). The empirical evidence presented in this chapter suggests that the adoption of OBA practices varies according to the type of information exchanged rather than the inter-firm relationship arrangement. In this study, willingness to share information seemed to be lower when information exchange involved financial data, irrespective of the type of relationship with the partner. The findings in this indicate that the variations in the rules and routines in terms of OBA included the extent of disclosure (e.g. data fully or partially disclosed), the frequency of information exchange (e.g. continuous or occasional), the form in which the information disclosure took place (e.g. formal and/or informal disclosure), and the direction of information disclosure (e.g. one-sided or two-sided).

In terms of accounting and costs information, the findings indicate that disclosure of information was only partial and occasional, usually when suppliers had to justify

eventual price increases. Accounting and cost information were generally seen as sensitive data, and firms across the supply chain were not willing to fully disclose this type of information. One of the reasons for such resistance to disclosing accounting and cost information across the supply chain was the fear of opportunistic behaviour. In common with findings from previous studies (e.g. Agndal & Nilsson, 2010; Kajuter & Kulmala, 2005; Dekker, 2004), interviewees in this study feared that disclosing financial data could put them in disadvantage when negotiating prices. Another reason for the lack of willingness to disclose accounting and costs information was the perceived lack of purpose. Previous studies found similar findings (e.g. Kajuter & Kulmala, 2005). However, while Kajuter & Kulmala (2005) argue that lack of purpose is a firm-specific (internal) factor that influences OBA practices, in this study it was also noticeable that the perceived lack of purpose can be both an internal (intra-organisational) and an external factor that influence OBA practices. For example, the accounting manager within CarpetCo said that OBA was not a common practice in Brazil in general. One possible explanation for these findings may be the role of accountants in Brazil, which seemed to be a more traditional one. While previous studies found that the institutionalisation of new organisational routines is influenced by the institutions in the industry in which the organisation operates (Dambrin, Lambert, & Sponem, 2007), the findings in this study indicate that the adoption of sophisticated SCA practices such as OBA may also require a change in the institutions of the accounting profession, towards a more strategic role.

In terms of technical and procedural information, in most cases it seemed that there was no resistance to the idea sharing information. The findings show that there was occasional exchange of information, usually during site visits both from buyers and suppliers. In some cases, such exchange of information seemed to contribute to processes improvements across the supply chain which, in turn, may contribute to increased competitiveness and economic upgrading across the supply chain. For example, BackCoJC had implemented a new process inspired by their customer's process. These findings suggest that OBA practices have the potential to promote both economic and social upgrading in the external environment in which an organisation operates. While organisational rules and routines are influenced by institutional factors, these rules and routines can become institutionalised through

implementation and repetition over time (Burns & Scapens, 2000). The findings presented in this chapter indicate that, while the OBA practices were influenced by the institutional factors discussed above, the effects of the OBA practices can become part of the institutional environment in which these practices occurred.

In terms of information about approach to managing social issues, the findings show that information exchange varied according to both the type of information disclosed and the type of the inter-firm relationship. For example, close relationships with main suppliers and customers facilitated exchange of information at an informal level of what was perceived as “non-sensitive” information, mainly related to employment practices (e.g. work conditions, benefits provided to employees). There was some formal exchange of information as well, but this was typically limited to that required by legislation. For example, in some cases companies were required to confirm if their suppliers were up-to-date with payments of taxes on payroll. The findings in this study also suggest that, where observed, the exchange of information between buyers and suppliers had the potential to promote better work conditions across the supply chain. This was observed in the relationship between CarpetCo and its provider of freight services. Through the informal exchange of information CarpetCo became aware that its main freight service provider (carrier) did not have forklifts for moving products, putting workers’ safety at risk. As a result of this, CarpetCo provided safety equipment for the freight service firm’s employees. Furthermore, the findings in this study suggest that the exchange of information between buyers and suppliers had the potential to promote dissemination of best practices in terms of managing social issues across the supply chain. This was observed during the interview with the SM within BackCoJC, who said that he was “starting to think” about their approach to managing social issues after some of his customers asked him to disclose information about his company’s social responsibility actions. In conclusion, these findings imply that OBA has the potential to promote improvements in the broader social context in which the organisations operate and, in turn, to promote social upgrading.

CHAPTER 11: CONCLUDING DISCUSSIONS AND CONTRIBUTIONS OF THE STUDY

This chapter offers a concluding discussion of the main findings of this study using the conceptual framework proposed for this thesis. This chapter also discusses the main contributions and implications of this study. This chapter is structured as follows. The first section offers an overview of the study and the concluding discussions in light of the main aims and objectives. The second section discusses the theoretical contributions and the practical implications of this study. The third section discusses this study's limitations and provides recommendations for further research. Finally, this chapter ends with a personal reflection of my PhD journey.

11.1 Overview of the study and concluding discussions

This study explored the potential of supply chain accounting (SCA) to promote both economic and social upgrading. In pursuit of this aim, this study examined the SCA practices used by a case study focal organisation in the textiles industry Brazil and across its supply chain. Drawing on institutional theory, this study investigated the impact of the SCA practices used in the case study supply chain on the wider economic and social environment in which the organisations operated. By doing so, this study makes an important contribution to the body of research on accounting as a mechanism for development, which has so far been neglected (Hopper, Lassou, & Soobaroyen, 2017; Hopper & Bui, 2016; Hopper et al., 2012).

This research is based on an in-depth case study in Brazil. Data collection included in-depth interviews with senior and middle managers within the focal organisation and five of their main suppliers, and within other organisations that represented the wider Brazilian institutional context (national and regional industry federations, trade union, and a development bank), totalling 32 interviews across 11 organisations. The case study focal organisation (referred to as CarpetCo) operated in the textiles industry in Brazil in the household segment, specialising in floor covering products (mainly carpets). By using a case study in Brazil, this research also

contributes with empirical evidence to the under-research literature on management accounting in developing countries (Hopper & Bui, 2016)

In order to achieve this study's main purpose of exploring the potential of SCA to promote both economic and social upgrading, four specific objectives were developed. The first specific objective of this study refers to identifying the SCA practices used by a case study focal organisation in Brazil and across its supply chain. SCA here refers to the domain of management accounting and controls in inter-organisational settings. Accordingly, the SCA practices analysed encompass all forms of controls in inter-organisational settings, including control archetypes, management control mechanisms and cost and accounting controls (Caglio & Ditillo, 2008). In order to achieve the objective of identifying the SCA practices used in this case study, initially a wide range of SCA practices were explored and, after preliminary analysis of data collected, greater focus was given to the SCA practices that were more relevant to the case study and that offered richer empirics to achieve this study's purpose and objectives. Thus, in common with previous exploratory case study studies (Cooper & Slagmulder, 2004), the preliminary case analysis helped to identify the SCA practices to focus on in the course of the research. This study identified four SCA practices used to a greater extent by the case study focal organisation and across its supply chain: 1) inter-firm governance; 2) make-or-buy decisions; 3) customer accounting; and 4) open book accounting (OBA). It is important to note that this list is not exhaustive; and that the line that separates these practices may sometimes be blurred. For example, the rules and routines in relation to customer accounting (e.g. customer relationships) could be regarded as one of the mechanisms for managing inter-firm relationships within inter-firm governance. Another example is concerned with OBA. Considering that OBA refers to the exchange of information between buyers and suppliers across the supply chain (Caglio, 2017; Caglio & Ditillo, 2012; Windolph & Moeller, 2012; Agndal & Nilsson, 2010; Kajuter & Kulmala, 2005), OBA is inevitably embedded in all four SCA practices identified. By identifying and describing in details the SCA practices used in a case study in Brazil, this study also contributes to the body of empirical research of SCA.

In relation to inter-firm governance, this study described the relationship arrangements between the case study focal organisation (CarpetCo) and its suppliers, and explored the rules and routines in terms of supplier selection within CarpetCo. Make-or-buy decisions were discussed with regards to the decision-making process within CarpetCo in relation to outsourcing and/or insourcing in general and, more specifically, with regards to a process of insourcing through which CarpetCo was undergoing during the data collection. In relation to customer accounting, this study described the relationship arrangements between CarpetCo and its customers, and explored the techniques used by CarpetCo to measure and manage its customers. Finally, this study explored the OBA practices between buyers and suppliers across the case study supply chain. Firstly, this study explored the characteristics of OBA practices between CarpetCo and its customers and supplier. Secondly, given that some of CarpetCo's suppliers were interviewed as part of this study, the OBA practices of four of these suppliers with their own customers and suppliers were explored in the context of four mini case studies. More specifically, the OBA practices across the case study supply chain were explored in relation to the exchange of three types of information: accounting and costs, technical and procedural, and information about approach to managing social issues. The findings derived from achieving this first objective enabled the achievement of the other three specific objectives, as will be explained below.

The second specific objective of this study refers to investigating the factors that shaped the SCA practices used across the case study supply chain using the lens of institutional theory. In order to achieve this objective, a conceptual framework was devised drawing on concepts of two strands of institutional theory: OIE and NIS. Drawing on these strands of institutional theory enabled this study to obtain an in-depth understanding of all the core factors that shaped the rules and routines in terms of SCA across the case study supply chain, including the external, inter-organisational and internal (intra-organisational) factors. Figure 11.1 consolidates the conceptual framework for SCA practices derived from the case analysis. In other words, the conceptual framework devised in chapter 3 is taken forward here by incorporating this study's findings. The empirical evidence in this study confirmed the expectations that there were three types of institutional factors that impacted upon the SCA rules and routines: external environment factors, inter-organisational

(supply chain related) factors and internal (intra-organisational) factors. Although inter-organisational factors may also be regarded as an external factor, this approach to the case analysis was undertaken seeking to differentiate the factors that shaped the SCA practices observed in this study that may be specific to this case study supply chain from those factors that may be regarded as relevant to the Brazilian industry in general. It is important to note that the line between these types of institutional factors may sometimes be blurred. For example, technological uncertainty may be referred to as both an external and an inter-organisational factor that impacted upon the SCA rules and routines. In other words, technological uncertainty may refer to uncertainty in relation to the technological capability of the suppliers and/or to uncertainty in relation to the technological development of the organisational field/industry or country. The three types of institutional factors that impacted upon SCA (external, inter-organisational and internal) in this study are represented in the three boxes to the leftmost in Figure 11.1. Each of these factors will be discussed below with reference to this study's empirical findings as well as with previous theoretical and empirical studies.

In relation to the external environment factors, the evidence in this study suggest that SCA practices are shaped by environmental uncertainties, which refer to the lack of predictability and/or control over the broader context in which the firms operate (Dekker, Sakaguchi, & Kawai, 2013; Agndal & Nilsson, 2010; Dekker, 2008). For example, the lack of technological development in the textiles industry impacted upon the SCA practices in terms of inter-firm governance. This was observed in CarpetCo's partner selection process for the suppliers of primary backings. As explained in chapter 7, CarpetCo chose to import these materials even though they involved higher costs because the quality of the national material was inadequate. Interestingly, the local supplier in question (BackCoJC) was interviewed as part of this study and he revealed that his company was facing difficulties to purchase modern machinery to be used in their production process, due to the lack of manufacturers of that kind of machinery in Brazil, and to the difficulty of his company in getting access to financing to import the machinery. Moreover, the manager within BackCoJC explained that the importing process in Brazil was too complex, onerous and unpredictable, adding to their difficulty in achieving modern machinery. These findings also suggest that another environmental uncertainty

factor which shaped the SCA in this study refers to the importing process in Brazil. The findings here confirm the arguments put forward in chapter 5 in relation to the 'Brazil cost'. As explained in chapter 5, 'Brazil Cost' was a widely used term throughout the country to refer to all the factors that increased the costs of operating in Brazil and that consequently decreased competitiveness, which included the high tax burden and bureaucracy. The onerous and burdensome importing process may therefore be regarded as 'Brazil cost' factor that shaped the SCA practices in the textiles industry in Brazil.

Another external factor that shaped the SCA practices in terms of inter-firm governance in this study refers to government initiatives such as incentives for local content. This was observed in CarpetCo's selection of suppliers of secondary backings. As explained in chapter 7, CarpetCo had the option to procure secondary backings either from local or from external suppliers. Both the external and the local suppliers attended the minimum quality requirements, but the cost of the imported material was slightly lower. Nonetheless, rather than buying the materials with the lower cost, CarpetCo decided to buy these materials from both external and local suppliers and keep a mix of national and imported secondary backings in stock. This decision was driven by a government incentive for local content which determined that exports to the countries within the Mercosur bloc would be free of taxes as long as 60% of the sales price was related to Brazilian products and/or to cost incurred within Brazil. By buying a mix of national and imported products, CarpetCo took advantage of both the lower cost and of the government incentive. Therefore, the findings here suggest that government initiatives such as incentive for local content may impact organisations' SCA practices. On the other hand, the findings in this study also suggest that when product criticality was high, government initiatives did not have an impact on inter-firm governance. This could be observed in the case of yarns and fibre, which were the most critical materials for CarpetCo. CarpetCo chose to import yarns and fibre because the quality of the national material was inadequate, despite the government incentive for local content.

A further external factor that shaped the SCA practices in this case study was concerned with regulations. This was observed in the OBA practices between

CarpetCo and some of its suppliers in relation to information about approach to managing social issues. For example, in some cases the regulation established that companies were co-responsible for the employment practices of their suppliers, including for the payment of taxes on payroll. In these cases CarpetCo regularly required documentation from the suppliers confirming that they were up-to-date with payments of taxes on payroll. Therefore, CarpetCo's practice of requiring information was a result of a coercive pressure (DiMaggio & Powell, 1983). This information disclosure can be characterised as a means for monitoring practices, rather than as a collaborative exchange of information. In other words, CarpetCo required information from its suppliers but did not disclose any information in return. Therefore, this practice also exerted coercive pressure (DiMaggio & Powell, 1983) on CarpetCo's suppliers.

The evidence in this study suggests that the factors that shaped the SCA practices also included inter-organisational factors such as behavioural uncertainties, which refer to difficulties in predicting and controlling how the exchange partner will behave in the future (Ding, Dekker, & Groot, 2013; Agndal & Nilsson, 2010). For example, the findings here confirm the assumptions in previous studies that SCA practices in terms of inter-firm governance are impacted by behavioural uncertainties arising from the characteristics of the transaction involved in the inter-firm relationships, such as the criticality of the product for the buyer (Kumra, Agndal, & Nilsson, 2012; Agndal & Nilsson, 2010), the levels of switching costs (Kumra, Agndal, & Nilsson, 2012; Agndal & Nilsson, 2010; Dekker, 2008; Håkansson & Lind, 2004; van der Meer-Kooistra & Vosselman, 2000), and the number of alternative suppliers (Kumra, Agndal, & Nilsson, 2012; Agndal & Nilsson, 2010; Dekker, 2008; Håkansson & Lind, 2004), or lack of suppliers' competition (Dekker, Sakaguchi, & Kawai, 2013; Dekker & Van den Abbeele, 2010). The findings in this study suggest that behavioural uncertainties also shaped the SCA practices in terms of OBA. For example, in common with previous studies (Agndal & Nilsson, 2010; Kajuter & Kulmala, 2005; Dekker, 2004), one of the reasons for not disclosing accounting and costs information across the case study supply chain was the fear that the partner would use the information to their advantage (fear of opportunistic behaviour).

Also in common with previous literature (Xie, Liang, & Zhou, 2016; Ding, Dekker, & Groot, 2013; Dekker & Van den Abbeele, 2010; Dekker, 2008; Buskens, Batenburg, & Weesie, 2003), another inter-organisational factor that shaped the SCA practices in this study was the social embeddedness between buyers and suppliers. Social embeddedness refers to information about the supplier held by the buyer acquired from the buyer's own previous experience with the supplier and/or from the supplier's previous experience with other partners (Buskens, Batenburg, & Weesie, 2003). Perhaps not surprisingly, the evidence in this study further suggests that social embeddedness may also be linked to firms' ownership structure. For example, CarpetCo was part of an international business group (TexCorp) and CarpetCo had closer and more personal relationships with its suppliers from within the same group. In other words, the ownership structure of the suppliers seemed to influence social embeddedness, whereby uncertainties were reduced by the fact that the buyer and supplier had ties in common. Social embeddedness impacted SCA practices in terms of inter-firm governance, both in relation to partner selection and relationship arrangements, and in terms of OBA practices.

Being part of an international business group also seemed to have shaped CarpetCo's SCA practices in terms of make-or-buy decisions. For example, CarpetCo was undertaking a process of insourcing the production of one of its raw materials (asphalt backing). As explained in chapter 8, this material was already made in-house by another firm within the same company group (TapisCo), which was also a carpet manufacturer but operating in a different country (Eurocountry2). The decision for CarpetCo's change may be explained by different isomorphic pressures. One of these pressures refers to mimetic isomorphism, which occurs when an organisation imitates the systems in use by other organisations perceived to be more legitimate or successful (Brandau et al., 2013; Tsamenyi, Cullen, & González, 2006; DiMaggio & Powell, 1983). The findings in this study suggest that CarpetCo seemed to be imitating the process used by TapisCo which seemed to be perceived as more successful. This was evident in the interviews with the supply chain manager (SCM) within CarpetCo. Simultaneously, the process change within CarpetCo may also be explained by an account of normative isomorphism. Normative isomorphism relates to the adoption of internal structure and procedures encouraged by influential actors (Brandau et al., 2013; Tsamenyi, Cullen,

& González, 2006; DiMaggio & Powell, 1983). The findings here may suggest that the firm from within the same company group that made the asphalt backing in-house (TapisCo) may have played a role as an influential actor. Moreover, Brandau et al. (2013) suggest that normative isomorphism may also be a reaction to normative pressures from the networks in which an organisation is embedded. Therefore, the findings in this study suggest that an organisation which is part of a larger company group may face both mimetic and normative pressures to adopt similar structure and/or practices to those of other firms from within the same group.

In relation to the internal factors, the findings in this study suggest that the SCA practices used by the organisations across the supply chain were influenced by factors such as individuals' previous institutions (or taken-for-granted assumptions). For example, in common with previous literature (Kajuter & Kulmala, 2005), the perceived lack of purpose of OBA was a barrier for firms to fully engage with the practice. On the other hand, while Kajuter & Kulmala (2005) argue that the perceived lack of purpose is a firm-specific (internal) factor that influences OBA practices, the findings in this study seem to suggest that the perceived lack of purpose may be both an internal (intra-organisational) and an external factor that influence OBA practices. For example, the accounting manager within CarpetCo said that OBA was not a common practice in Brazil in general. One possible explanation for these findings may be the role of accountants in Brazil, which seemed to be a more traditional one. While previous studies found that the institutionalisation of new organisational routines is influenced by the institutions in the industry in which the organisation operates (Dambrin, Lambert, & Sponem, 2007), the findings in this study seem to suggest that the institutionalisation of new organisational routines may also be influenced by the institutions of the accounting profession in the country where the organisation operates. Thus, the adoption of sophisticated SCA practices such as OBA may also require a change in the institutions of the accounting profession towards a more strategic role.

Another internal factor that shaped the SCA practices used across the supply chain was the organisations' internal accounting and cost systems. For example, previous studies on OBA argue that the adoption of OBA practices requires sound (or

sophisticated) cost and accounting systems (Caglio, 2017; Kajuter & Kulmala, 2005; Seal et al., 1999). The suggestions in these studies may help to explain the shape of the OBA practices in this case study. CarpetCo seemed to lack a sophisticated accounting system. For example, the accounting manager admitted that they had only recently started to compute accounting figures such as EBITDA (Earnings Before Interest, Tax, Depreciation and Amortization), and indicators such as stock turnover ratio, receivables settlement period and working capital. He also revealed that they were seeking to implement the computation of payables settlement period as part of the same project, however this was still a work in progress because CarpetCo previously had the practice of recording all payables in the same ledger account, therefore they did not know the amount owing to suppliers of raw material alone. In other words, the current accounting system did not differentiate between accounts payable to suppliers of raw materials and accounts payable to other suppliers and/or service providers. Another indication of the lack of sophistication of CarpetCo's accounting systems was the lack of use of a Balanced Scorecard. When the accounting manager was asked whether CarpetCo used Balanced Scorecard, he admitted that although he was aware of, he not familiar with the practice. A further indication of the lack of sophistication of CarpetCo's accounting systems was the fact that they had contemplated to implement ABC in the past, but it had not worked (thus they still used the absorption method for allocation of overhead costs), signalling lack of reliable cost data.

Possible explanations for CarpetCo's lack of a sophisticated accounting system may be related to external factors, including the firm's industry and country of operation. Previous studies on OBA practice have so far focused on industry sectors which are more likely to adopt new accounting methods and implement sophisticated cost accounting systems, such as the automotive industry (Windolph & Moeller, 2012; Möller, Windolph, & Isbruch, 2011; Agndal & Nilsson, 2010; Kajuter & Kulmala, 2005; Cooper & Slagmulder, 2004), the information technology and telecommunications industry (Agndal & Nilsson, 2010; Dekker, 2008; Mouritsen, Hansen, & Hansen, 2001), and the mechanical engineering industry (Kajuter & Kulmala, 2005; Mouritsen, Hansen, & Hansen, 2001; Seal et al., 1999). Furthermore, empirical studies on OBA practice so far have largely focused in developed countries, such as Japan (Cooper & Slagmulder, 2004), the UK (Seal et al., 1999),

and northern European countries such as Germany (Windolph & Moeller, 2012; Möller, Windolph, & Isbruch, 2011; Kajuter & Kulmala, 2005), Denmark (Mouritsen, Hansen, & Hansen, 2001), Sweden (Agndal & Nilsson, 2010), and Finland (Kajuter & Kulmala, 2005).

The third specific objective of this study refers to examining the impact of the SCA practices used across the case study supply chain on the external economic environment in which the organisations operated, exploring the potential of SCA to promote economic upgrading. The findings in this study suggest that the SCA practices used across the supply chain impacted upon the external economic environment in many ways. These are represented in Figure 11.1 in the upper rightmost box. Firstly, as explained above, CarpetCo chose to import primary backings materials rather than to purchase from a local supplier (BackCoJC) because the quality of the national material was inadequate. Choosing the imported over the national material resulted in a loss of business to the local supplier (thus in reduced economic activity for the national industry). From an institutional perspective (ter Bogt & Scapens, 2014; Burns & Baldvinsdottir, 2005; Burns & Scapens, 2000), the previous institutions (e.g. lack of technological development) shaped the SCA practices (e.g. supplier selection), which impacted upon the external economic context (i.e. reduced economic activity). Moreover, as explained above, the local supplier in question (BackCoJC) was interviewed as part of this study and he revealed that financial difficulties were a barrier for his company to purchase modern machinery to be used in their production process. Therefore, by losing the bid to supply primary backings to CarpetCo, the supplier's inability to purchase modern machinery may have been reinforced. Thus, the findings here suggest that the lack of technological development in the textiles industry in Brazil seemed to be both a factor that impacted upon the SCA practices and an effect of the SCA practices. In other words, by choosing to import the material (rather than, for example, engaging in collaborative actions with the local supplier to help them to get access to the technology and to improve quality), CarpetCo may have played a role in the reinforcement of the lack of technological development in the textiles industry in Brazil (and arguably consequently, in the reinforcement of the low quality of the national material). From an institutional perspective (ter Bogt & Scapens, 2014; Burns & Baldvinsdottir, 2005; Burns &

Scapens, 2000), the previous institutions (e.g. lack of technological development) shaped the SCA practices (e.g. supplier selection) which impacted upon the external economic context (e.g. lack of technological development). Therefore, the evidence in this study shows that the SCA practices within the focal organisation impacted upon the wider economic environment in which the organisation operated. Consequently, these findings imply that the use of SCA (e.g. collaborative efforts) may have the potential to increase competitiveness of the textiles industry in Brazil (e.g. improved quality) and, in turn to contribute to the economic upgrading of Brazil (e.g. technological development).

The fourth specific objective of this study refers to examining the impact of the SCA practices used across the case study supply chain on the social context in which the organisations operated, exploring the potential of SCA to promote social upgrading. The findings in this study suggest that the SCA practices used across the supply chain impacted upon the wider social environment in which the organisations operated in many ways. The effects of the SCA practices on the social context are represented in Figure 11.1 in the lower rightmost box, and each of them will be explained below.

Firstly, the findings in this study show that SCA has the potential to promote better work conditions across the supply chain through collaborative relationships between buyers and suppliers. This was observed in the relationship between CarpetCo and its provider of freight services (carrier). CarpetCo used customer accounting techniques in order to make strategic decisions in relation of which customers to be prioritised. The main customer segment (region) was prioritised in relation to product delivery (next day delivery). In order to be able to provide next day delivery, CarpetCo built a strong long-term relationship with a freight services provider (carrier). Such close relationship with the carrier facilitated information exchange. Through the exchange of information CarpetCo became aware that the carrier did not have forklifts for moving products, putting workers' safety at risk. In response, CarpetCo provided the forklifts and other safety equipment for the freight service firm's employees, improving the work conditions. Therefore, the findings here suggest that the use SCA practices (both customer accounting and OBA) promoted better work conditions across the supply chain.

The findings in this study also imply that SCA has the potential to impact upon employment practices across the supply chain, such as employment security and employee's wages. In terms of employment security, this was observed in CarpetCo's choice of supplier of primary backings. As explained above, CarpetCo chose to import these materials over purchasing from a local supplier (BackCoJC). As mentioned above, the sales manager within BackCoJC was interviewed as part of this study and he revealed that his company was facing financial difficulties. During the interview, the manager also revealed that BackCoJC's owner had recently considered shutting down the production in Brazil altogether and starting to import the finished products from China to resell in Brazil. Therefore, the SCA practices in terms of supplier selection here had the potential to impact the employment security in the Brazilian industry. In terms of the impact of CarpetCo's SCA on employees' wages, this was observed in the case of supplier selection for secondary backings. CarpetCo had recently changed the supplier for these materials because the new supplier offered a lower price (both suppliers achieved the minimum quality requirement). The HR manager within the new supplier for this material (BackCoJC), who was also interviewed as part of this study, revealed that he was aware that his company paid lower salaries compared to CarpetCo's previous supplier. It has been argued that low-paid work poses challenges for a country's social and economic development (Fontes, Pero, & Berg, 2012). The findings here imply that CarpetCo's lack of awareness of the suppliers' accounting information (e.g. labour costs) may have led to changing to a supplier with worse employment practices which, in turn, may impact upon the social upgrading of region and/or country.

The findings in this study suggest that SCA practices may also impact workers in terms of skill development. This was observed in the case of insourcing which CarpetCo had recently undertaken. As explained in chapter 8, the new process of manufacturing asphalt backing in-house required specific skills, thus CarpetCo's employees allocated to work on the new process went to EuroCountry2 for training. These findings partly support the assumptions made by Barrientos, Gereffi, & Rossi (2011) in relation to the implications of economic upgrading for workers. The findings within CarpetCo are consistent with Barrientos, Gereffi, & Rossi's (2011)

assumption that when economic upgrading involves the introduction of more advanced products (product upgrading), it may require more skilled labour. However, the findings here do not support Barrientos, Gereffi, & Rossi's (2011) assumption that when economic upgrading involves process improvements (process upgrading) it may reduce work through automation. The findings within CarpetCo show that the new production process, which was seen as both a product and a process upgrading, both required (and resulted in) skill development and job creation (given that CarpetCo had hired one new employee to work on this process).

The findings in this study also suggest that SCA may have the potential to promote social upgrading in the environment in which an organisation operates through the dissemination of best practices across the supply chain. This was observed in the analysis of the OBA practices within BackCoJC, one of CarpetCo's suppliers (mini case study 1 in chapter 10). During the interview with the sales manager within BackCoJC, the manager said that he was "starting to think" about their approach to managing social issues after some of his customers asked him to disclose information about his company's social responsibility actions. Therefore, these findings suggest that OBA may have the potential to promote dissemination of best practices in terms of managing social issues across the supply chain, resulting from mimetic isomorphism (Brandau et al., 2013; DiMaggio & Powell, 1983). In other words, in this case the supplier seemed to be inclined to imitate the (good) practices within their customers.

Finally, the evidence in this study suggest that SCA has the potential to complement the role of trade unions in monitoring and enforcing compliance with the employment regulations across the supply chain and, consequently, promoting social upgrading in the environment in which the organisation operate. As reported in chapter 5, one of the roles of the trade unions in Brazil was to highlight where employment regulations were not being observed. However, the president of the regional trade union explained that, due to lack of resources, the trade union had the practice of auditing employers only when someone reported that the employer was not compliant with the regulations. The potential of SCA to complement the role of trade unions in monitoring compliance with the employment regulations was observed in CarpetCo's supplier selection process, whereby CarpetCo required

the suppliers to provide documentation showing that they were in compliance with employment regulations. In other words, CarpetCo's SCA practices (supplier selection) may have promoted social upgrading through a process of coercive isomorphism (Brandau et al., 2013; DiMaggio & Powell, 1983).

In conclusion, the evidence in this study shows that the SCA practices used by the case study focal organisation in the textiles industry in Brazil and across its supply chain impacted upon the wider social and economic context in which the organisations operated. Although the intention of this study was to find best practices, the findings revealed instances in which the SCA practices impacted upon the external environment both in positive and in negative ways. Nonetheless, the evidence that SCA impacts upon the economic and social context in which the organisations operated imply that SCA may have the potential to promote both economic and social upgrading in the environment in which the organisations operate.

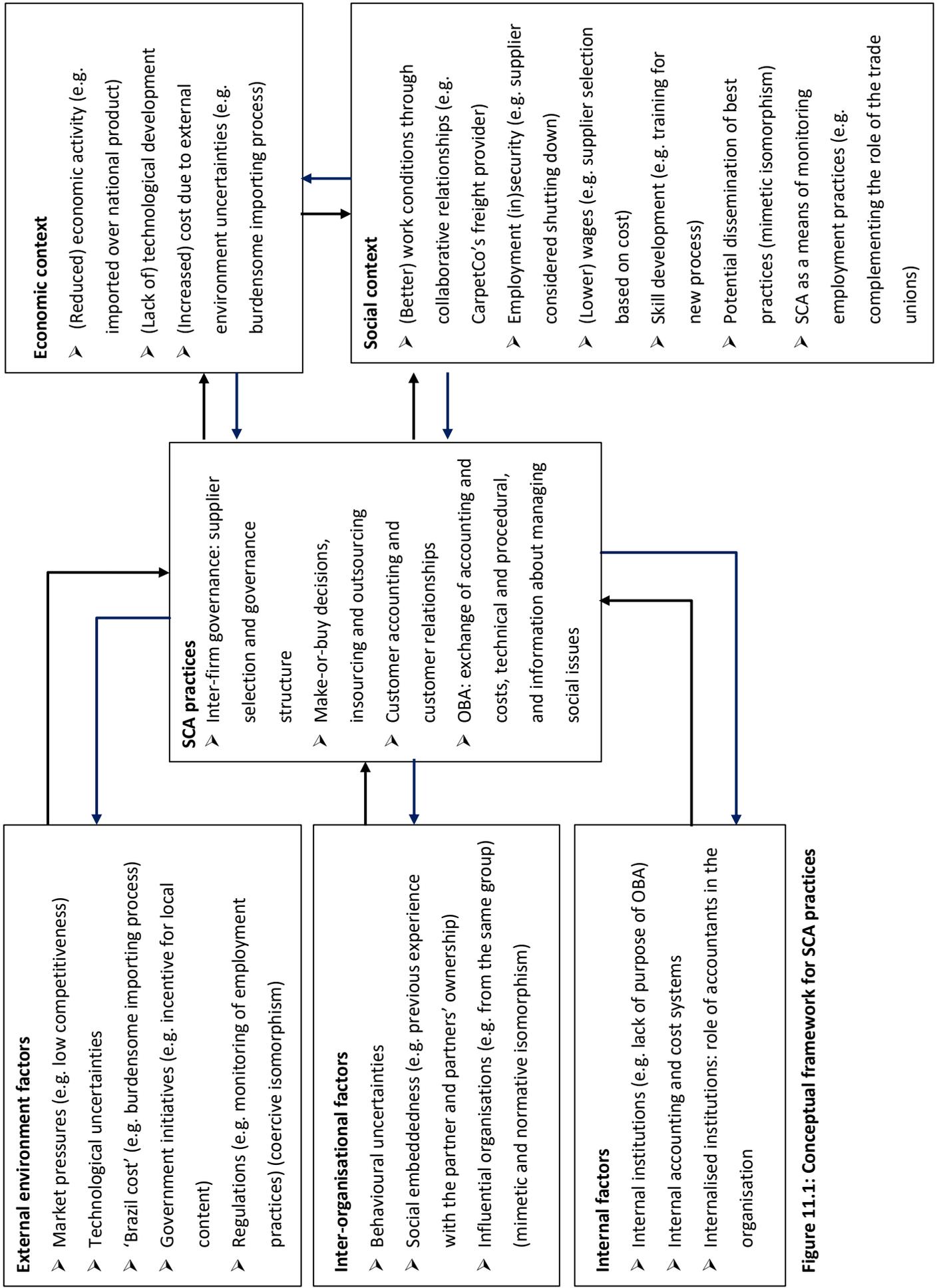


Figure 11.1: Conceptual framework for SCA practices

11.2 Contributions and implications of the study

This section discusses the main contributions and implications of this study. This section is divided into two sections. The first section discusses this study's main contributions to theory. The second section discusses the implications to practice and policy of this study.

11.2.1 Theoretical contributions

In order to locate this study's contributions to theory, this thesis uses the distinction between domain theory and method theory put forward by Lukka & Vinnari (2014). Domain theory is regarded as "a particular set of knowledge on a substantive topic area situated in a field or domain such as management accounting" and method theory is regarded as "a meta-level conceptual system for studying the substantive issue(s) of the domain theory at hand" (Lukka & Vinnari, 2014, p. 1309). This study is located within the domain theory of SCA which refers to the topic area of management accounting and controls in inter-organisational settings. The method theory used for studying SCA is institutional theory. In other words, institutional theory is the method theory used as an auxiliary to enable this study's contributions to the domain theory of SCA. Although both domain theory and method theory tend to be moving fields, domain theories tend to change more often, and method theories can help advance knowledge in a particular domain theory even when the method theory is applied as an instrument and does not change itself (Lukka & Vinnari, 2014). Accordingly, this study uses institutional theory as an instrument to advance knowledge in the domain theory of SCA.

In relation to the domain theory of SCA, this study makes several contributions. Firstly, by using a case study in the textiles industry in Brazil, this study contributes to the under-researched literature of management accounting in developing countries (Hopper & Bui, 2016). More specifically, by providing empirical evidence of the use of SCA practices in a case study in Brazil, this study also makes several contributions to the literature of SCA. As explained above, this study examined four SCA practices which were the most relevant for this case study: inter-firm governance, make-or-buy decisions, customer accounting and open book

accounting (OBA). The main contributions of this study to the body of literature of each of these practices will be discussed below.

In terms of inter-firm governance, the findings in this study make several contributions to the literature. One of these contributions is the fact that this study extends some of the findings from previous studies conducted in developed countries to the context of a developing country. For example, the evidence in the textiles industry in Brazil agrees with previous studies that propose that one of the key determinants of inter-firm governance choices is the level of uncertainty involved in the exchange transaction (Dekker, Sakaguchi, & Kawai, 2013; Ding, Dekker, & Groot, 2013; Kumra, Agndal, & Nilsson, 2012; Agndal & Nilsson, 2010; Dekker & Van den Abbeele, 2010; Dekker, 2004, 2008; Håkansson & Lind, 2004; van der Meer-Kooistra & Vosselman, 2000). In common with the findings in these studies, CarpetCo had different types of relationship arrangements with its tier 1 suppliers depending on the transaction characteristics such as the levels of uncertainty. The findings in the textiles industry in Brazil confirm that behavioural uncertainties may be significantly affected by product criticality (Kumra, Agndal, & Nilsson, 2012; Agndal & Nilsson, 2010), the number of alternative suppliers (Dekker, Sakaguchi, & Kawai, 2013; Kumra, Agndal, & Nilsson, 2012; Agndal & Nilsson, 2010; Dekker & Van den Abbeele, 2010; Dekker, 2008), and the level of switching costs (Agndal & Nilsson, 2010). Also in common with previous literature, the exchange transactions between CarpetCo and its suppliers involved environmental uncertainty, such as unpredictability and/or lack of technological development (Dekker, Sakaguchi, & Kawai, 2013; Agndal & Nilsson, 2010; Dekker, 2008). With the exception of the study by Kumra, Agndal, & Nilsson (2012) which was conducted in India, all the above-mentioned studies were conducted in developed countries.

Another important contribution of this study to the literature of inter-firm governance is concerned with the influence of asset specificity on partner selection and governance structure. In contrast with previous studies (Dekker, Sakaguchi, & Kawai, 2013; Ding, Dekker, & Groot, 2013; Agndal & Nilsson, 2010; Dekker & Van den Abbeele, 2010; Dekker, 2004, 2008), asset specificity did not seem to impact the relationships between CarpetCo and its suppliers. One possible explanation for this may be CarpetCo's industry and/or product characteristics. Many studies which

discussed the influence of asset specificity on inter-firm governance were conducted in industries that involve high technology development, such the information technology industry (Kumra, Agndal, & Nilsson, 2012; Dekker & Van den Abbeele, 2010; Dekker, 2008), the telecommunications industry (Agndal & Nilsson, 2010), the automotive industry (Agndal & Nilsson, 2010), rail infrastructure (Dekker, 2004), and other complex manufacturing industries (Dekker, Sakaguchi, & Kawai, 2013). In this study, conducted in the industrial textiles industry, the materials did not involve customisations or high levels of technological development. Therefore, the findings in this study may suggest that asset specificity has little or no influence on inter-firm governance within industries that do not involve high levels of technological development.

This study also makes several contributions to the literature on OBA, which is still in its infancy (Caglio, 2017). OBA refers to the exchange of both financial and non-financial information across the supply chain (Caglio, 2017; Caglio & Ditillo, 2012; Windolph & Moeller, 2012; Agndal & Nilsson, 2010; Kajuter & Kulmala, 2005). Given this study's aim of exploring the potential of SCA to promote both economic and social upgrading, the rules and routines in terms of OBA practices in this study were analysed by the type of information disclosed, which were divided into: accounting and costs information, technical and procedural information, and information about approach to managing social issues. The case analysis here revealed that the extent to which firms exchanged information with their buyers and suppliers varied according to the type of information exchanged. These findings differ from previous studies which argued that the extent to which firms engage in OBA practices varied according to the type (or maturity) of the inter-firm relationship (Möller, Windolph, & Isbruch, 2011; Cullen & Meira, 2010). In this study, willingness to share information seemed to be lower when information exchange involved financial data, irrespective of the type of relationship with the partner. The findings show that accounting and costs information were generally seen as sensitive data, and firms across the supply chain were not willing to fully disclose this type of information.

This study also contributes to the literature on OBA by extending some of the findings from previous studies conducted in developed countries to the context of

a developing country. Empirical studies on OBA so far have largely focused in developed countries, such as Japan (Cooper & Slagmulder, 2004), the UK (Seal et al., 1999), and northern European countries such as Germany (Windolph & Moeller, 2012; Möller, Windolph, & Isbruch, 2011; Kajuter & Kulmala, 2005), Denmark (Mouritsen, Hansen, & Hansen, 2001), Sweden (Agndal & Nilsson, 2010), and Finland (Kajuter & Kulmala, 2005). Furthermore, previous studies on OBA practice have so far focused on industry sectors which are more likely to adopt new accounting methods and implement sophisticated cost accounting systems, such as the automotive industry (Windolph & Moeller, 2012; Möller, Windolph, & Isbruch, 2011; Agndal & Nilsson, 2010; Kajuter & Kulmala, 2005; Cooper & Slagmulder, 2004), the information technology and telecommunications industry (Agndal & Nilsson, 2010; Dekker, 2008; Mouritsen, Hansen, & Hansen, 2001), and the mechanical engineering industry (Kajuter & Kulmala, 2005; Mouritsen, Hansen, & Hansen, 2001; Seal et al., 1999). Therefore, this study also extends the literature to the context of the textiles industry.

Finally, by examining the impact of the SCA practices used across the case study supply chain on the broader social context in which the organisations operate and exploring the potential of these practices to promote social upgrading, this study also addressed calls for accounting research that deals with social issues (Hopper & Bui, 2016), and for further research exploring ways of managing social issues in supply chains (Yawar & Seuring, 2017). The findings in this study suggest that OBA had the potential to promote better work conditions across the supply chain. This was observed particularly in the relationship between CarpetCo and its provider of freight services. Through the informal exchange of information CarpetCo became aware that its main freight service provider (carrier) did not have forklifts for moving products, putting workers' safety at risk. As a result of this, CarpetCo provided safety equipment for the freight service firm's employees. Yawar & Seuring's (2017) work show that labour conditions and health and safety are areas of much debate in term of social issues in supply chains, and the authors called for further research identifying 'responsible supply chain actions' for managing social issues in supply chains. CarpetCo's reaction to the carrier's poor health and safety practices can be regarded as an example of a responsible supply chain action.

Therefore, these findings suggest that SCA may be used as a means for managing social issues in supply chains.

11.2.2 Practical implications

This study also has implications for policy and practice. Firstly, by examining the impact of SCA on the wider economic environment in which the organisations operated, this study has elucidated some of the factors that impacted upon the low competitiveness of the textiles industry in Brazil. Furthermore, the evidence in this study suggest that SCA has the potential to promote increased competitiveness (and, by promoting increased competitiveness, SCA may ultimately promote economic upgrading). Therefore, these findings may help inform policy and organisational practices aimed at increasing the competitiveness of the industry.

For example, the findings in this study suggest that the Brazilian textiles industry was “stuck in the middle”, given that it could neither compete in quality with high technological countries nor in cost with low cost countries. The findings in this study further suggest that one of the reasons for the textiles firms to struggle to compete in quality was the difficult access to modern machinery. One of the reasons for the difficult access to modern equipment was the lack of manufacturers of certain types of machinery in Brazil, which forced the firms in the textiles industry to import. The Brazilian importing process itself was another barrier to firms’ access to modern equipment, given that importing the process was complex, onerous and unpredictable. Thirdly, the textiles firms faced financial difficulties and lack of access to credit, adding to their inability to import machinery since external suppliers usually required upfront payment. These findings could influence policies aimed at developing the textiles industry in Brazil. For example, during the interview with the manager of the regional development bank, the manager revealed that although the bank had some specific initiatives to help other industries in the region, they did not have any initiatives targeted to help textiles firms to achieve equipment. The findings here may influence future initiatives by the development bank. For example, in light of these findings, and considering the importance of the textiles industry to the Brazilian economy, the development bank might consider facilitating credit for firms in the textiles industry to buy modern

machinery. Another suggestion (and perhaps more ambitious) is for the development bank (or the government) to consider initiatives to stimulate the establishment of manufacturers of those types machinery in Brazil. A third and perhaps even more ambitious suggestion is for the government to revise the burdensome importing process in Brazil.

The findings in this study also suggest that SCA had the potential to promote better practices in terms of managing social issues across supply chains. For example, the findings suggest that the exchange of information between buyers and suppliers had the potential to promote dissemination of best practices in terms of approach to managing social issues. This was observed during the interview with the SM within BackCoJC, who said that he was “starting to think” about their approach to managing social issues after some of his customers asked him to disclose information about his company’s social responsibility actions. It has been argued that social responsibility can be influencing factor in inter-firm relationships decisions both for moral reasons and for financial performance reasons (Yawar & Seuring, 2017; Klassen & Vereecke, 2012; Dibben et al., 2002). Yawar & Seuring (2017). suggest that ensuring labour rights and providing safe conditions and a healthy workplace can help firms to attract and retain skilled labour in the long run which, in turn, may influence firms’ reputation and economic performance (Yawar & Seuring, 2017). In other words, besides the moral reasons for firms to tackle these social issues in supply chains, there seems to be a business case for managing labour conditions and health and safety across a firm’s supply chain. Therefore, the findings in this study may also have practical implications, as these findings may influence companies’ practices, policies and codes of conduct. Promoting better practices in terms of managing social issues across supply chains is particularly important in the context of a low enforcement country such as Brazil. Given the weak capacity of enforcement in Brazil (as explained in chapter 5), monitoring of bad practices down the supply is less likely to be achieved through regulations. Therefore, by promoting better practices in terms of managing social issues across supply chains, SCA may consequently contribute both to the social upgrading of the region and/or country (e.g. by ensuring workers earn a living wage, promoting better work conditions and equality) and to the economic upgrading of the region and/or country (e.g. by attracting and retaining skilled labour in the long run).

11.3 Limitations of the study and future research

This study has limitations. Firstly, it is important to mention that, as it usually is the case with qualitative case studies, the generalisability of this research is limited. Nonetheless, what may appear to be a limitation from a particular philosophical perspective; from another perspective, may be seen a strength. Researchers with a predilection for a positivist epistemology tend to criticise case study research for its limitation of producing generalisations (Lee and Saunders, 2017). On the other hand, this view downplays the important role of case study research for theorizing about the case through particularization. As argued by Lee & Saunders (2017, p.9), “a case may be interesting in its own right and does not require wider inferences to give it greater value”.

Other limitations of this study refer to the lack of access to some type of information and to a wider range of participants. Firstly, the focal organisation and its suppliers were not willing to share accounting and costs information. Secondly, the focal organisation was also not willing to involve employees at lower hierarchical levels within the organisation.

A further limitation refers to the lack of access to some of the other organisations that formed part of the entire case study supply chain. Firstly, the focal organisation did not want their customers to participate in the research. Secondly, although the focal organisation was happy to involve all their suppliers in the research and provided their contact information, some of the suppliers were not willing to participate.

This study gives rise to avenue for future research, which concerns the replication of this study’s design into different contexts. For example, future research could further explore the impact of SCA practices on the economic and social context in which an organisation operates using case studies in different industries, in order to explore the potential of SCA to promote social and economic upgrading in Brazil on a macro level.

Finally, future research could be done exploring the role of accounting and of accountants in Brazil. The findings in this study suggest that the limited role of the accountants in the case study focal organisation was an impediment for the use of more sophisticated SCA practices. It would be interesting to conduct further research investigating whether a change in the institutions (rules and routines) around the role of accountants in Brazil could help the Brazilian industry to achieve increased competitiveness through the use of more sophisticated SCA practices. In terms of the role of accounting, by suggesting that SCA impacts upon the external economic environment, the findings in this study also imply that SCA could be used as a means for identifying what needs to be changed in order to improve competitiveness of the Brazilian industry. Thus, this study seems to have opened an avenue for addressing calls for research on the role of management accounting as a tool for identifying need for change (Hiebl, 2017).

11.4 Personal reflections: a journey towards becoming a researcher

This study is part of a wider ESRC funded project that investigates supply chain accounting and employment practices in emerging economies. Undertaking a PhD as part of a wider research project brings many opportunities, but it also comes with challenges. Being a team member of an ESRC project provided me with the opportunity to work with experienced researchers from an early stage in my academic career. I attended project meetings and participated in decisions related to the project such as timeline, project deliverables (academic publication plans and toolkit development). I fed suggestions into the survey questionnaires and interview protocols, and I played an active role in the sampling design and obtaining access to organisations within Brazil. I participated in dissemination workshops and symposium, playing a role as a facilitator in group discussions, taking notes for later compilation and chairing presentation sessions. I undertook research beyond my own case study and co-authored papers. For example, I played a significant role in the study undertaken in the automotive industry in Brazil. I obtained access to two automotive manufacturers through my own contacts, and I conducted interviews within these organisations. I later transcribed and translated the scripts and helped write-up findings. This study successfully resulted in a publication in *The International Journal of Human Resource Management* (see Dibben et al., 2016)

Nevertheless, doing a PhD as part of a wider research project also comes with challenges. For example, it can be challenging to take ownership of one's own PhD when it is part of a wider project. In my journey, for a period of time I thought that my PhD had to fit tightly within the overall aims of the ESRC project (as set out in the project's original proposal), and within the overall aim set out in my scholarship proposal. In other words, I was feeling constrained by the ESRC project's aims, and this was stopping me from developing my own ideas freely. For example, the overall aim set out in the PhD scholarship proposal was to 'promote better employment practices and gender equality through SCA'. However, as I progressed with my PhD studies, I realised that I wanted the main focus of my PhD to be around the aspect of the project which I was most passionate about: to explore the potential of SCA to promote both economic and social upgrading, particularly in Brazil. In other words, I wanted my main focus to be around accounting and development, rather than on employment practices and gender equality. Although this main focus slightly shifts away from the main focus set out in the initial PhD application, it still fits within the ESRC project's overall aims. I discussed this with my supervisors, and we agreed that I could align my PhD research objectives with my own aspirations. Thereafter, I took full ownership of my PhD and started developing my ideas freely.

Another crucial part of my PhD journey that helped me develop as a researcher was my presenting at conferences and attending research seminars throughout my PhD studies. Presenting at conferences allowed me to communicate my preliminary findings during initial stages of my data analysis which was extremely helpful for me owing not only to the valuable feedback that I received during my presentations, but also to the opportunity that these presentations gave me to make sense of my data. In order to communicate my findings, I had to elaborate my thoughts. Speaking is a way of thinking. Lastly, by attending these conferences I met exceptional academics in my field, who have inspired me to develop further as a scholar and to look forward to doing collaborative research. Moreover, meeting accomplished academics who have influenced practice and policies throughout their careers made me realise that it is possible to make a contribution through doing research.

Last but not least, an important part of my journey towards developing as a researcher was my undertaking an academic position at the end of the third year of my PhD studies. I undertook a full-time position as a Teaching Fellow at the University of Leicester and, after a year in this role, I have undertaken a position as a Lecturer (tenure track). My role as a Teaching Fellow involved not only teaching related activities, but also personal tutoring and undergraduate dissertation supervision. By supervising students throughout their research projects, I realised that I had become a researcher. I was apprehensive at first because I had to supervise students doing projects in different domain theories, in which I did not necessarily have an expertise. Throughout the process, I realised that in order to be a researcher I did not need to be an expert on all topics within management research, nor on all research methods (e.g. quantitative). Being a researcher requires an inquisitive mind, combined with an ethical approach to doing academically rigorous research. In my interaction with students, I have learned that everyone's journey towards producing a piece of research is different. This thesis is an account of my journey towards producing my PhD research. This is not the end, but rather the start of my journey towards becoming a scholar.

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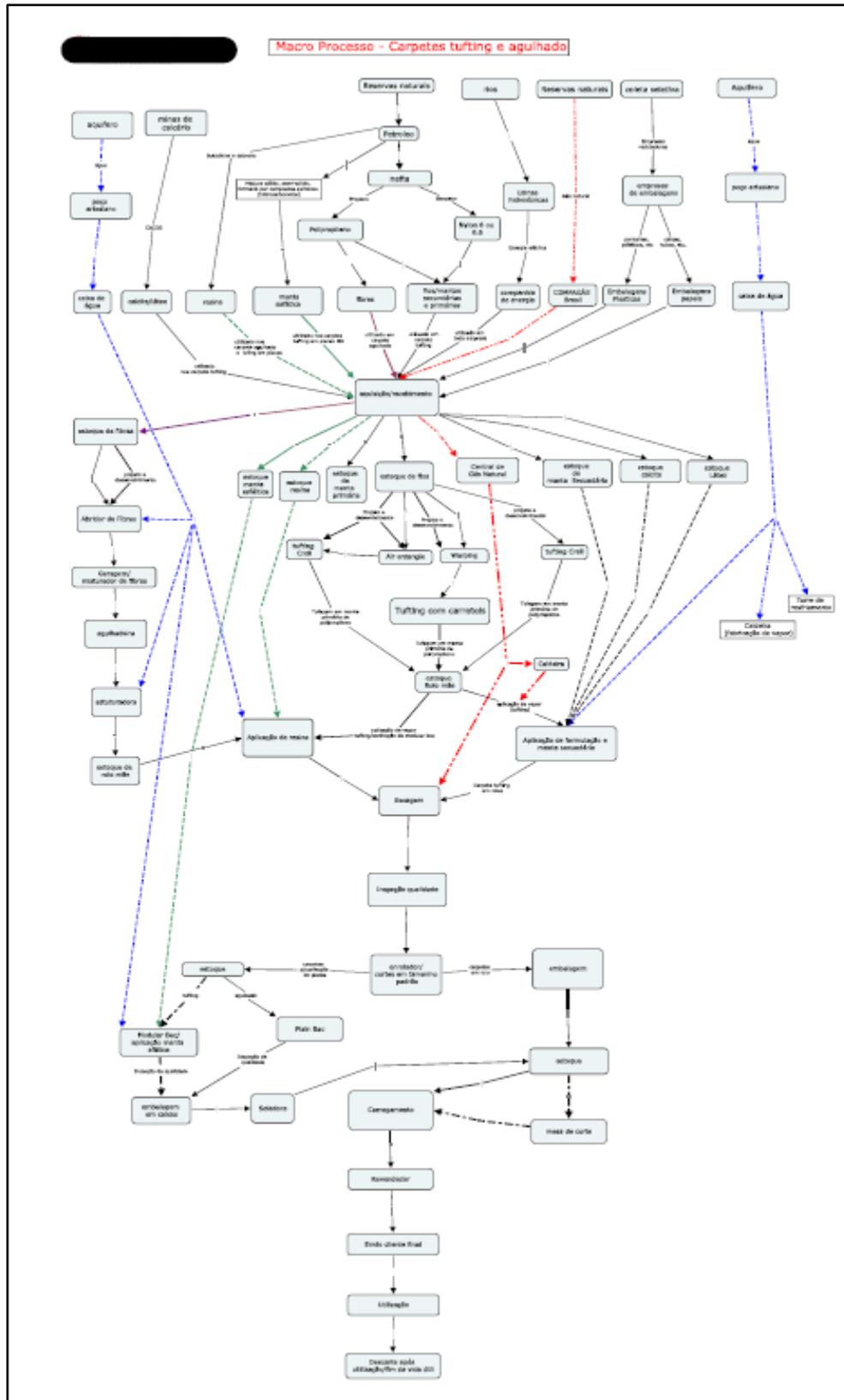
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APPENDIX I: LIST OF INTERVIEWS

Phase	Organisation	Interviewee's role	Length	Interview Code
1	CarpetCo	Accounting manager	01:17	CarpetCo_Acc
1	CarpetCo	Accountant		
1	CarpetCo	Supply chain manager	01:44	CarpetCo_SCM
1	CarpetCo	HR manager	01:55	CarpetCo_HRM
1	CarpetCo	Quality manager	01:29	CarpetCo_QM
1	CarpetCo	Industrial director	00:25	CarpetCo_IndDir
1	CarpetCo	Sales director	00:22	CarpetCo_SD
1	CalciteCo	CEO (Owner)	00:28	CalciteCo_CEO
1	TrUn	President	01:14	TradeUnion_Pres
2	YarnsCoEU	Sales manager	02:30	YarnsCoEU_SM
3	FedBR	CEO	00:34	FedBR_CEO
3	FedReg	Social affairs manager	01:17	FedReg_SaM
3	FedReg	Social affairs manager		
3	FedReg	Development manager	01:03	FedReg_DevM
3	FedReg	Social affairs consultant	01:03	FedReg_Cons
3	Edu	Course coordinator	00:16	Edu_GCM
3	Edu	Course coordinator	00:20	Edu_PCM
3	Edu	Course tutor	00:12	Edu_PCT
3	Bank	Business manager	00:59	Bank_BusM
3	CarpetCo	HR manager	00:28	CarpetCo_HRM_Fup
3	CarpetCo	Accountant	01:13	CarpetCo_Acc_Fup
3	CarpetCo	Supply chain manager	01:09	CarpetCo_SCM_Fup
3	CarpetCo	External trade coordinator	01:04	CarpetCo_Comex
3	CarpetCo	Sales coordinator	00:34	CarpetCo_SC
3	CarpetCo	Quality manager	00:57	CarpetCo_QM_Fup
3	CarpetCo	Finance director	01:26	CarpetCo_FinDir
3	CarpetCo	Accounting manager	00:43	CarpetCo_AccM_Fup
3	LatexCo	Business director	01:22	LatexCo_BusDir
3	BackCoJC	Sales manager	01:07	BackCoJC_SM
3	BackCoJC	HR manager	00:52	BackCoJC_HRM
3	FloorCo	Sales coordinator	01:10	FloorCo_SM
3	FloorCo	Sales supervisor		

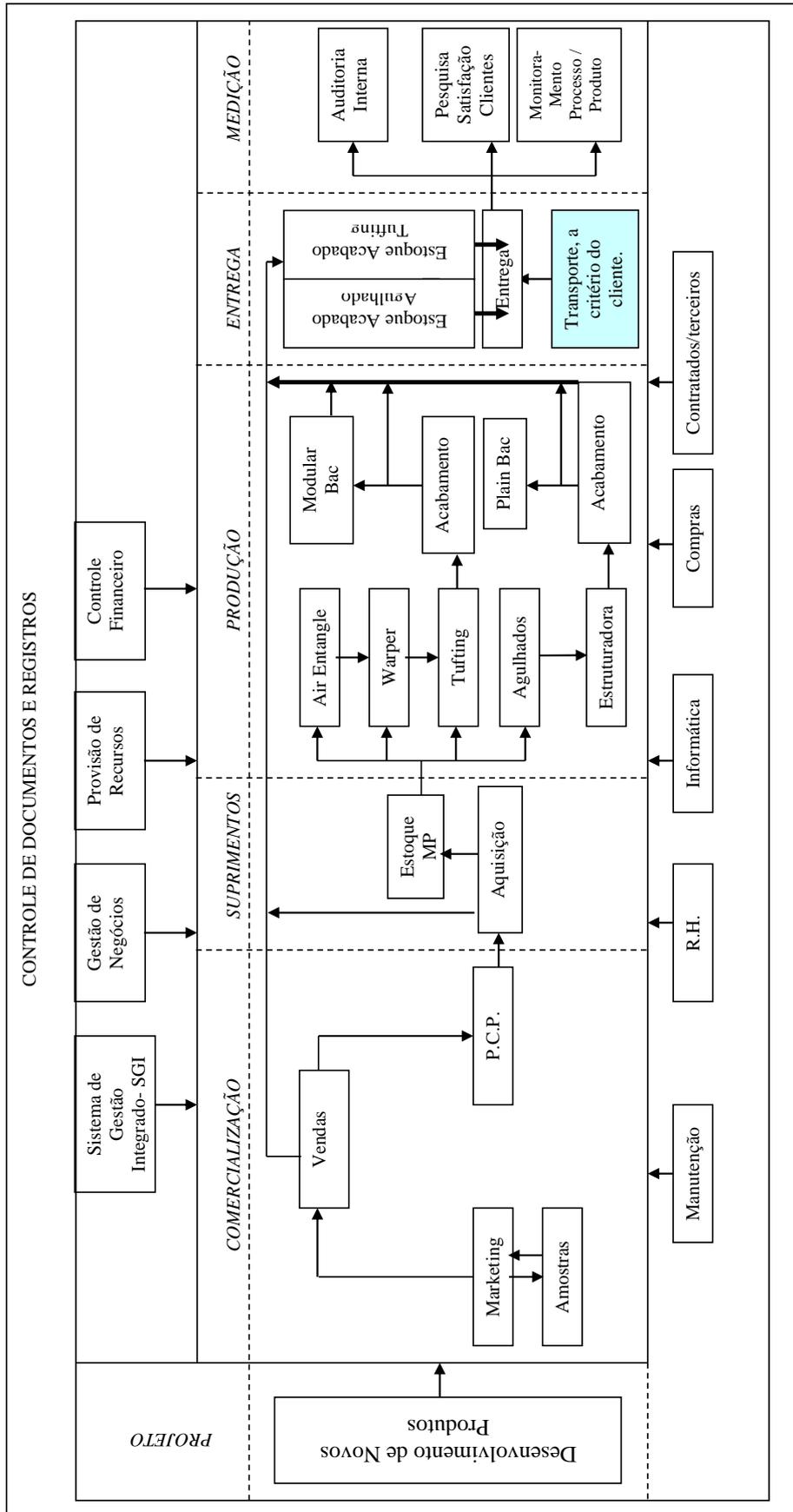
APPENDIX II: COMPANY DOCUMENTS



Company Document 1: Production process

ANEXO 1 – FLUXOGRAMA DE PROCESSOS

ANÁLISE CRÍTICA DO SISTEMA



Company Document 2: Internal documentation flows

[REDACTED]	QUESTIONÁRIO PARA HABILITAÇÃO DE FORNECEDOR	FOR - GA - 01
Razão Social:		
Produto:		
Contato:	E-mail:	Telefone:
CRITÉRIOS PARA HABILITAÇÃO		
Possui algum sistema de Gestão certificado?		
<input type="checkbox"/> SIM Qual:	<input type="checkbox"/> NÃO (Preencher questionário abaixo, atribuindo 2 pontos para cada resposta positiva)	
Órgão Certificador:		
1 - Possui algum sistema de controle de produção?	<input type="checkbox"/> SIM (descreva)	<input type="checkbox"/> NÃO
2 - Possui algum sistema de rastreabilidade do produto?	<input type="checkbox"/> SIM (descreva)	<input type="checkbox"/> NÃO
3 - Existe alguma sistemática de controle de produto não conforme?	<input type="checkbox"/> SIM (descreva)	<input type="checkbox"/> NÃO
4 - Sua empresa possui assistência técnica?	<input type="checkbox"/> SIM	<input type="checkbox"/> NÃO
5 - Os produtos são transportados em veículos rastreáveis?	<input type="checkbox"/> SIM	<input type="checkbox"/> NÃO
Defina sua capacidade Logística		
- Prazo mínimo de entrega: ----- horas		
- Capacidade produtiva diária: -----		
Comentários e informações adicionais que julgar necessário:		
<p>OBS: Junto a este questionário deve-se enviar cópia dos seguintes documentos: Certidão negativa de débitos INSS - FGTS- IBAMA e Municipal; Licença ambiental de Operação; declaração assinada pelo Executivo Sênior da Empresa quanto ao atendimento a regulamentos trabalhistas, anti-discriminatórios e de segurança</p>		
AVALIAÇÃO [REDACTED]		
1. Teste do produto:		
<input type="checkbox"/> Satisfatório	<input type="checkbox"/> Não Satisfatório	<input type="checkbox"/> Não Exigido
2. O fornecedor está:		
<input type="checkbox"/> HABILITADO	<input type="checkbox"/> NÃO HABILITADO	NOTA OBTIDA
Responsável pela avaliação: _____		
Data: _____	Função: _____	

Company Document 3: Supplier selection form

Avaliação de Prestadores de Serviços

FOR - GA - 04

Dados da Empresa

Nome de fantasia: _____

Razão Social: _____

Tipo de serviço: _____

Tempo de Atuação: _____

Nº de funcionários: _____

CNPJ: _____ Inscrição Estadual: _____

Endereço: _____

Cidade/UF: _____ CEP: _____

Telefone: _____ FAX: _____

Contato/Responsável: _____

E-mail: _____

Possui algum sistema de Gestão certificado? Não Sim - Qual _____

Qualificação/experiência dos funcionários _____

Estrutura: _____

Dispositivos de medição: _____

Manutenção/Calibração dos dispositivos _____

Referências (informar outros clientes): _____

A documentação necessária para a prestação do serviço foi entregue? Está atualizada?
 Sim Não- justifique _____

Qual o nível de conhecimento técnico exigido para a prestação do serviço?
 Alto Médio Baixo

Qual é a norma e/ou legislação atendida?
 Não aplicável Sim - qual _____

A empresa oferece prazos para pagamento?
 Sim Não

O prestador de serviços está:
 Habilitado Não habilitado

Responsável pela Avaliação: _____ Função: _____ Data: _____

Importante: O prestador de serviço deve enviar os registros/documentos necessários, sempre que preciso, junto a esse questionário.

Company Document 4: Contractor selection form

RACP RELATÓRIO DE AÇÃO CORRETIVA E PREVENTIVA		FOR - SGI - 15 Pág. 1/2
RACP RELATÓRIO DE AÇÃO CORRETIVA E PREVENTIVA		FOR - SGI - 15 Pág. 2/2
Evidências:		
Data verificação: _____		
Responsável verificação: _____		
ASS. Diretor (a)		
<input type="checkbox"/> Comercial <input type="checkbox"/> Industrial <input type="checkbox"/> ADM/Financeira		
Análise das causas		
Testes dos porquês		
1º por que: _____		
2º por que: _____		
3º por que: _____		
4º por que: _____		
5º por que: _____		
Causa fundamental: _____		
Data de emissão: _____ Nº: _____ Departamento emissor da RACP - _____ Setor da ocorrência - _____ Responsável pelo setor da ocorrência - _____		
Tipo de ação <input type="checkbox"/> Preventiva - Ação tomada para eliminar a causa potencial de uma não-conformidade ou outra situação potencialmente indesejável. <input type="checkbox"/> Corretiva - Ação tomada para eliminar a causa de uma não-conformidade identificada ou outra situação indesejável.		
Motivo <input type="checkbox"/> Resultados de Auditoria <input type="checkbox"/> Medição de processos <input type="checkbox"/> Resultados de análise dos Objetivos <input type="checkbox"/> Outros <input type="checkbox"/> Resultados reunião de análise crítica <input type="checkbox"/> Fornecedores		
Impacto <input type="checkbox"/> Qualidade <input type="checkbox"/> Meio Ambiente <input type="checkbox"/> Segurança		
Detalhes da NC Descreva o que aconteceu ou o que pode acontecer: _____		
Evidências: _____		
Preenchimento setor da ocorrência (Utilize o verso antes de preencher)		
Motivo/causa mais provável da NC ou possível NC: _____		
Ação de contenção/mediata: _____		
Ação proposta/plano de ação O que fazer? _____ Como? _____ Quando? _____ Quem? _____		
Verificação da ação (setor emissor RACP/ou SGI)		
Ação corretiva / preventiva eficaz? _____		

Company Document 6: Corrective and preventive action form