

**Identity matters: exploring supply chain
sustainability with a social identity perspective**

Submitted by Yu Huang to the University of Exeter

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ABSTRACT

Relationship management plays a critical role in sustainable supply chain management (SCM). The literature focuses on the operational and strategic levels of inter-organisational relationships in supply chains, where little is known about the psychological aspect of these relationships. Adopting social identity theory as the key theoretical lens, this research investigates inter-organisational relationships in the context of sustainability implementation in supply chains. Two research questions are asked: RQ1 How do focal organisations engage their supply chain stakeholders in sustainable SCM using social identity thinking? RQ2 What are the specific identity issues relating to inter-organisational relationships in a sustainability context? This research adopts an exploratory case approach and combines multiple data sources: semi-structured interviews, participant observation, and secondary data analysis. Three case studies are conducted in three international organisations and their suppliers in a global setting.

The research findings reveal that organisations face the challenge of managing multiple identities during their sustainability implementation in supply chains. Subject to their operational context and supply chain characteristics, organisations may have different approaches to sustainability implementation. Sustainability identity is associated with internal stakeholders' motivation and proactivity when contacting external stakeholders, as well as external stakeholders' commitment to cooperation and information sharing in sustainable supply. Analysis of the 41 interviews reveals that both the internal and external stakeholders play an important role in identity formation through various identity assessment and comparison activities. The key identity issues observed during sustainable supply practices include identity conflicts, inconsistencies, and disagreements among the stakeholders.

The current SCM literature focuses on supply chains as one uniform identity. A major contribution of this research is that it addresses the complexity of identity issues in supply chains, especially in the context of sustainability implementation. It also contributes to theory by defining a typology of focal organisations' identity regulation approaches.

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ABBREVIATIONS

BIO	Big international organisation
CSR	Corporate social responsibility
IO1	International Organisational 1
IO2	International Organisational 2
IO3	International Organisational 3
MNCs	Multinational companies
NGOs	Non-profits organisations
SCM	Supply chain management

CHAPTER 1: INTRODUCTION

This thesis examines sustainability in an organisational and supply chain setting where social identity is observed to affect the inter-organisational relationships during the sustainability implementation process. Sustainable supply chain management (sustainable SCM) is “the strategic, transparent integration and achievement of an organisation’s social, environmental and economic goals in the systematic coordination of key inter-organisational business processes for improving the long-term economic performance of the individual company and its supply chains” (Carter & Rogers, 2008: 368). In line with this definition, a large body of academic research (for example, Carter & Rogers, 2008; Matos & Silvestre, 2013; Miemczyk et al., 2012; Nielsen & Thomsen, 2011; Seuring & Müller, 2008a) recognises the importance of relationship management in sustainable SCM. Inter-organisational collaboration is regarded as a crucial source of competitive advantage (Gold et al., 2012), thus a key factor in the success of sustainable SCM (Beske et al., 2014; Brammer et al., 2011; Jaegler & Sarkis, 2014).

Despite the importance of inter-organisational relationships in sustainable SCM, there are considerable research opportunities on this topic. The existing literature focuses on operational, financial, and strategic aspects of inter-organisational relationships. Yet researchers in both SCM and inter-organisational relationships fields know little about the psychological dynamics of complex inter-organisational relationships (Luvison & Cummings, 2015; Schruijer, 2008). Schruijer (2008) argues that psychological factors such as distrust, negative attitudes, poor communications, and stereotyping are often regarded as characteristics of or even as the cause of failure of inter-organisational relationships. Therefore, she suggests that theories in psychology may bring new insights in providing an understanding and handling these factors. Similarly, some researchers suggest that there are opportunities for research from the perspectives of psychology and organisational science to understand sustainability implementation in supply chains (Ketchen & Hult, 2011; Preuss & Walker, 2011; Sarkis et al., 2011; Walker et al., 2012; Walker et al., 2014; Winter & Knemeyer, 2013). In response to this opportunity, this research employs a theoretical lens of social identity theory, a theory in social and organisational psychology, to explore inter-organisational relationships in sustainable SCM.

Social identity theory specifically focuses the role of group categories and identities in understandings of intergroup relations. The research examines large-scale international institutions who initiate sustainability implementation in their supply chains.

This chapter supplies an overall introduction to this research. Section 1.1 provides the research context, explaining why the social identity approach has been chosen to look at inter-organisational relationships in sustainable SCM, and why large international institutions have been chosen as the research participants. Section 1.2 defines the research aims and objectives. Section 1.3 describes the structure of the thesis.

1.1 Research context

This research is inspired by two theoretical observations and one contextual observation. The first theoretical observation is the trend of and needs for theory building and new theoretical lenses in sustainable SCM (Carter et al., 2011; Touboulic & Walker, 2015a; Walker et al., 2012; Walker et al., 2014). There are research opportunities for bringing additional knowledge from social science disciplines to support a more holistic examination of sustainable SCM (Min & Kim, 2012; Winter & Knemeyer, 2013). In detail, the recent literature reviews in sustainable SCM (for instance, Alexander et al., 2014; Carter & Easton, 2011, Carter & Rogers, 2008; Hassini et al., 2012; Miemczyk et al., 2012; Seuring & Müller, 2008a; Tachizawaza & Wong, 2013; Touboulic & Walker, 2015a) show that the field is gaining maturity (Touboulic & Walker, 2015a). However, the research on sustainability in supply chains is still in its early stage (Touboulic & Walker, 2015a). Seuring (2011: 481) argues that the literature in sustainable SCM stays at “a general level,” implying that there is considerable more work to be done in establishing the details around sustainability adoption, implementation and how firms change. In their systematic literature review on theories in sustainable SCM, Touboulic and Walker (2015a) argue that theory-building efforts in sustainable SCM remain scarce, with the following theories as the dominant theoretical lenses in sustainable SCM research: resource-based view, stakeholder theory, institutional theory, and transaction cost theory.

In response to the observation of Seuring (2011), Sarkis et al. (2011) argue that the research on sustainable SCM should move from being content to process

based, and the further development of the research in this field requires that “new knowledge and insights be generated” (Sarkis et al., 2011: 2). Similarly, Carter and Easton (2011) appeal for the application of a wider range of theories. More specifically, some researchers (for instance, Sarkis et al., 2011; Shub & Stonebraker, 2009; Touboulic & Walker, 2015a; Touboulic & Walker, 2015b) highlight the importance of human impacts on sustainable SCM. They call for the attention of SCM researchers to be directed towards the “soft” areas of integration and performance of supply chains. The above literature indicates there is a need to look at the whole process of sustainability implementation in supply chains, and especially focusing on the human impacts on supply chains.

Another theoretical observation is the theoretical gaps in relationship management in sustainable SCM. Relationship management plays a critical role in supply chain management (Christopher, 2005; Cooper et al., 1997; Handfield et al., 1999; Lambert et al., 1998), especially in the context of sustainability implementation (Beske et al., 2014; Brammer et al., 2011; Gold et al., 2010; Jaegler & Sarkis, 2014). As Nielson and Thomsen (2010: 1) put it, “issues of sustainability, including corporate social responsibility (van Marrewijk, 2003), and related concepts are often defined as a process by which corporations manage their relationship with stakeholders”. Despite the importance of inter-organisational relationships in sustainable SCM, the research on this topic is at an early stage. One of the research opportunities is to explore the psychological level of inter-organisational relationships in sustainable SCM. In detail, several psychological factors are considered as key factors influencing stakeholder engagement in sustainable SCM: attitudes towards sustainability (Linton et al., 2007); communications (Seuring & Müller, 2008a); trust (Sharfman et al., 2009); commitment (Ageron et al., 2012; Pagell & Wu, 2008; Walker et al., 2008), and perception of the supply chain stakeholders (Touboulic & Walker, 2015a). However, little is known why an organisation trusts or distrusts another (Bachmann & Zaheer, 2008; Saunders et al., 2014) and what influences stakeholders’ perceptions and commitment to inter-organisational relationships that they are involved in. Recognizing this knowledge gap, some researchers appeal for a deeper understanding of the underlying behavioural and human issues in inter-organisational relationships in sustainable SCM (for example, Ketchen & Hult, 2011; Sarkis et al., 2011; Walker et al., 2012; Touboulic & Walker,

2015a; Touboulic & Walker, 2015b). Schrujje (in Cropper et al., 2008: 417) suggests “in view of the frequency with which distrust, negative attitudes, poor communications, and stereotyping are seen as characteristics of or even as the cause of failure of inter-organisational relations, psychology can be expected to provide a promising perspective for understanding, handling or even preventing such dynamics.”

Based on the above observations, this research explores inter-organisational relationships in the context of sustainable SCM and their impacts on the sustainability implementation in supply chains. The exploration of these questions is conducted through the lens of social identity theory which has been widely used to look at inter-group relations (Tajfel, 2010; Tajfel & Turner, 1979; Turner, 1987); organisational behaviours (Ashforth & Mael, 1989; Hogg & Terry, 2000; Haslam, 2004) and inter-organisational relationships (Berger et al., 2006; Corsten et al., 2011; Peyinghaus, 2004; Poppo et al., 2008).

Social identity theory is chosen as the key theoretical lens for the following reasons. First, social identity theory studies group processes and intergroup relations where supply chains consist of different groups (either in the form of individual business functions or individual organisations, and there also exist formal and informal groups). Most importantly, the essence of SCM is to integrate business processes and manage multiple relationships within supply chains (Christopher, 1998; Cooper et al., 1997; Harland, 1996; Handfield & Nichols, 1999; Lambert et al., 1998; Seuring & Müller, 2008b). A theory focusing on the understandings of intergroup relationships may provide new insights into understanding the supply chain relationships and their dynamics. One may question whether the term “group” simply equates to the term “organisation” and a theory focusing on inter-group relationships can explain inter-organisational relationships sufficiently. In response to this doubt, Schrujje (2002, 2008) and Vansina et al. (1998) argue that inter-organisational relationships may involve comparable psychological processes to inter-group relationships. This argument is supported by experiments on the forming and maintaining of relationships with different organisations (Schrujje, 2002; Vansina et al., 1998). Schrujje (2008: 435) argues that a group can be conceived as a micro-organisation, and that “the value of social psychological research into the dynamics of intergroup relations is that it simplifies the complexity of inter-organisations, exposing fundamental

psychological processes.” She also suggests that in order to overcome the shortcoming brought about by this simplification, there is a need for study real organisations and their interactions. This research studies real organisations (large-scale international institutions and their supply chain stakeholders). Hence, the theoretical findings in inter-group relationships can be tested and refined in real organisational contexts.

1.2 Aims and objectives

With the theoretical lens of social identity theory, this research has two objectives: 1) to understand how focal organisations manage their inter-organisational relations and engage with their supply chain stakeholders during sustainable SCM; 2) to explore the role played by social identity factors during focal organisations’ sustainable SCM practices. Figure 1 demonstrates that the scope of the research covers how supply chain stakeholders interact with each other, in the context that focal organisations initiate sustainability efforts in their supply chains, through the theoretical lens of social identity theory. The research focuses on the inter-organisational level rather than solely the focal organisation level. This helps to define a clear scope and focus of the research, and reflects the importance of inter-organisational relations and their potential impacts on supply chain performance in SCM (Christopher, 2005; Cooper et al., 1997; Handfield et al., 1999; Harland, 1996; Lambert et al., 1998), especially in sustainable SCM (Nielsen & Thomsen, 2011; Seuring & Müller, 2008a).

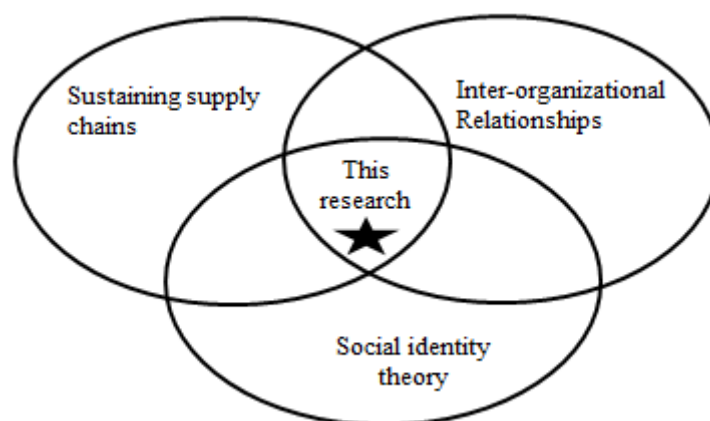


Figure 1 Research scope

The subjects of this research are large-scale international institutions in the public sector. Specifically, the research focuses on their experiences in inter-organisational relations with their supply chain stakeholders during their

sustainability implementation in supply chains. The choice of the research participants considers several critical criteria in case selection in sustainable SCM research: geographic consideration, industries and sizes of the organisations, and supply chain stages. First, Jaegler and Sarkis (2014) argue that there is a need to investigate sustainability in various social, cultural, political, and economic regimes. They also argue that organisations in developing countries take a larger and more visible role in comparison to those in developed countries. In comparison to developed countries, sustainable SCM in developing countries is under-explored (Jaegler & Sarkis, 2014; Meyer, 2007). Second, Pagell and Wu (2009) argue that all the industries need to become sustainable. They suggest that a theoretical sampling approach across multiple industries can help researchers develop propositions and theory that can be generalisable to a wide range of organisations. Third, regarding the size of the case organisations, different researchers have different views. Pagell (2004) finds that large organisations are more likely to adopt sustainable practices. Sharma and Henriques (2005) argue that small organisations can potentially create competitive advantages by taking innovation in sustainable product designs or business models. Lastly, Seuring (2008a) argues that social and environmental issues often occur in early stages of a supply chain. Therefore, he emphasises studying more than one stage in a supply chain.

The focal organisations in this research are large-scale international institutions which have procurement offices and suppliers globally. These organisations procure both services and products from suppliers with different sizes in various industries. Therefore, the data from these cases reflect the sustainable SCM practices in multiple industries in both developing and developed countries. Meanwhile, these organisations are known to be adopting sustainable policies both internally as well as working with a wide range of stakeholders (e.g. firms in the private sectors, NGOs, and governments). Their involvement of stakeholders at multiple supply chain stages offers the potential to investigate various types of inter-organisational relations in sustainable SCM. Notably, organisations' identity process is influenced by their internal and external stakeholders (Albert et al., 2000). The large sizes, the complex supply chain structures, and multiple stakeholder involvements of these organisations provide data richness and help

the researcher to investigate social identity issues in sustainable SCM from a different perspective.

The unit of analysis is the inter-organisational relations during the sustainability implementation of large international institutions in their supply chains. Since sustainable SCM requires relationships with the broader social and natural environments (Shrivastava, 1994), and a might include some non-traditional supply chain members (Seuring, 2004, 2008), the inter-organisational relations in this research might cover any potential members in the supply net of these organisations, as long as they are involved in the sustainability projects initiated by the focal organisations being studied. Section 3.2.3 provides a detailed review of levels of analysis in the fields of supply chain management and inter-organisational relations. Section 3.3.3 provides the justification why the unit of analysis has been chosen. Section 1.3 now presents the structure of this thesis.

1.3 Thesis structure

Figure 2 summarises the thesis structure. This thesis adopts a general seven-step pattern of the thesis. These seven stages reflect the seven chapters in this thesis. There are two key considerations for choosing this structure: 1) the consequences of the project stages; 2) the reflection on the earlier responsive stages. The symmetry mirrors the introduction with conclusions, literature review with reflection, and method with analysis. Findings are positioned at the centre of this thesis. This structure enables the researcher to have a total picture of this research. A brief introduction to each chapter is given as below.

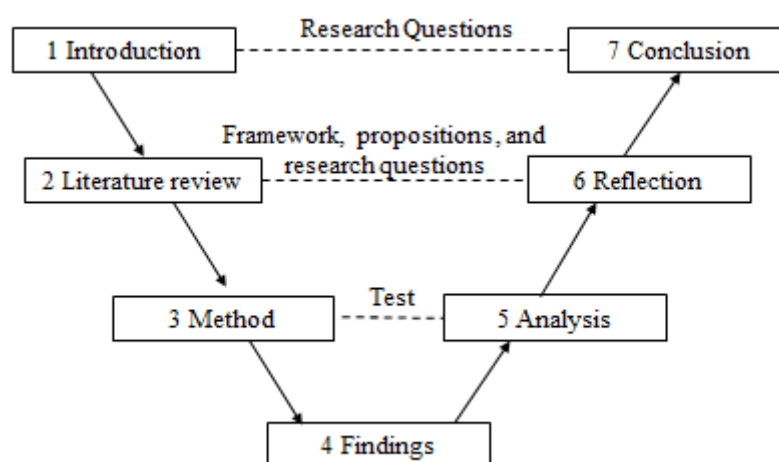


Figure 2 The thesis structure

Chapter 1 Introduction - Chapter 1 supplies an overall introduction to this research. It explains the research context, defines research aims and objectives and introduces the thesis structure.

Chapter 2 Literature Review - Chapter 2 reviews the literature on supply chain inter-organisational relations and identity issues in the context of sustainable SCM. It also discusses the level of analysis based on the existing literature. Based on the identified literature gap, this chapter presents the conceptual framework, research questions, and propositions.

Chapter 3 Research Methods - Chapter 3 begins with a classification of the researcher's philosophical stances. Then the discussion moves on to the research strategy and the detailed design of this research. In the section of research design, the preliminary study is presented briefly to support the justification for the research design.

Chapter 4 Findings - This chapter presents the results of the case studies with three international organisations and their suppliers. With the data from interviews and reviews on secondary data (documents, publications, and website information), these cases describe the process of the focal organisations' identity communication and management, as well as provide insights into the identity factors and their impacts of these on sustainable SCM.

Chapter 5 Analysis - Chapter 5 conducts a cross-case analysis to explore and compare the findings of the three cases. This chapter understands inter-organisational relations in the context of sustainable SCM, with the theoretical lens of social identity theory. With an identity management typology, this chapter classifies focal organisations' identity communication and management approaches in the context of sustainable SCM. This chapter also classifies the responses of internal and external stakeholders to focal organisations' identity management. The chapter concludes with a summary and a revised conceptual framework.

Chapter 6 Reflection - Chapter 6 provides reflection on the research findings by revisiting the propositions, the research questions, and the conceptual framework. This chapter concludes by examining the implications of whether the identity

issues have impacts on organisation's sustainability implementation and the relative supply chain relationships in the context of sustainable SCM.

Chapter 7 Conclusion - Chapter 7 discusses the contribution of this research. It presents the theoretical and practical implications, discusses the limitations of this research, and ends with the recommendations for future research directions.

CHAPTER 2: LITERATURE REVIEW

The aim of the literature review is to prepare a theoretical basis for this research. This chapter is structured as follows: Section 2.1 reviews the (sustainable) SCM literature related to inter-organisational relations. Section 2.2 provides an introduction to social identity theory and discusses the new insights that the social identity approach can bring into the inter-organisational relations. Section 2.3 reviews the literature applying social identity theory in the SCM and sustainability fields and identifies the theoretical gap. Lastly, Section 2.4 summarises the literature review by synthesising the literature, providing a conceptual framework, defining the research questions, and proposing propositions.

2.1 Inter-organisational relations and (sustainable) SCM

Section 2.1 discusses the overlapping area of sustainable SCM and inter-organisational relations, which is indicated in Figure 3. Section 2.1.1 and 2.1.2 review the importance of inter-organisational relations in SCM, especially sustainable SCM. Section 2.1.3 discusses the complexity of inter-organisational relationships in (sustainable) SCM. Sections 2.1.4, 2.1.5, and 2.1.6 discuss the antecedents to, processes of, and outcomes of inter-organisational relations in supply chains. Section 2.1.7 defines the literature gaps and research opportunities.

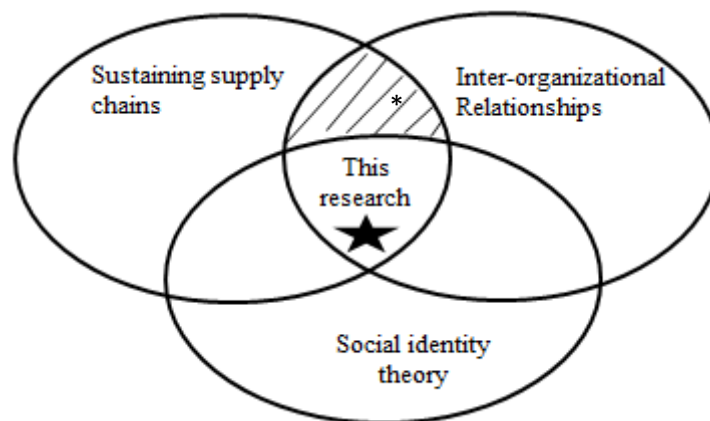


Figure 3 The research scope: inter-organisational relations and sustainable SCM
* The shaded area indicates the relevant section of the thesis

2.1.1 Relationship management: the essence of (sustainable) SCM

Christopher (2005: 18) defines SCM as “the management of upstream and downstream relationships with suppliers and customers to deliver superior customer value at less cost to the supply chain as a whole.” Similarly, many

researchers (for instance, Cooper et al., 1997; Handfield & Nichols, 1999; Harland, 1996; Lambert et al., 1998; Seuring & Müller, 2008b) argue that SCM represents a philosophy for integrating all activities in the life of a product/service and a new approach to managing the business and relationships with other members of supply chains. Mentzer et al. (2000: 550) simply put it thus: “supply chain management is the management of close inter-firm relationships.” Lambert and Cooper (2000) further point out that a company’s ultimate success depends heavily on its ability to integrate the intricate network of business relationships within its supply chain. According to Christopher’s (2005) definition of SCM and the above mentioned fundamental SCM studies, the essence of SCM is the management of multiple relationships and business integration across the supply chain. This observation on the essence of supply chain management has been evidenced by the systematic literature conducted by Stock and Boyer (2009). Their analysis of 174 definitions of supply chain management revealed that 123 (70%) of these definitions regarded SCM as “a method of managing a system of interrelationships” (Stock & Boyer, 2009: 703).

The concept of sustainable SCM is developed by adopting and extending the concept of SCM and adding the element of sustainability (Carter & Rogers, 2008; Teuteberg & Wittstruck, 2010). Carter and Rogers (2008: 368) define sustainable SCM as “the strategic, transparent integration and achievement of an organisation’s social, environmental and economic goals in the systematic coordination of key inter-organisational business processes for improving the long-term economic performance of the individual company and its supply chains.” This definition is based on the definition of SCM by Lambert et al. (2006), the triple bottom line of sustainability (Elkington, 1998; 2009), and the four supporting facets of sustainability, namely strategy, risk management, organisational culture, and transparency (Elkington, 1998; Gladwin et al., 1995; Henriques & Richardson, 2004; Jennings & Zandbergen, 1995; Sarkis, 2001; Savitz & Weber, 2006; Srivastava, 1995a; Srivastava, 1995b). According to Carter and Rogers’ (2008) definition of sustainable SCM, business integration and relationship management within supply chains remain important roles in sustainable SCM. In detail, sustainability is regarded as part of the integrated strategy of the organisation, whereas transparency is closely associated with stakeholder engagement and supplier Operations (Carter & Rogers, 2008).

2.1.2 Importance of inter-organisational relations in (sustainable) SCM

Anand and Khanna (2000) realise that management of inter-organisational relations is of strategic importance in SCM. Their observation is supported by various researchers, who discuss the benefits brought by effective inter-organisational relationship management 1) learning and gaining new knowledge (Lamming, 1993; Li et al., 2006; Mowery et al., 1996), gaining sustainable capabilities through learning (Bessant et al., 2003; Harland et al., 2004), and facilitating innovation through inter-organisational learning (Bessant et al., 1993; Lamming et al., 1993); 2) new product development (Kotabe & Swan, 1995; Pero et al., 2010; Petersen et al., 2005); 3) improving operational performance through coordination (Deyer & Singh, 1998; Doz & Hamel, 1998; Flynn et al., 2010; Johnston et al., 2004; Lambert, 2008; Naude & Buttle, 2000); and 4) improving financial performance (Barnett & Salomon, 2011; Baum et al., 2000; Elgazzar et al., 2011; Rowley et al., 2000; Zaheer & Zaheer, 1997).

In the field of sustainable SCM, Gold et al. (2010) regard sustainable SCM as a catalyst for generating valuable inter-organisational resources and possible sustained inter-organisational competitive advantage through collaboration on sustainability issues. Hence, they highlight the importance of collaboration in supply relationships, claiming inter-organisational collaboration as a crucial source of competitive advantage. In line with their emphasis on collaboration in sustainable SCM, a number of researchers propose that collaboration is one of the key factors in the success of sustainable SCM (for example, Beske et al., 2014; Brammer et al., 2011; Jaegler & Sarkis, 2014). Notably, sustainability and relationship management have a reciprocal relationship. On one hand, relationship management is critical to sustainability issues (Matos & Silvestre, 2013; Nielsen & Thomsen, 2011). On the other hand, sustainable SCM has impacts on the supply chain relationships by creating new rules (Ford & Mouzas, 2010; Oruezabal & Rico, 2012; Veal & Mouzas, 2011). Despite the importance and benefits of relationship management in (sustainable) SCM, it is challenging to manage the inter-organisational relations in supply chains, especially in the context of sustainability implementation. Section 2.1.3 now deals with the challenges in inter-organisational relations management in (sustainable) SCM, considering the dynamics and complexity involved in this process.

2.1.3 Complexity of inter-organisational relations in (sustainable) SCM

Many researchers emphasise the importance of coordination, cooperation, and collaboration among the members of supply chains (for example, Christopher, 1992, 1998, 2005; Min & Mentzer, 2004; Min et al., 2008; Spekman et al., 1998). A supply chain should be regarded as a single entity with a shared goal of synchronising supply chain activities throughout the supply chain (Christopher, 1992; Min & Mentzer 2004; Min et al., 2008). Christopher (2005) more explicitly points out that it is the fact that supply chains compete with each other not the individual companies.

However, supply relationships are complex and dynamic (Pfeffer, 1997) because of the following reasons: 1) complexity of inter-organisational relations in supply chains; 2) increased number of linkages to be managed; 3) increased difficulty in communicating common goals; 4) insecurity of individual organisations caused by increased dependence; and 5) loss of the cultural distinctiveness of individual organisations (McAdam & McCormack, 2001).

Recognising the dynamics and complexity of supply chain relationships, some researchers argue that inter-organisational relationship is a developmental process (for instance, Cropper & Palmer, 2008; Ring & Van de Ven, 1994). They argue that inter-organisational relations may emerge, grow, and dissolve over time. Meanwhile, these relationships consist of repeated phases of negotiations, commitments, agreement execution, and assessment. Acknowledging the complexity of supply chain relationships, Fynes et al. (2005) argue that the process of forming and developing supply relationships requires various relational competencies, such as negotiation skills, conflict management, anticipating problems, and joint problem solving.

In comparison to the inter-organisational relations in traditional supply chains, there is increased complexity in the inter-organisational relations in the context of sustainability implementation in supply chains. There are two factors that increase the complexity of business integration and relations in sustainable SCM. First, the quest for sustainability is the key driver for innovation in the supply chain and brings changes to the supply chain (Biondi et al., 2002; Day, 1998; Smith et al., 2010). Creating a sustainable supply chain requires reconceptualizing the supply chain and changing managerial cognitions, arguably a type of innovation

(Pagell & Wu, 2009). In addition, the ecocentric view suggests that organisations need to consider relationships with the broader social and natural environments (Shrivastava, 1994). Hence, sustainable SCM might involve some members that traditional chains neglected or excluded, like non-profit organisations and even competitors (Seuring, 2004). With the changes and innovations driven by sustainable efforts in supply chains, organisations in supply chains face information uncertainty and changing decision boundaries when making decisions about sustainable practices (Matos & Hall, 2007; Wu & Pagell, 2011). Thus, shifting from SCM to sustainable SCM drives organisations to rethink their relationship management strategies significantly so as to accommodate changes in the business landscape driven by sustainability practices (Pagell et al., 2010; Touboulic & Walker, 2015a; Touboulic & Walker, 2015 b). Second, sustainable efforts may not necessarily bring immediate cost savings. Some even result in cost increases, especially within a short term (Wu & Pagell, 2011). The risks associated with the sustainable efforts increase uncertainty and challenges in supply chain relationships.

In consideration of the complexity and dynamics of inter-organisational relations in sustainable SCM, some researchers argue that sustainable SCM require a far more cooperative approach (Seuring & Müller, 2008a, 2008b; Sharfman et al., 2009) and more extended communications than traditional supply chains (Goldbach et al., 2003; Kogg, 2003; Meyer & Hohmann, 2000; Pesonen, 2001; Seuring, 2001, 2004, 2011). This argument is convincingly supported by the expert survey conducted by Seuring and Müller (2008b). This survey shows that the most frequent topic of sustainable SCM is the cooperation and communication among supply chain members. The importance of cooperation and communication is reflected in the 2050 vision of World Business Council for Sustainable Development (<http://www.wbcsd.org/>), which suggests that in sustainability implementation, "...swift, radical and coordinated actions are required at many levels, by multiple partners" (2011: 16). Notably, like inter-organisational relations in the traditional supply chains, there is no one single type of relationship that is suitable or necessary for all situations in sustainable supply chains. Some researchers highlight the need for understanding the degree of collaboration in sustainable SCM (Hall, 2000; Matopoulos et al., 2007). Sections

2.1.4, 2.15 and 2.1.6 now discuss the antecedents to, processes of, and outcomes of inter-organisational relations in supply chains.

2.1.4 Antecedents to inter-organisational relationships in supply chains

Researchers define several key antecedents to inter-organisational relations in supply chains: power, interdependence, organisational compatibility, trust, commitment, and sharing. The details of these antecedents are introduced below.

Power and interdependence

Huxham & Beech (2008) regard power as the ability to influence, control, or resist the activities of other members in inter-organisational relations. They argue that power is a central issue in inter-organisational settings. More specially, power in inter-organisational relations is the source to influence others, reach agreements, and achieve collaborative activities and output. Hence, power is related to the process and outcome of inter-organisational relations (Gray, 1989; Hardy & Phillips, 1998; Newman 1998; Medcof, 2001; Oliver, 1990). French and Raven (1959) classify five resources of power: reward power, coercive power, expert power, referent power and legitimate power. Darpiran and Hogarth-Scott (2003) discover that reward and coercive power lead to the desire of parties with less power to exit relationships. They argue that referent and expert power lead to stakeholders' trust and cooperation in inter-organisational relations. Huxman and Beech (2008) classify the power resources into macro and micro levels. Macro-power can derive from resources, relative importance, and structural considerations. They emphasise the importance of micro-power, which is based on day-to-day relationships and activities, and can be enacted during the discussions and execution of joint actions among members in inter-organisational relations.

The theoretical root of power research in inter-organisational relations is resource dependence theory (Pfeffer & Salancik, 1978), which focuses on the interdependence of an organisation with other organisations in its business environment. Resource dependence theory views the building of collaborative relationships as a response to an imbalance in resource power among organisations (Casciaro & Piskorski, 2005; Pfeffer & Salancik, 1978). Interdependence can have both positive and negative impacts on supply

relationships. On one hand, interdependence among supply chain members can strengthen specialised supply network and business integration (Dyer, 1996); on the other hand, over-interdependency may increase switch costs and decrease autonomy of individual organisations in supply chains (Spekman et al., 1998).

Some SCM researchers propose that power dynamics is crucial to understanding supply chain relationships (for example, Benton & Maloni, 2005; Cox, 2004; Meehan & Wright, 2012, Terpend & Ashenbaum, 2012; Touboulic et al., 2014). In detail, power affects various aspects of supply chain relationships including trust, levels of conflict, collaboration, commitment, and satisfaction (Terpend & Ashenbaum, 2012; Touboulic et al., 2014). In terms of sustainable SCM, Simpson and Power (2005) identify power as a mechanism for compliance-based relationships. They argue that trust is a mechanism for collaboration in supply chains. Touboulic et al. (2014) suggest that power is crucial for organisations in understanding compliance in supply chains and identifying appropriate relationship management strategies in sustainable SCM. They argue that power notably influences focal organisations' relationship management in sustainable SCM and the sharing of sustainability-related risks and value among supply chain shareholders (Simpson & Power, 2005). The sustainable SCM literature focuses on the importance of interdependence, reward power, coercive power and legitimate power. Therefore, there are opportunities to explore the roles of expert power (French & Raven, 1959), referent power and micro-level power, which exists in daily business contacts (Huxman & Beech, 2008)

Fit/compatibility

Organisational fit has two dimensions: complementarity and compatibility between the partners (Harrigan, 1988). Greater complementarity might occur when there is low similarity (in core businesses or capabilities) among the organisations involved in inter-organisational relations (Mowery et al., 1996). Complementarity enables organisations to bring different but valuable capabilities into inter-organisational relations and increases the potential for inter-organisational learning (Kale et al., 2001). Compatibility of organisations refers to the similarity among organisations, which can be indicated by the following aspects: operating strategy, corporate cultures, management styles and nationality (Parkhe, 1993). Compatibility is a crucial factor in the success of inter-

organisational relations (Kale et al., 2001). It fosters the relational capital among the organisations, enables sharing and exchange among them (De la Sierra, 1995; Kale et al., 2001). Cousins et al. (2006: 583) define supply chain relational capital as “the configuration and social structure of the group through which resources are accessed”. They suggest that relational capital can be assessed by the level of trust, commitment, communication and sharing between the partnering parties.

Some researchers highlight the importance of organisational fit among organisations in inter-organisational relations (for instance, Harrigan, 1988; Kale et al., 2000; Sarkar et al., 2001). Organisational compatibility has indirect impacts on the performance of supply chain relationships (Lane et al., 2001; Sarkar et al., 2001). In detail, organisational compatibility 1) allows organisations to align strategically with their supply chain stakeholders so as to benefit from knowledge flows and capability development (Dyer & Singh, 1998; Grzybowska et al., 2014); 2) influences inter-organisational capacity building, which in turn shapes relational benefits (Saenz et al., 2014); 3) identifies the degree of shared norms and values, thus the probability of achieving strategic alignment among supply chain stakeholders (Cheung et al., 2010); 4) helps partners exchange information openly and capitalize on the knowledge-sharing potential (Saenz et al., 2014). In addition, compatibility in organisational cultures facilitates coordinated actions (Lane et al., 2001). Considering the impacts of organisational compatibility on different aspects of inter-organisational relations, Grzybowska et al. (2014) identify organisational compatibility as one of the key enablers for collaboration in sustainable SCM.

Trust

Trust in inter-organisational relations refers to the perception of an organisation about the extent to which other organisations in the relationships fulfil the agreements and meet the expected professional obligations (Sako & Helper, 1998; Vasquez, 2011). Supply chain relationships often involve a high interdependence among supply chain members, even competitors (Dubois et al., 2004). Organisations in the supply chain may have different interests and goals (Beth et al., 2003). Therefore, trust has been identified as a crucial relational mechanism for cooperation and business integration among supply chain

members (Simpson & Power, 2005; Yeung et al., 2009). Trust contributes to better relationship quality and facilitates knowledge sharing in supply chains (Benton & Maloni, 2005, Cheng et al., 2008; Fynes et al., 2004; Kottila & Rönni, 2008, Spence & Bourlakis, 2009). Trust also has an effect on two other antecedents to supply chain relationships: commitment (Kwon & Suh, 2004) and the sharing of risks and rewards among supply chain members (Mentzer et al., 2001).

The literature in sustainable SCM shows the association between trust and collaboration/cooperation. On one hand, inter-organisational trust is one of the key factors affecting the extent to which organisations engage in cooperative supply-chain environmental management (Sharfman et al., 2009). On the other hand, supply chain collaboration results in improved trust, which enhances sustainable supply chain performance through knowledge sharing and communication (Cheng et al., 2008).

Along with the importance of trust in inter-organisational relations in supply chains, there exist considerable research opportunities. Bachmann and Zaheer (2008) notice that little is known about inter-organisational trust/distrust. Hence, they appeal that more theoretical lenses are introduced to look at the dynamics and mechanism of trust in inter-organisational relations. Trust is defined as “a psychological state comprising the intention to accept vulnerability based on positive expectations of the intentions or behaviours of another” (Rousseau et al., 1998: 395). Therefore, psychology may provide a promising perspective for understanding the dynamics of trust (Schrujijer, 2008).

Commitment

Commitment in inter-organisational relations refers to the belief of an organisation that a relationship is important and worthy of maximum efforts to maintain it (Morgan & Hunt, 1994). It also presents an intention for the future of a relationship (Golicic & Mentzer, 2005, 2006). Various empirical studies provide evidence that trust, commitment, and dependence are antecedents to relationships or to each other (for example, Golicic & Mentzer, 2005, 2006; Mentzer et al., 2000; Morgan & Hunt 1994). In the field of sustainable SCM, Pagell and Wu (2008) highlight the importance of organisational commitment, arguing that an organisation’s proactive stance to sustainability needs to be backed with a tangible commitment

to sustainability. The lack of top management commitment is defined as an internal barrier to sustainable SCM (Ageron et al., 2012; Min & Galle, 2001). Walker, diSisto, and McBain (2008) define lack of commitment amongst suppliers as an external barrier to sustainable SCM. Actually, regarding stakeholder engagement in sustainable SCM, there are two forms of commitment the SCM researchers needs to pay attention to 1) stakeholders' commitment to relationships with others in the supply chains (e.g. focal organisations and other stakeholders); and 2) commitment to sustainability implementation in supply chains.

Sharing

The SCM philosophy of business integration requires mutually sharing of information, risks and rewards among supply chain members (Mentzer et al., 2001). Information sharing is one of the four determinants of inter-organisational competitive advantage defined by Dyer and Singh (1998). Information sharing reduces the uncertainty in inter-organisational relations in supply chains, thus results in enhanced performance (Lusch & Brown 1996). Simatupang and Sridharan (2005) argue that information sharing has become the main feature of supply chain collaboration. Risk and reward sharing is crucial for long-term focus and cooperation in supply chain relationships (Cooper et al. 1997; Mentzer et al., 2001).

The above factors (power/interdependence, organisational fit, trust, commitment, and sharing) determine the structure (including both the type and the magnitude) of the inter-organisational relations in supply chains (Golicic & Mentzer, 2005, 2006; Golicic et al., 2003). Section 2.1.5 now discusses the process and dynamics of inter-organisational relations in supply chains, including 1) relationship structures; 2) the association between relationship antecedents and relationship structures, and 3) how business leaders can proactively manage and make interventions to the inter-organisational relations within supply chains.

2.1.5 Processes and dynamics of supply chain inter-organisational relations

Roles of boundary spanners in supply chain relations

Christopher (2005) highlights the importance of the interface between organisation-internal processes and its inter-organisational relations, especially

in the context of changes in the supply chain. Hence, boundary spanners play important roles in supply relationships. They are normally sales persons, buyers, supply chain managers, senior management and anyone involved in the interfaces of inter-organisational relations. Walter and Gemünden (2000) claim that boundary spanners in supply chains can serve as relationship promoters, which may improve the quality of the inter-organisational relations by 1) identifying appropriate partners of different organisations; 2) developing an understanding of the respective partners; 3) making the partners work together; 4) facilitating the dialogue and the exchange processes; 5) supporting inter-organisational learning processes; and 6) solving inter-organisational conflicts. Wu et al. (2010) explicitly defines four roles of supply/ procurement managers (as boundary spanners) in managing supply relations: negotiator, facilitator, supplier's advocate, and educator.

The literature focuses on the role of leaders and top management in sustainable SCM, arguing that the lack of top management commitment to sustainability is one of the key barriers to sustainable SCM (Ageron et al., 2012; Min & Galle, 2001). A recent study (Touboulic & Walker, 2015a) finds that procurement managers' lack of proactivity in sustainability implementation is also a key barrier to sustainable SCM. However, the understandings of boundary spanners are insufficient. Ramarajan et al. (2011) find out there are negative spillover effects of boundary spanners' negative relations with members of other organisations. Specifically, boundary spanners involved in poor relationships with members from external organisations also had negative attitudes towards their own organisation, as well as their own jobs (for instance, low job attractiveness, low confidence in the organisation, etc.). Unfortunately, they don't know the real cause of this phenomenon. It would also be interesting to know how the boundary spanners' attitudes towards their own organisations affect their attitudes in inter-organisational relations.

Regarding leadership in supply chains, some researchers suggest supply chains need to have leadership in order to develop and execute strategy, and make at least some decisions for the supply chain as a whole (Cooper & Ellram, 1993; Copper et al., 1997; Lambert et al., 1998a; Lambert et al., 1998 b; Li et al., 2006; Mentzer et al., 2001; Sharif & Irani, 2012; Stadtler, 2005). Supply chain leadership can reduce the supply chain risks and foster supply chain integration (Lambert et

al., 1998 a, b). Stadtler (2005) highlights the important role of focal organisations in terms of supply chain leadership. More specially, leaders in the supply chain need to proactively manage the supply relationships through relational leadership (Uhl-Bien, 2006) based on a profound understanding of the features of different relationship structures in supply chains. Gavronski et al. (2011) and Walker & Jones (2012) identify leadership as a key enabler for sustainable SCM. There is a need to know more about how leaders in organisations influence the decisions and strategies around sustainability implementation in supply chains and inter-organisational relations in this process.

Relationship structures in supply chains

Christopher (1992,1998, 2005) and Min et al. (2008) propose that a supply chain should work as a single entity, which implies that the SCM extends the concept of partnerships into a multi-firm collaboration to manage the total flow of goods and information in the supply chain (Ellram, 1990; Jones & Riley 1985). However, many SCM researchers argue multi-form collaboration is just an ideal status for supply chain management (Cannon & Perreault, 1999; Day 2000; Golicic & Mentzer, 2005, 2006; Golicic et al., 2003; Lambert et al., 1996; Mentzer et al., 2000; Vasquez, 2011). Actually, there is not a single type of relationship that is suitable or necessary for all situations in supply chains. Table 1 summarises the supply chain literature about supply chain relationship structures. As indicated in Table1, there are various relationship types in supply chains, from arm’s-length relationships based on transactions to partnerships.

Authors	Proposed structure	Criteria
Beamon, 1998	A 2×2 supply chain “relationship matrix.”	N/A
Lambert et al., 1996	Three types of partnership	Level of integration Length of relationship/ longevity
Hoyt &Huq, 2000	A continuum from transaction processes to collaborative processes	Trust Information sharing
Mentzer et al., 2000	A continuum from operational partnering to strategic partnering	The level of antecedents, The level of orientation, The level of implementation
Vasquez, 2011	Arm length relationship Cooperative relationship Collaborative relationship Alliance	Power Interdependence Longevity Sharing Trust

Table 1 Summary of supply chain relationship structures

2.1.6 Outcome of inter-organisational relations in supply chains

Vasquez (2011) argues that in nearly any inter-organisational relations, the organisations involved in these relations expect enhanced outcomes. Supply chain researchers normally focus on the association between particular types of relationships and the value perception, stakeholder satisfaction, quality and transactional cost of the relationships (for instance, Dyer, 1997; Flynn et al. 2010; Ryu et al., 2009). Barnett and Salomon (2011) distinguish between social and financial outcomes of supply relationships. Regarding sustainability implementation in the supply chain, Shaw et al. (2010) highlight the importance of environmental indicators.

This research focuses on the sustainability projects initiated by large international institutions. These sustainability projects might be different from each other, in terms of project contents and members involved in these projects. Hence, this project adopts a general model of outcome evaluation, which is suggested by Beamon (1999). Beamon (1999) suggests three necessary components for any performance evaluation system: resource, output, and flexibility. In this research, flexibility is particularly important. According to Beamon (1999), flexibility is crucial to the success of SCM because supply chains exist in an uncertain environment. This project studies sustainability implementation in supply chains, which involves even more uncertainty than traditional supply chains (Attaran & Attaran, 2007) and requires changes in managerial concepts and business processes (Pagell & Wu, 2009). Figure 4 summarises the antecedents, process, and outcome of supply relationships.

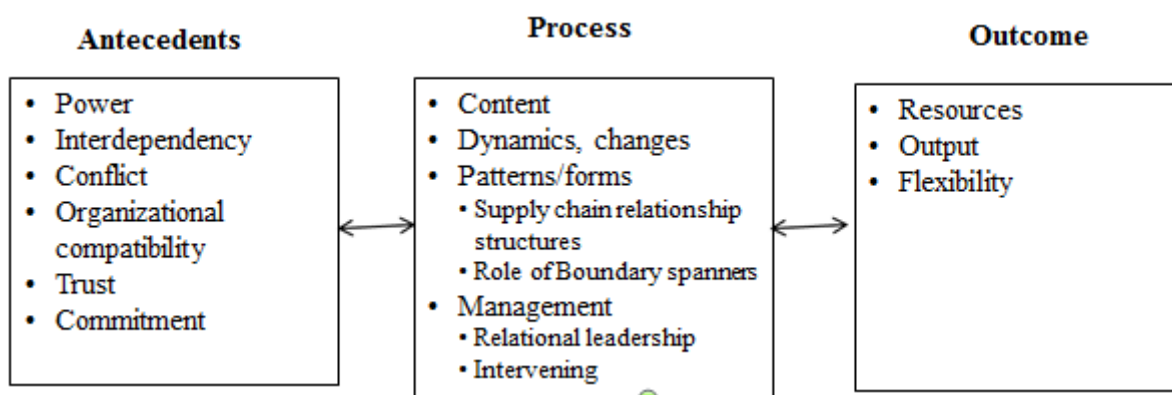


Figure 4 The antecedents to, processes of, and outcomes of supply relationships

2.1.7 Research opportunities around inter-organisational relations in sustainable SCM

Despite the importance and complexity of inter-organisational relations in sustainable SCM, research in this field is limited. The existing literature focuses on the following topics: the impact of sustainable SCM on supplier performance (Carter & Jennings, 2002; Oruezabala & Rico, 2012); the impact of green supplier development on organisational performance (Hollos et al., 2012); the importance of capacity building (Grindle et al., 1995; Reuter et al., 2010); the impact of suppliers' collaboration and assessment on social and environmental performance (Gimenez & Tachizawa, 2012); the impact of power on inter-organisational relations in sustainable SCM (Touboulic et al., 2014); green supplier selection (Bai & Sarkis, 2010; Lee et al., 2009); risk management (Foerstl et al., 2010); and examples of collaboration in environmental supply chain management (Lee & Kim, 2011; Pagell et al., 2007; Simpson, 2010; Simpson & Power, 2005; Theyel, 2001; Vachon & Klassen, 2007). Notwithstanding the important contributions of previous research, considerable literature gaps, and research opportunities still exist.

The first area of research opportunity can be defined along the lines of the process of inter-organisational relations is under-explored. The literature mainly focuses on the content of the practices, identifying what practices would be most effective in achieving environmental and social performance with suppliers (Pagell & Shevchenko, 2014; Touboulic & Walker, 2015a). However, there are limited frameworks analysing and describing the process of implementing sustainability in supply networks (Touboulic & Walker, 2015a; van Bommel, 2011). Particularly, the literature emphasises supplier selection (Bai & Sarkis, 2010; Lee et al., 2009) and assessment (Gimenez & Tachizawa, 2012) in sustainable SCM, whereas there is a need to take a more nuanced view on the process of inter-organisational relations in sustainability implementation in supply chains. For example, how can organisations disseminate their sustainability initiatives to their supply chain stakeholders (Teuteberg & Wittstruck, 2010)? And, how do focal organisations deal with their long-term legacy suppliers (Hoejmose & Adrien-Kirby, 2012)?

A second research opportunity lies in the dynamics and complexities of inter-organisational relations in sustainable SCM. According to the observation of Touboulic and Walker (2015b), the collaborative paradigm is dominant in the literature on inter-organisational relations in sustainable SCM. However, given the complexity and dynamics of inter-organisational relations in sustainable SCM (refer to section 2.1.3 for more details), it may be too idealistic to believe that truly collaborative relationships can be developed and maintained easily (Touboulic & Walker, 2015b). Sustainable SCM can be regarded as a change process (Pagell et al., 2010; Touboulic & Walker, 2015 a; Touboulic & Walker, 2015b). Therefore, there is a need to import or develop a theoretical framework that can deal with the dynamics, complexity, and evolution of inter-organisational relations in sustainable SCM.

The third research opportunity is related to the psychological aspects of inter-organisational relations in sustainable SCM. As shown in Figure 4, some antecedents to supply chain relationships (for example, trust and commitment) are psychological factors. In addition, Touboulic and Walker (2015a) argue that the perceptions of supply chain stakeholders are the most critical factors hindering and/or enabling collaboration on sustainability. More specifically, from the suppliers' perspective, the most crucial hindering factor is the perceived unilateral approach adopted by the focal organisations. From the perspective of the focal organisations, the most crucial hindering factor is the perceived suppliers' resistance to change. Notably, perception is also relevant to psychological factors. However, the psychological aspects of supply chain relationships are under-explored. Recognizing this theoretical gap, some researchers (for example, Ketchen & Hult, 2011; Sarkis et al., 2011; Touboulic & Walker, 2015a; Touboulic & Walker, 2015b; Walker et al., 2012) appeal for a deeper understanding of the underlying behavioural and human issues in inter-organisational relations in sustainable SCM. Section 2.2 now introduces social identity theory, examines group processes and intergroup relations, and argues for the relevance of social identity theory to the study of inter-organisational relations in the context of sustainable SCM.

2.2 Social identity theory and its relevance to inter-organisational relationships

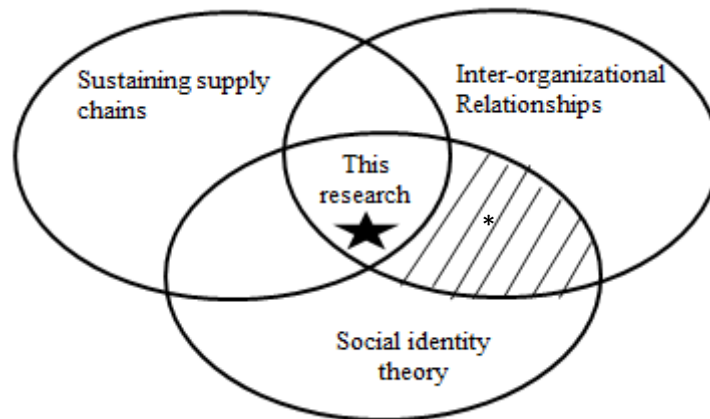


Figure 5 The research scope: inter-organisational relationships and social identity

* The shaded area indicates this particular section in the thesis

Section 2.2 discusses the overlapping area of social identities and inter-organisational relations, which is indicated by the shaded area in Figure 5. Section 2.2.1 briefly introduces social identity and self-categorization theories (together making up the social identity approach). Section 2.2.2 introduces the mechanism and outcome of social identity salience. Sections 2.2.3 and 2.2.4 discuss the application of social identity theory in organisational contexts, focusing on organisational identity and organisational identification respectively. Section 2.2.5 discusses the relevance of social identity theory to the study of inter-organisational relations, especially in the context of sustainability implementation in supply chains.

2.2.1 Introduction to the social identity approach

Social identity theory (Tajfel & Turner, 1979) is one of the most influential theories in contemporary social psychology and is widely used in organisations (Haslam, 2004). It provides a social psychological analysis of group membership, group processes, and intergroup relations (Hogg, 2006). Social identity theory “addresses phenomena such as prejudice, discrimination, ethnocentrism, stereotyping, intergroup conflicts, conformity, normative behaviours, group polarisation, crowd behaviours, organisational behaviours, leadership, deviance, and group cohesiveness” (Hogg, 2006: 111). The broad social identity theory consists of two related parts: social identity theory (Tajfel & Turner, 1979) and

self-categorization theory (Turner, 1987). These two theories are overviewed as an integrated whole and are jointly described as the social identity approach (Hogg, 2000; Turner, 1999).

Social identity theory focuses on inter-group relations with reference to issues of identity. The concept of social identity is used to theorise how people conceptualise themselves in intergroup contexts, and how social categorizations create and define individuals' places in society (Tajfel, 1972). Social identity rests on intergroup social comparisons that seek to establish or confirm in-group favouring distinctiveness between in-group and out-group (Hogg & Terry, 2000). Social identity activities and intergroup behaviours are motivated by needs for self-enhancement and uncertainty reduction (Ashforth & Mael, 1989; Grant & Hogg, 2011; Hogg, 2009; Hogg & Mullin, 1999; Tajfel & Turner, 1979).

Self-categorization theory is the extended part of social identity theory. It focuses on the cognitive mechanisms behind the activation of specific identities and their effects (Turner, 1987). Self-categorization theory proposes that the self is made up of multiple self-categorisations that vary in their inclusiveness. When a particular social identity is salient and has value for a person, the social identity is internalised and shapes an individual's sense of self (and his/her identity) where one's self is shaped by the perception of being part of a shared social identity (Hogg & Terry, 2000; Turner, 1985). The following paragraphs introduce several basic concepts involved in the social identity approach: social identity, social identification, prototypes, and norms.

Social identity

An identity is a component of the self-concept/definition (Tajfel & Turner, 1979), which is comprised of a personal identity and a social identity. A personal identity encompasses "idiosyncratic characteristics (e.g., bodily attributes, abilities, psychological traits, interests) while a social identity encompasses "salient group classifications" (Ashforth & Mael, 1989: 21). A social identity refers to "the individual's knowledge that he belongs to certain social groups together with some emotional and value significance to him of this group membership" (Tajfel, 1972: 292). According to Turner (1982), social identity is an important component of self-definition. Furthermore, it is "the cognitive mechanism which makes group behaviours possible" (Turner, 1982: 21). When social identity is salient, i.e. when

people define themselves by social identity rather than personal identity, particular group membership serves to guide people's behaviours (Haslam et al., 2000).

Social identification

A social identification is "a perception of oneness with a group of persons" (Ashforth & Mael, 1989: 21). Social identification leads to behaviours, perceptions, and attitudes that are congruent with the identity (Ashforth & Mael, 1989). Identification with a social group/category is linked to one's value and emotional salience with this social group/category (Hogg, 2001; Tajfel & Turner, 1979). Turner (1984: 530) argues for the existence of a "psychological group," which is "a collection of people who share the same social identification or define themselves in terms of the same social category membership." Social identifications have two basic natures: relational and comparative. As Turner et al. (1987: 50) put it, social identification entails a depersonalised sense of self, "a shift towards the perception of self as an interchangeable exemplar of some social category and away from the perception of self as a unique person". The depersonalization of the social identity process is accomplished by prototypes, which are introduced below.

Prototypes

Prototypes are the sets of group attributes (features, perceptions, attitudes, feelings, and behaviours) that minimises the in-group identity and maximises out-group difference. Prototypes describe and evaluate categories, and also prescribe membership related behaviours (Turner et al., 1987). Hogg (2006: 118) argues that prototypes rarely describe the average or typical in-group members; instead, "they describe ideal, often hypothetical, in-group members." It has two important features related to group activities: being widely shared within certain social groups, and motivating socially coordinated action (Hamilton & Sherman, 1996; Haslam, 2004; Hogg & Reid, 2006). Social identity processes involve social comparisons among people and self, based on group membership and group prototypes (Hogg, 2006).

Norms

Hogg and Reid (2006: 7) define group norms as "regularities in attitudes and behaviours that characterise a social group and differentiate it from other social

groups.” In other words, norms are shared patterns of thoughts, feelings, and behaviours among group members (Hogg & Tindale, 2005). As summarised by Turner (1991), norms are the accepted or implied rules within the groups about how group members should and do behave.

Norms are strongly associated with prototypes and social identities. Norms have an impact on group members’ attitudes and behaviours. Hogg (2006) argues that group prototypes are tied to social identities and describe individual cognitive representations of group norms. Smith and Terry (2003) highlight the powerful role of group norms in directing and regulating individual behaviours. They argue that when social identity is salient, norms have a stronger impact on the members’ self-definitions/perceptions, attitudes, and behaviours (also refer to Terry & Hogg, 1996). Furthermore, although people typically exert less effort in collective situations than they would on their own (Karau & Williams 1993), they may be motivated to exert more effort on behalf of their group and its goals when the social identity of the group is salient. Their attitudes and behaviours will be adjusted according to shared norms, so as to maximise the group benefits (Turner, 1987).

Figure 6 summarises the relationships among the key concepts involved in the social identity approach. As indicated in Figure 6, the basic concepts in the social identity perspective (salience of a social identity, shared norms, and shared prototypes) are associated with some important factors influencing the inter-organisational relations in sustainable SCM (for example, trust, commitment, shared goals, attitudes, behaviours and perceptions). Therefore, the social identity approach can provide new insights into inter-organisational relations in sustainable SCM. After introducing the key concepts involved in social identity processes, the next few paragraphs discuss the mechanism of social identity, including the antecedents, processes, and consequences of social identity. After a brief introduction to the social identity theory and self-categorization theory, Section 2.2.2 discusses social identity and social identification, which are closely related to inter-group relationships and behaviours.

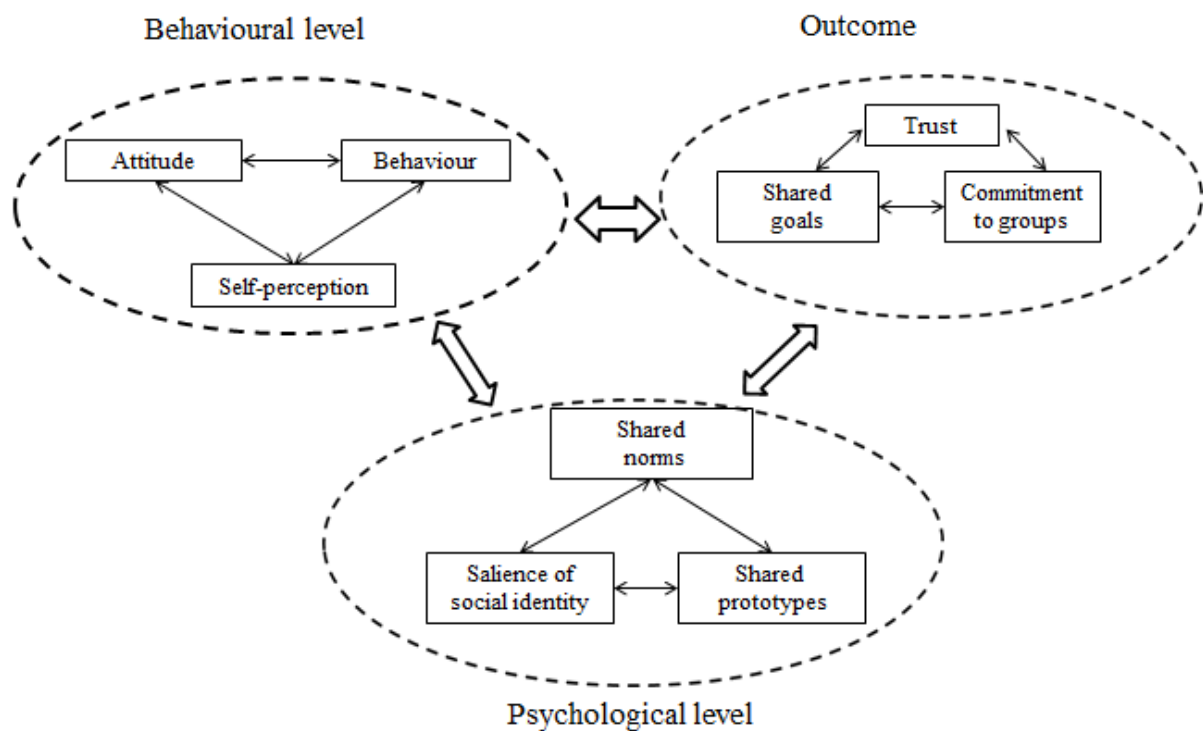


Figure 6 The key concepts involved in social identity process

2.2.2 The mechanism and outcome of social identity salience

Antecedents to social identity salience

Tajfel's minimal group paradigm (Billig & Tajfel, 1973; Tajfel et al., 1971) provided evidence that social identification may occur even by random assignment to a group and in the absence of the following elements: strong leadership, member interdependence, interaction, and cohesion (Hogg, 2006a). But social identification and social identity salience normally associated with the following factors: 1) the prestige of the group; 2) the distinctness of the outer group; 3) the continuity of the prototype; 4) prototypicality fit; and 5) group categorization /affiliation (Tajfel & Turner, 1979; Turner, 1987).

A social identity can become salient to members by creating feelings of belonging and a sense of community (Alvesson, 1995; Alvesson & Willmott, 2002). Group categorization can occur via social events and the management of shared feelings (van Maanen & Kunda, 1989), even without any references to specific values or a distinctive content (Alvesson & Willmott, 2002). The social identity process is driven by the two motives of a human being: uncertainty reduction (Swan et al., 1989) and self-enhancement (Sedikides, 1993; Sedikides & Strube, 1995), which are two factors that interact with each other (Reid & Hogg, 2005). When people are self-conceptually uncertain, they are motivated by uncertainty

reduction to identify with groups equal to their social status. Whereas when people are self conceptually certain, they are motivated by self-enhancement to identify more with groups with high social status.

The social identity processes

Turner et al. (1987) argue that self-categorization is the cognitive basis of social identity processes. Social identity processes are highly relational and comparative. A category only exists if it is compared with another (Abrams & Hogg, 1999; Hogg & Abrams, 1996). Common processes across identities include 1) social contrast and comparison; 2) individual efforts in identity formation (Phinney, 2008). Phinney (2008) notices that social identity is a complex and dynamic construct. He argues that identity develops over time, and it is significantly influenced by the social contexts that individuals confront. Besides the complexity of social identities (Phinney, 2008), Hogg (2006) notices that people may have multiple personal/social identities since there exist different roles for them and different groups that they belong to. But only one identity is psychologically salient in any given situation.

Outcome of social identity salience

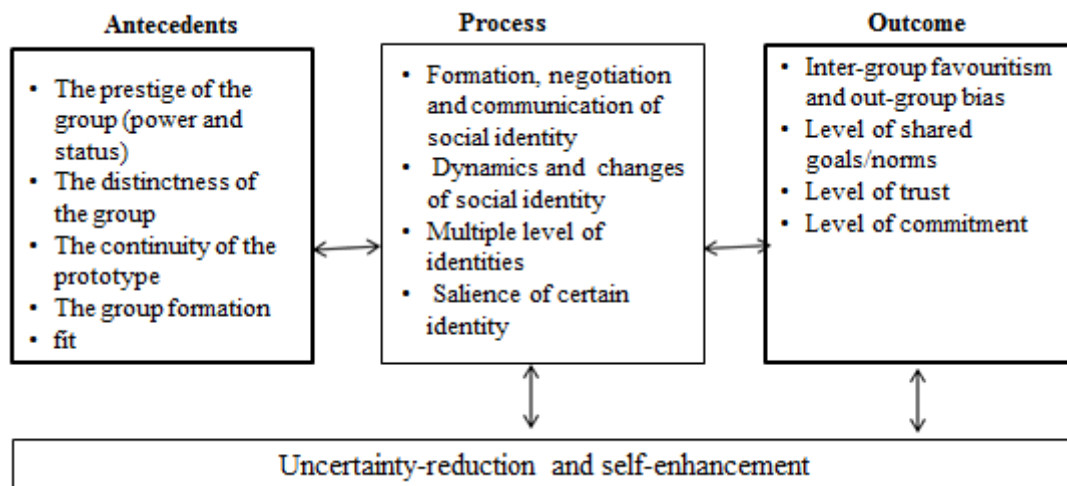


Figure 7 The antecedents to, processes of, and outcomes of social identity process

When a social identity is salient, people identify with the group with emotional and value significance. As a result, they see themselves as categorically interchangeable with other in-group members; they influence, and are influenced by, in-group members; and they enhance self-esteem by working collaboratively in shared norms towards shared in-group goals (Haslam, 2004, Tajfel & Turner, 1979). There are several determinants of social identity salience: the prestige of

the group, the distinctness of the group, the continuity of the prototype, and the group formation (Tajfel & Turner, 1979; Turner, 1987). Figure 7 summarises the antecedents to, processes of, and outcomes of social identity.

Some researchers (Min et al., 2008; Staw, 1991; Staw & Sutton, 1992) argue the micro-level theories are also useful for explaining macro-level phenomena. The existing wide application of social identity theory at a single organisational level has laid a good basis for researchers to expand its application to more macro level. In fact, the social identity literature has become mature beyond the individual organisation level and there have been convincing studies of using social identity theory in research of 1) mergers and acquisitions (Bartels et al., 2009; Clark et al., 2010; Empson, 2004; Rentsch & Schneider, 1991; Terry et al., 2001; van Knippenberg & Leeuwen, 2001; van Knippenberg et al., 2002), 2) joint ventures (Li et al., 1999; Lin & Malhotra, 2011), 3) virtual organisations (Davenport & Daellenbach, 2011; Webster & Wong, 2008; Wiesenfeld et al., 1998), 4) inter-organisational collaborations (Isbell, 2010; 2012), and 5) vertical group in supply chain (Shanley & Peteraf, 2004a; Shanley & Peteraf, 2004b), where two or more individual organisations coming together, with or without a common ownership. The supply chain may be regarded as a virtual organisation, which is composed of several independent entities with the common goal of effectively integrating business process and managing the relationship in supply chains (Tan, 2001).

In the existing literature, the application of social identity theory in organisations focuses on organisational identity and organisational identification. Hence, the next two sections will provide a literature review on the application of social identity theory in organisations, which will lay a solid theoretical basis for applying the social identity approach in SCM.

2.2.3 Organisational identity

Definition of organisation identity and its roles in organisations

The use of social identity theory in organisational studies is often around the concept of organisational identity. According to the classic definition of Albert and Whetten (1985), organisational identity comprises those characteristics of an organisation that its members believe are central, distinctive, and enduring. It

refers to the social identity of the people inside an organisation (Gioia et al., 2002; Haslam et al., 2003) and "the shared meaning that an organisation is understood to have that arises from its members' (and others') awareness that they belong to it" (Cornelissen et al., 2007: 469). A salient organisational identity represents commonly shared values (O'Reilly & Chatman, 1986, 1991), goals and norms (Mayer et al., 1995). Consequently, it is often associated with high trust, commitment, and productivity (Ashforth & Mael, 1989; Haslam et al., 2003; Mayer et al., 1995; Puusa & Tolvanen, 2006; van Knippenberg, 2000). Organisational identity has three essential features: central, distinctive, and enduring (Albert & Whetten, 1985; Ravasi & Schultz, 2006; Whetten, 2006). Barney et al. (2011) argue that these features overlap with the characteristics of resources (valuable, rare, inimitable, and non-substitutable). Hence, organisational identity can be served as a valuable resource for firms.

Organisational identity and stakeholders

Organisational identity processes are inextricably linked to organisations' relations with others (Albert et al., 2000). On one hand, organisational identity emerges and develops over time from the complex interactions among internal and external stakeholders (Gioia, 1998; Scott & Lane, 2000). The discrepancy between the ways an organisation views itself (the intended identity) and the way the external stakeholders view it (the perceived identity) affects the effectiveness of the organisation (Hatch & Schultz, 2002). On the other hand, an organisation's relations with its internal and external stakeholders keep a prominent feature of its organisational identity (Brickson, 2005). Brickson (2007) proposes the concept of organisational identity orientation. In detail, external identity orientation refers to the consistency in organisational members' perceptions of how their organisations relate to external stakeholders, whereas as internal identity orientation refers to the consistency in organisational members' perceptions of how their organisation relates to them as insiders. The concept of organisational identity orientation may provide new insights into focal organisations' relationship with its internal stakeholders and its external stakeholders.

Multiple identities of the organisation

Organisations may have multiple identities (Albert & Whetten, 1985; Ashforth & Mael, 1996; Bartels et al., 2007; Foreman & Whetten, 2002; Golden-Biddle & Rao, 1997; Joshi, 2010; Pratt & Corley, 2007; Pratt & Foreman, 2000; Pratt & Kraatz, 2009; Sillince & Brown, 2009), just like people may have multiple identities (Thoits, 1983; Turner et al., 1987). Based on the definition of Albert and Whetten (1985) on organisational identity, Pratt and Foreman (2000: 20) posit that “organisations have multiple organisational identities when different conceptualizations exist regarding what is central, distinctive, and enduring about the organisation”. Many organisations develop multiple identities when they develop in size, acquire other companies, and face external changes (Kreiner et al., 2006). Larson and Pepper (2003) identify competing value options as targets and sources of multiple identities.

Organisations’ multiple identities influence and are influenced by their relationships with internal and external stakeholders. Organisational stakeholders are not simply passive receivers of organisations’ efforts to shape the organisational identity but are active participants in constructing and reconstructing their identities as they assess the compatibility and competition between relevant identity targets/ sources (Scott et al., 1998). Thus the salience of identities is defined by various kinds of identity comparisons. These comparisons affect the stakeholders’ attitudes and behaviours towards the organisation (Ashforth & Mael, 1989; Dutton & Dukerich, 1991; Gioia et al., 2000; Gioia et al., 2010; Whetten et al., 1992).

There are both potential benefits and costs in multiple identities (Pratt & Foreman, 2000). In terms of benefits, organisations with multiple identities are usually more capable of meeting a wider range of expectations, demands, and interests than similar organisations with only one identity (Pratt & Foreman, 2000). Organisations defining themselves in multiple ways may be more flexible in responding to their business environment (Pratt & Foreman, 2000), thus be more appealing to external stakeholders (Albert & Whetten, 1985).

Regardless of the potential benefits, some researchers propose that multiple identities may be more likely to result in intra-organisational conflicts. Hence, multiple identities may potentially lead to organisational inaction or vacillation (Golden-Biddle & Rao, 1997; Pratt & Rafaeli, 1997). Furthermore, organisations

having conflicting identities may also potentially face problems in their relationships with their external stakeholders (Dutton & Dukerich, 1991).

In consideration of the potential benefits and costs of multiple organisational identities, Cheney (1991: 9) proposes that “the nature of organisational rhetoric in the industrialised world in the late twentieth century is the management of multiple identities.” Similarly, Albert & Whetten (1995) and Pratt & Foreman (2000) argue that managing multiple identities is one of the primary functions of organisational managers. However, according to their observation, the majority of the existing research on organisational identities presumes an organisation has a singular, central organisational identity with which its internal and external stakeholders may come to identify. There is a considerable ignorance of the multiple dimensions of organisational identities.

The dynamics of organisational identity

Organisational identities may be dynamic and complex. First, although some researchers emphasise the importance of organisational identity consistency and stability (Albert & Whetten, 1985; Foreman & Whetten, 2002), other researchers (Corley & Harrison, 2009; Grotevant, 1987; He & Baruch, 2009; Cornelissen et al., 2007; Gioia et al., 2000; Ketchen & Hult, 2011) suggest that it's better to treat organisational identity as a relatively fluid and unstable concept. They argue that instability of organisational identity helps organisations to confront changes. In detail, Grotevant (1987) calls researchers' attention to the process of identity exploration. He argues that identity formation is developmental, contextual, and happens across the lifespan. Corley and Gioia (2004) find out that “identity ambiguity” helps to create a state of flux that is needed to respond to organisational changes. Some researchers (Bond & Seneque, 2012; Clark et al., 2010) propose that transitional identity can be formed as a facilitator of organisational identity change during some major organisational changes.

Second, the formation of organisational identity is a socially negotiated process (Cornelissen et al., 2007; Luring & Thomsen, 2008, 2009; Thomas et al., 2011; Thomsen & Luring, 2008). In the business world, top management normally tends to define and communicate organisational identity on behalf of the rest of the organisation, without conducting dialogues (Cheney et al., 2004). If

organisational identities are imposed on employees by the decision makers, employees may not feel the sense of belonging to the organisation and its imposed identity (Lauring & Thomsen, 2009). The organisational identity forming includes four sequential stages: “(1) articulating a vision, (2) experiencing a meanings void, (3) engaging in experiential contrasts, and (4) converging on a consensual identity” (Gioia et al., 2010: 2).

Leaders and organisational identity

Turner et al. (2010) argue that leaders should be the in-group prototypes, in-group champions, the entrepreneurs, and the embedders of organisational identities. They suggest that the leaders should proactively maintain the salience of the organisational identity. The salience of the organisational identity can be achieved through organisational identity regulation (Alvesson & Empson 2008; Alvesson & Willmott, 2002; Empson, 2004; Faulconbridge et al., 2012; Gotsi et al., 2010), which includes the following measures 1) creating a positive organisational image; 2) creating and presenting distinctiveness of the organisation; 3) keeping the continuity of the organisational prototypes; and 4) group formation.

Meanwhile, to influence the organisational members on their attitudes and behaviours, leaders need to use different sources of power according to the different levels of social identity salience (Subašić et al., 2011). In the absence of a shared social identity between leaders and organisational members, organisational members perceive that it's more reasonable and acceptable for leaders to use reward or coercive power (Schwarzwald et al., 2005; Subašić et al., 2011). In this scenario, leaders need to conduct close monitoring on organisational members so as to motivate compliance with their views, goals, and objectives (David & Turner, 2001; Reynolds & Platow, 2003). In the case of a salient shared identity between leaders and organisational members, there are fewer needs for leaders to use coercive power (i.e. punishment) and close monitoring (Subašić et al., 2011). Notably, the micro-power, which occurs in day-to-day business relationships, may be used as a means of identity regulation in creating social categories and affiliation (Alvesson & Willmott, 2002). After introducing the dynamics of organisational identity, Section 2.2.4 discusses

organisational identification, a process closely linked to organisational identity (Pratt, 1998).

2.2.4 Organisational identification and its outcome

Definition of organisational identification

Organisational identification is a fundamental human process in organisations (Pratt, 1998). More specifically, Foreman and Whetten (2002) argue that organisational identification can be regarded as the result of organisational identity congruence. Dutton et al. (1994: 242) explicitly define identification as “a cognitive link between the definitions of the organisation and the self.” Organisational identification has been used to explain various organisational processes and behaviours, such as 1) cooperation and citizenship (Dutton et al., 1994; Epitropaki, 2012; Restubog et al., 2008; van Dick et al., 2006; van Dick, 2008); 2) loyalty and commitment (Elsbach, 1999; Kim et al., 2010; Lichtenstein et al., 2010; Mael & Ashforth, 1992; Whetten et al., 1992); 3) organisational control (Alvesson & Willmott, 2002; Barker & Tomkins, 1994; Macintosh & Quattrone, 2009), and 4) strategic change (Gioia & Thomas, 1996; Nag et al., 2007; Reger et al., 1994; Sonenshein & Dholakia, 2012). Identification results in positive outcomes such as enhanced loyalty, organisational citizenship behaviours, reduced turnover (Ashforth et al., 2008), and employee’s sense of belonging at work (Haslam, 2004).

Scott et al. (1998) make a clear classification between organisational identity and organisational identification. They treat identity as a set of rules and resources available to organisational members. According to them, organisational identification is the process and product of organisational identity. More specifically, organisational identification is the communicative construction of organisational identity: “identification is the process of emerging identity. Identification, especially as expressed in symbolic terms, represents the forging, maintenance, and alteration of linkages between persons and groups” (Scott et al., 1998: 304).

Types of organisational identification and their outcome

Notably, the organisational identification process is complex and dynamic. The salience of organisational identity doesn't only have two extreme scenarios as "yes" or "no". The literature indicates at least five different ways that an individual identifies with his/her organisation (Kreiner & Ashforth, 2004): 1) strong identification (Dutton et al., 1994), 2) strong dis-identification (Duckerich et al., 1998; Hom & Griffeth, 1994), 3) ambivalent identification (Duckerich et al., 1998; Elsbach, 1999), 4) neutral identification (Elsbach, 1999), and 5) over-identification (Ashforth & Humphrey, 1997). The organisational identification process can become complex if there are multiple organisational identity claims (Ashforth & Mael, 1989; Cheney, 1991; Foreman & Whetten, 2002).

A strong organisational identification occurs when individuals define themselves by the same attributes that they perceive to define the organisation (Dutton et al., 1994). Strong organisational identification may bring desirable outcomes such as intra-organisational cooperation or citizenship behaviours (Dutton et al., 1994). People who highly identify with an organisation desire to comply with organisational rules, and are willing to communicate openly and adapt themselves to organisational changes actively (Hatch & Schultz, 2003; Hogg & Terry, 2001).

Dis-identification occurs when organisational members don't trust or like the organisational prototypes and value systems, which indicates the deep conflicts between the organisational members and the organisation (Duckerich et al., 1998). Members' dis-identification with the organisation will increase the organisational costs and /or challenges to the organisation management (Home & Griffeth, 1995).

Ambivalent identification occurs when there is a loose association between the complexity of the organisation and the individual value systems (Duckerich et al., 1998; Elsbach, 1999). Ambivalent identification leads to simultaneous commitment and complaints to the organisation (Meyerson & Scully, 1995). The explicit organisational goals may reduce ambivalent identification.

Neutral identification refers to the self-awareness of organisational members that they neither identify nor dis-identify with the organisation (Elsbach, 1999). With

neutral identification, the individual identities of organisational members become salient, with the outcome that they would not contribute fully to the organisation.

Notably, over-identification with an organisation is also harmful, which is like to cause the over dependence of organisational members on the organisation and reduces the flexibility of the organisation. In this context, organisational members may either depend on and obey the organisation fully, or lose their trust for the organisation fully (Ashforth & Humphrey, 1997).

Extended Identification Model

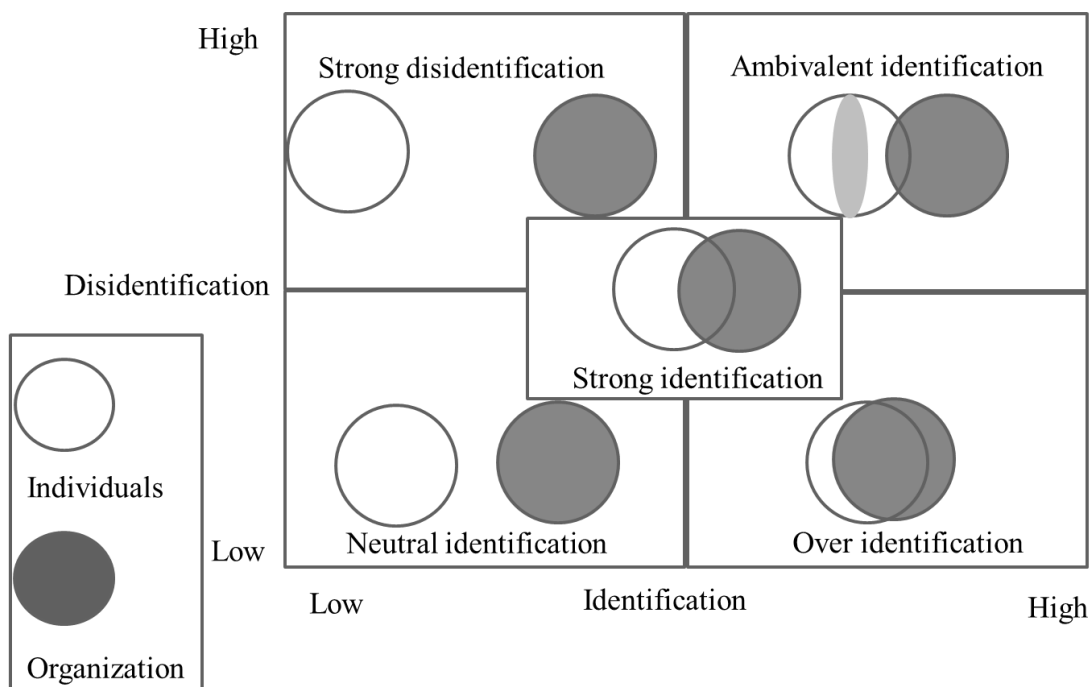


Figure 8 The extended identification model
Adapted from Deng (2009: 59)

Figure 8 summarises different types of organisational identification according to the existing literature (Ashforth, 2001; Ashforth & Humphrey, 1997; Dukerich, 1998; Elsbach, 1999; Home & Griffeth, 1995). The identification model (Deng, 2009) demonstrates that individuals' different identification types present their different levels of trust, commitment with and dependence on organisations. Hence, the identification types in the model indicate individuals' different relationships with the organisation and the other members of the organisation at the psychological level. The description of different identification types implies that values systems and organisational cultures play an important role in organisational identification. Organisational identification is influenced by identity

comparison. In detail, researchers find that there are several other factors influencing organisational members' identification with the organisation: 1) the distinctiveness of the out-organisation; 2) the distinctiveness of the organisation; 3) competition within the organisation; 4) prestige and image of the organisation; 5) whether the identification with the organisation can enhance the self-esteem of the organisational members (Ashforth & Mael, 1989; Dutton et al., 1994; Mael & Ashforth, 1992). The last four factors can be managed through identity regulation (Alvesson & Willmott, 2002).

2.2.5 Other identities related to inter-organisational relations

In the context where two or more organisations work together, some researchers propose the concepts of shared identities (Coombs & Holladay, 2014; Henisz, & Levitt, 2011; Poppo et al., 2008) or collective identities (Diani, 2013; Hardy et al., 1998; Hardy et al., 2005; Ybema, 2010). In the SCM field, some researchers propose the concept of a supply chain identity (Ireland & Webb, 2007; Ketchen & Hult, 2011; Min et al., 2008; Wei & Wang, 2010), which will be discussed in detail in Section 2.3.1. The consensus among these studies is that shared /collective identities generate commitment, trust, and cooperation in the inter-organisational relations, thus represent the ultimate source of competitive advantage (Sammorra & Biggiero, 2001).

In line with the concept of a shared/collective identity, Berger et al. (2006) propose the concepts of "inter-organisational identification" (is also called cross-organisation identification). They argue that intra-organisational identification and inter-organisational identification are interconnected and mutually reinforcing. In an inter-organisational collaboration, boundary spanners' identification with their organisations (i.e., intra-organisational identification) will be enhanced by the presence of both the following conditions: 1) they perceive that participation in the collaboration as resolving some of their own personal integration; and 2) they perceive that the collaboration as part of their organisations' identities. Similarly, when they perceive that participation in the collaboration as resolving some of their own personal integration conflicts and identify the collaboration as part of the partnering organisations' organisational identities, their identification with the partnering organisations (inter-organisational identification) will also be increased. Section 2.2.6 now discusses the relevance of the social identity approach to the

studies on inter-organisational relations, especially studies on inter-organisational relations in sustainable SCM.

2.2.6 Relevance of the social identity approach to the study of inter-organisational relations

Justification for using the social identity approach in inter-organisational relationship research

One may question whether a theory focusing on the inter-group relationships can explain the inter-organisational relations sufficiently. This doubt can be released by both the dimensions of inter-organisational relationship research context and the fundamental process in social process. First, there are two dimensions of inter-organisational relationship research context: the micro-level context and the macro context (Cropper et al., 2008). Various empirical studies evidence that features of organisational groups and individual organisation members have impacts on the functioning and results of inter-organisational relations (Cropper et al., 2008; Higgins & Gulati, 2003; Huxham & Vangen, 2005; Maurer & Ebers, 2006; Mizruchi, 1996; Schruijer, 2008; Seabright et al., 1992; Stock, 2006; Uzzi, 1997; Uzzi & Lancaster, 2003). These studies provide a solid academic basis for the researcher to adopt social identity theory, a theory focusing on inter-group relationships (the micro dimension of inter-organisational relationship research context), to explore inter-organisational relations.

Schruijer (2002, 2008) and Vansina et al. (1998) argue that inter-organisational relationships may involve the comparable psychological processes to inter-group relationships. This argument is supported by experiments on the forming and maintaining the relationships with seven different organisations (Schruijer, 2002; Vansina et al., 1998). Schruijer (2008: 435) argues that a group can be conceived as a micro-organisation, and that “the value of social psychological research into the dynamics of intergroup relations is that it simplifies the complexity of inter-organisations, exposing fundamental psychological process.” She also suggests that in order to overcome the shortcoming brought about by this simplification, there is a need for studying real organisations and their interactions. This research explores inter-organisational relationships in real organisational lives (the interaction between large international institutions and their supply chain stakeholders). Therefore, the findings of the social identity approach to inter-

group relationships can be tested and refined in real-life inter-organisational relationships. The next paragraphs discuss the new insights that the social identity perspective can bring into the inter-organisational relationship research.

New insights that the social identity approach can bring into inter-organisational relationships research

First, the social identity approach can shed light on the inter-organisational relationships research by exploring the psychological level of inter-organisational relationships in sustainable SCM, which is suggested by some SCM scholars (for example, Ketchen & Hult, 2011; Sarkis et al., 2011; Touboullic & Walker, 2015a; Touboullic & Walker, 2015b; Walker et al., 2012). A large amount of research in sustainable SCM emphasises the importance of inter-organisational relationships, including the impacts of the relational antecedents (such as trust, commitment) on inter-organisational relationships in sustainable SCM. But little is known about the reasons of trust or distrust (Bachmann & Zaheer, 2008). The social identity approach declares that trust, commitment, coordinated actions are the outcome of the self-categorisation and identification processes (Haslam, 2004, Tajfel & Turner, 1979). Therefore, this approach explains the sources of trust and commitment from the psychological perspective. Sections 2.2.3 to 2.2.5 discussed two types of identities related to inter-organisational relationships: organisational identities and shared/collective identities in a network of organisations. Organisational identities influence (Brickson, 2005; 2007) and are influenced (Gioia, 1998; Scott & Lane, 2000) by the relationships between the organisation and its internal and external stakeholders. Whereas a shared/collective identity can generate commitment, trust, and cooperation in the inter-organisational relationships (Brewer 2001; Coombs & Holladay, 2014; Diani, 2013; Hardy et al., 1998; Hardy et al., 2005; Henisz, & Levitt, 2011; Poppo et al., 2008; Sammarra & Biggiero, 2001; Snow, 2001; Ybema, 2010).

Second, there is an increasing number of appeals for exploring the process of inter-organisational relationships in sustainable SCM (for example, Hoejmose & Adrien-Kirby; 2012; Teuteberg & Wittstruck, 2010). The major value of adopting a social identity perspective in investigating inter-organisational relationships is that it draws attention to the dynamic categorization processes of how people's sense of self and relations with others is shaped by their social identities. This

process is cued by both psychological and environmental features that together make a social identity salient and meaningful for a person. The following are the detailed new insights that the social identity approach can provide to examining inter-organisational relationships. First, the social identity approach examines the perceptions, beliefs, attitudes and behaviours of members, thus provides new insights into the roles of boundary spanners in inter-organisational relationships. Second, the social identity literature on leadership provides potential solutions on how leaders can influence inter-organisational relationships via identity issues. Third, as discussed in Section 2.2.4, social identity researchers have identified different identification types (Ashforth, 2001, Ashforth & Humphrey, 1997, Dukerich, 1998, Elsbach, 1999, Home & Griffeth, 1995, Kreiner & Ashforth, 2004). These identification types can help SCM researchers understand different relationship structures in supply chains from the psychological perspective.

Lastly, the social identity approach can address the dynamics, complexity, and changes involved in inter-organisational relationships in sustainable SCM (Pagell et al., 2010; Touboulic & Walker, 2015a; Touboulic & Walker, 2015b). More specifically, the contextual development of identity formation (Grotevant, 1987) and the instability and fluidity of identities (Corley & Harrison, 2009; Cornelissen et al., 2007; Gioia et al., 2000; Grotevant, 1987; He & Baruch, 2009) can provide SCM researchers profound understandings of the dynamics and complexity of inter-organisational relationships in sustainable SCM. In addition, the social identity literature on multiple identities can help SCM researchers understand more about supply chain inter-organisational relationships in the context of change management.

2.3 Social identity and sustainability in supply chains

Section 2.3 discusses the overlapping area of social identities and sustainable SCM, which is indicated by shadows in Figure 9. Section 2.3.1 reviews SCM research applying the social identity approach. Section 2.3.2 discusses sustainability research applying the social identity approach. Section 2.3.3 discusses the relevant literature gaps and research opportunities.

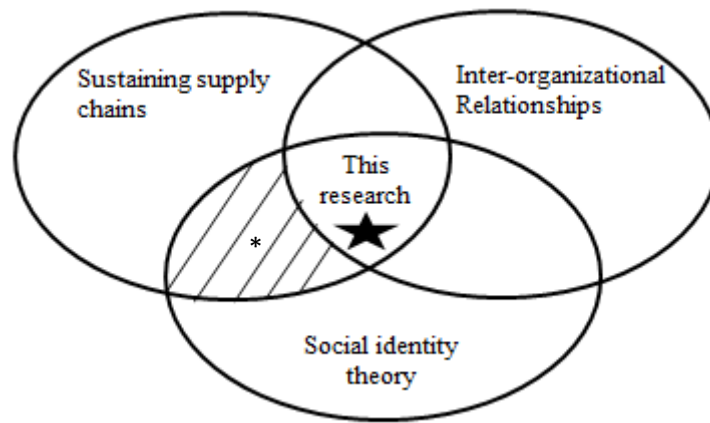


Figure 9 The research scope: social identities and sustainable SCM

* The shaded area indicates this particular section in the thesis

2.3.1 Supply chain management and the social identity approach

For the recent years, there has been an increasing research interest in applying social identity theory in SCM research. For instance, Shanley and Peteraf (2004b: 474) discuss the role of social identification in the formation of a vertical chain. They define a vertical chain as “the series of linked supplier–buyer relations extending from raw materials to the end usage of a product.” They argue that social identification can be used as a basis for group formation, increasing members’ attachment to groups. Ireland and Web (2007) suggest that generating a common supply chain identity is one of the strategies for firms to balance trust and power in the supply chain. They argue that sharing a common supply chain identity can foster goodwill trust, influence the necessary cooperation and inter-organisational learning throughout the supply chain. In addition, the relational benefits of a supply chain identity can translate into economic gains (for example, reduced cycle times and lower transaction costs, which are brought by greater cooperation and improved organisational learning). Similarly, Min et al. (2008) argue that supply chain identity salience can increase social capital (such as trust, commitment, relationship quality) in the supply chain. There is not an explicit definition of “supply chain identity”. Min et al. (2008: 285) provide a definition on “supply chain identity salience”: “we define supply chain identity salience as the extent to which a firm senses that it belongs to a particular supply chain”.

Besides the above conceptual proposals about a supply chain identity, there are also a few empirical pieces of evidence on the role of the social identification in parts of the supply chain relationships. For example, the case study on Toyota (Dyer & Nobeoka, 2002) shows that suppliers’ high identification with their buyer

(Toyota) increases the mutual exchange of valuable tacit knowledge, hence fosters inter-firm learning. A survey on the German automobile industry shows that supplier-to-buyer identification increases mutual trust, supplier relation-specific investments, and information exchange, and hence fosters superior operational performance (Corsten et al., 2011). But these studies only indicate the benefits brought by identification and haven't provided the mechanism to explore how the identification happens. Meanwhile, they focus on customer-supplier relationships, which are not adequate for sustainability implementation in supply chains.

Recognising the benefits brought by a supply chain identity, there is an increasing number of supply chain researchers who advocate the integration of social identity theory into supply chain management research. For example, in their interview, Jamali et al. (2011) find that one of the success factors in supply chain management is generating a common supply chain identity among the supply chain members. They argue there is a strong correlation between supply chain identity and two other key factors: knowledge sharing and trust. Ketchen and Hult (2011) appeal for integrating some tools of organisational science into supply chain management. They argue that supply chain identity serves as a "valuable, rare, inimitable and non-substitutable resource within supply chains" (Ketchen & Hult, 2011: 15).

2.3.2 Social identity and sustainability

As mentioned in Section 2.2.3, Barney et al. (2011) argue that organisational identity can serve as a valuable resource for firms. Similarly, Fiol (1991; 2001) argues that an organisational identity can be regarded as a core competency leading to sustained competitive advantages. More specifically organisational identity can shape organisational members' understandings and interpretations of sustainability (Linnenluecke et al., 2009). Colbert and Wheeler (2002) propose the concept of a sustainable organisational identity. They suggest an organisational identity defines the context within which leaders respond to sustainability issues. Likewise, Chen (2011) proposes the concept of a green organisational identity. He proposes that green organisational identity is positively associated with the two key factors for sustainable SCM: environmental culture

(Carter & Rogers, 2008; Plumwood, 2002) and environmental leadership (Fullan, 2003; Hargreaves & Fink, 2006).

2.3.3 Literature gap and research opportunities

In spite of the increasing interest in supply chain identity studies, the literature in this field is exploring an explicit definition of supply chain identity and how a supply chain identity can enhance social capital and influence business integration in supply chains. There is a tendency to presume a singular, central supply chain identity with which all the supply chain members may identify (Ireland & Web, 2007; Ketchen & Hult, 2011; Min et al., 2008). Similarly, the majority of sustainability literature also assumes the existence of a sustainable organisational identity (Chen, 2011) without considering that an organisation has other important identities, especially given that sustainability is a newly added content in the organisation's agenda. Therefore, there is a considerable lack of understanding the dynamics and complexity of supply chain relationships and the complexity of social identity issues.

As mentioned in Section 2.1.3 and Section 2.2.3, both inter-organisational relationships and social identity processes are dynamic and developmental. In addition, the changes and uncertainties involved in sustainable SCM increase the complexity and instability to inter-organisational relationships/social identification processes in supply chains. Touboulic and Walker (2015b) argue that it is too idealistic to believe that truly collaborative relationships can be developed and maintained easily in supply chains, especially in the context of sustainable SCM, which is considered as a change process. Similarly, it's too simplistic to believe there exists a supply chain identity which is salient for all the links in supply chains.

Therefore, the researcher argues that a more holistic and developmental view is needed in exploring the social identity issues in sustainable SCM. First, the identity formation, communication, and regulation processes in supply chains need fluidity and ambiguity to some extent (Corley & Gioia, 2004; Gioia et al., 2010; Ketchen & Hult, 2011). Second, different identification types might be needed for different contexts, just like different expectations out of supply chains need different relationship types (Vasquez, 2011). Third, the salience of identities is defined by identity comparisons, which influence and are influenced by organisations' relationships with their stakeholders (Ashforth & Mael, 1989;

Dutton & Dukerich, 1991; Gioia et al., 2010; Whetten et al., 1992). Hence, it is reasonable to be open to exploring all the identity issues that are related to inter-organisational relationships in the context of the sustainable SCM. Figure 10 illustrates possible identities related to sustainable SCM.

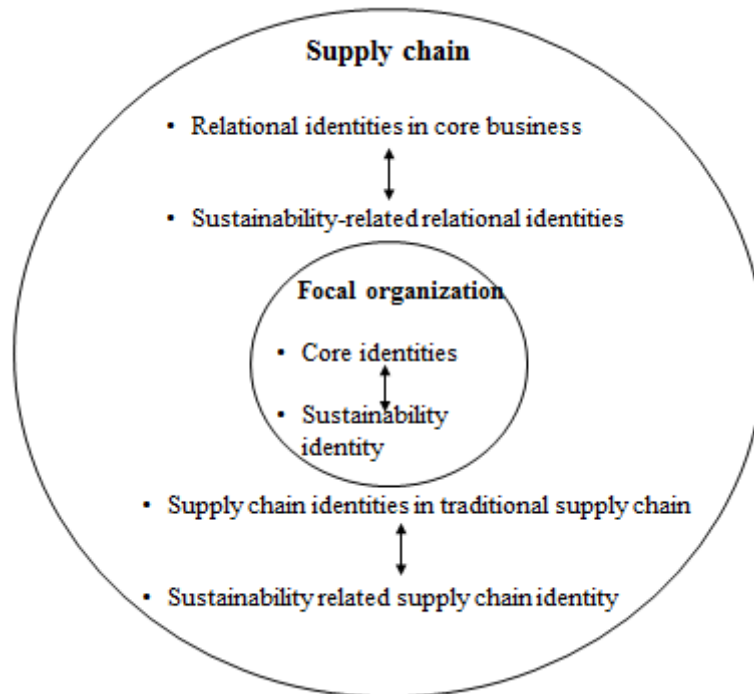


Figure 10 Possible identities in sustainable SCM

As shown in Figure 10, there potentially exist three levels of identities in sustainable SCM from the focal organisation's perspective: the organisational identities of the focal organisations, relational identities in their dyadic inter-organisational relationships and shared identities at the supply chain level. As discussed in Section 2.2.3, organisational identities influence and are influenced by its relationships with its stakeholders. Since sustainability brings changes to both the focal organisation and the supply chain (Pagell et al., 2010; Touboulic & Walker, 2015 a; Touboulic & Walker, 2015b), there might exist multiple identities in the focal organisations, its dyadic relationships with stakeholders and its supply chain. The salience of identities is defined by the identity comparison and negotiation (Ashforth & Mael, 1989; Dutton & Dukerich, 1991; Gioia et al., 2000; Gioia et al., 2010; Whetten et al., 1992) among supply chain stakeholders. After reviewing the literature, Section 2.4 provides a summary of this chapter. It provides a synthesis of the literature. After that, it proposes a conceptual framework, research questions, and propositions.

2.4 Summary

2.4.1 Synthesis

The synthesis of the literature (Figure 11) summarises the research focus, major themes, and theories that have been discussed in this chapter, and supplies an overview of the linkages between the focus, themes, and theories.

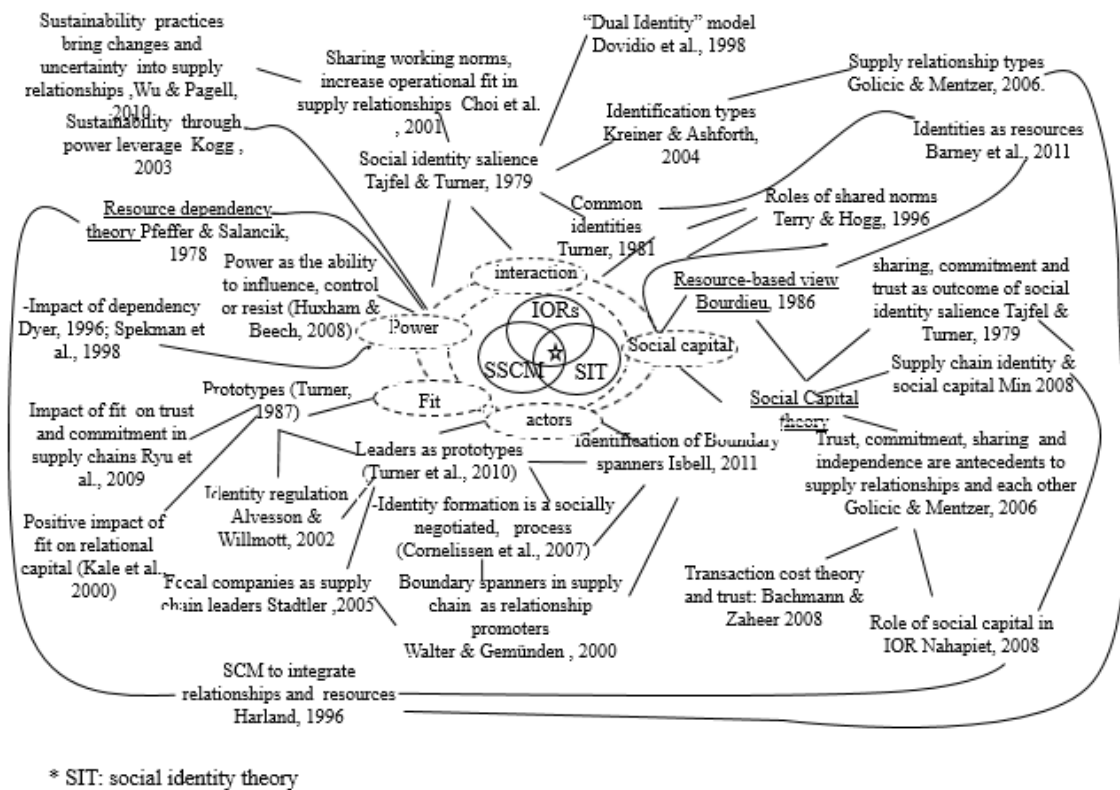


Figure 11 Synthesis of the literature

According to Figure 11, the focus of this research is the inter-organisational relationships in the context of sustainability implementation in supply chains. The theoretical lens adopted is social identity theory. More specially, the central challenge for the inter-organisational relationships in this research is the coordination and cooperation among supply chain members involved in sustainability implementation, for the purpose of value. Unlike many of the supply chain relationships studies which focus on the dyadic relationships, or claim (and often actually not) to be at the chain level or the net level, the current study focuses on inter-organisational relationships in sustainability implementation in the supply chain, which may consist of members (boundary spanners) from different links throughout the whole supply chain/net.

There are five themes that emerged from the literature: 1) power /interdependence; 2) compatibility /fit; 3) interaction; 4) relational capital (sharing, commitment, trust, and communication); and 5) roles of actors (leaders and boundary spanners). These five themes are reflected in the antecedents and processes and outcome of inter-organisational relationships. Social identity processes can be viewed as the psychological level of the inter-organisational relationship processes.

Power/interdependence and compatibility/fit are important for both inter-organisational relationships and social identities, which define the interactions in the social identification and inter-organisational relationships processes. The power at macro level derives from resources, relative importance, and structural considerations. The macro-level power is normally difficult to be changed within a short time (Huxman & Beech, 2008). But the micro-level power occurs in day-to-day business relationships, which may be used as a means of identity regulation in terms of creating social categories and affiliation (Alvesson & Willmott, 2002).

There are several other antecedents to social identity activities: the distinctness of the group, the continuity of the prototypes, and the affiliation (Tajfel & Turner, 1979; Turner, 1987). These are the “soft components” that can be influenced by leaders through various proactive identity regulation activities. The interaction theme of social identity includes the dynamics and development of the identity (Cornelissen et al., 2007), the types of the identification (Kreiner & Ashforth, 2004), and the multiple levels of identities (Ashforth & Mael, 1989). Both the leaders (Turner et al., 2011) and boundary spanners (Isbell, 2011) play important roles in inter-group/inter-organisational identification. One important outcome of social identification is the development of relational capital, including commitment, trust, and the sharing of goals, norms, information, and actions (Tajfel & Turner, 1979; Turner, 1987).

In the inter-organisational relationships and SCM literature, besides power and compatibility, there are other three antecedents to inter-organisational relationships: commitment, trust, and sharing. The levels of commitment, trust, and sharing are the outcomes of the social identification process. The link between social identity theory and inter-organisational relationships theory

indicates that researchers can look at inter-organisational relationships in depth if the social identity approach is adopted as the theoretical lens. The interaction theme of inter-organisational relationships includes the following topics: the dynamics and development of the inter-organisational relationships (Cropper & Palmer, 2008), and the structures of the relationships (Menzter et al., 2000). Again, leaders (Stadtler, 2005; Uhl-Bien, 2006) and boundary spanners (Seabright, 1992, Walter & Gemuden, 2000, Zaheer et al., 1998) play crucial roles in inter-organisational relationships. The outcomes of inter-organisational relationships are the value created and the performance. More specially, in the context of SCM, the outcomes of inter-organisational relationships are resources, output, and flexibility in the supply chain (Beamon, 1999).

Besides the above five themes, the themes of complexity and change also emerge from the literature of inter-organisational relationships and social identities. Sustainable SCM can be regarded as a process of change management (Pagell & Wu, 2009; Touboulic & Walker, 2015a). Touboulic and Walker (2015b) identify the focal organisations' perceived suppliers' resistance to change as the most crucial barriers to sustainable SCM. With the changes (Pagell & Wu, 2009; Touboulic & Walker, 2015a) and risks (Wu & Pagell, 2011) rising in sustainable SCM, the inter-organisational relationships in sustainable SCM are complex and dynamics. Since the formation and development of social identities are heavily influenced by social contexts (Grotevant, 1987; Phinney, 2008), the complexity and dynamics of inter-organisational relationships in sustainable SCM are the specific contexts under which the researcher examines the social identity issues in sustainable SCM. The following social identity literature provides profound understandings of the complexity and dynamics of inter-organisational relationships in sustainable SCM: 1) identity comparisons between multiple identities (Pratt & Corley, 2007; Pratt & Kraatz, 2009; Sillince & Brown, 2009); 2) the fluidity and dynamics of identities (Corley & Harrison, 2009; Cornelissen et al., 2007; He & Baruch, 2009; Ketchen & Hult, 2011).

The links among the literature imply that the social identity approach can be an appropriate theoretical lens to explore the mechanisms underlying how and why organisations in supply chains cooperate and coordinate with each other in the context of sustainability implementation. Table 2 summarises the key constructs of these five themes

Topics	Inter-organisational relationships	Supply Relations	Social identity
Power and inter-dependency	Power as the ability to influence, control or resist (Huxham & Beech, 2008) Resource dependence theory (Pfeffer & Salancik, 1978) Source of power (French & Raven, 1959) Micro and macro level of power (Huxham & Beech, 2008) Traction cost theory (Williamson, 1985)	Reward/coercive power leads to desire to exit relationship; referent/expert power leads to trust and cooperation (Darpiran & Hogarth-Scott, 2003) Impact of interdependence (Dyer, 1996; Spekman et al., 1998) Sharing enhances mutual dependency (Mentzer et al., 2001); dependence can create trust (Crook & Combs; 2007) Sustainability in supply chains through power leverage. (Kogg, 2003)	· The prestige and distinctness (referent power) of the group are antecedents to social identity salience (Tajfel & Turner, 1979) · Group categorization and affiliation are antecedents to social identity salience (Alvesson & Willmott, 2002), which can be achieved by the relational power at micro level. · Identity as a resource (Barney et al., 2011)
Compatibility/ Fit	Positive impact of fit on relational capital (Kale et al., 2000) Dimensions of fit (Harrigan, 1986; Parkhe, 1993).	Strategic fit and operational compatibility as the antecedents to supply relationships and their impact on trust and commitment (Ryu et al., 2009)	· Prototype fit (Tajfel & Turner, 1979; Turner, 1987) is an antecedent to social identity salience (Turner, 1987)
Interaction	Change, dynamics and temporality in inter-organisational relationships (Cropper & Palmer, 2008) Individual-collective continua of inter-organisational relationships (Cropper et al., 2008)	Complexity and dynamic of supply relationships (Croom, 2000) The relational continuum (from operational partnering to strategic partnering) in supply chains (Mentzer et al., 2000) Sharing working norms, increase operational fit in supply relationships (Choi et al., 2001). Sustainability brings uncertainty and decision boundary into supply relationships (Wu & Pagell, 2010)	· Identity formation is a socially negotiated, dynamic and complex process (Cornelissen et al., 2007) · Person-group continua of self-concept (Hogg. & Abrams, 1988) · Different identification types and levels of trust, commitment and interdependence (Kreiner & Ashforth, 2004). · Creating common identities can solve inter-organisational conflicts (Turner, 1981)
Relational capital (e.g. sharing, commitment, trust)	Role of relational capital in inter-organisational relationships (Nahapiet, 2008); Relational capital and resource-based view (Bourdieu, 1986) Transaction cost theory and trust: Bachmann & Zaheer (2008)	Trust, commitment and dependence are antecedents to supply relationships and each other. (Golicic & Mentzer, 2006) Relationship type as the group of relationships that share common governance characteristics (Golicic & Mentzer, 2006).	· Sharing, commitment and trust as outcome of social identity salience (Tajfel & Turner, 1979) · Shared norms have strong impact on collaborative behaviours (Terry & Hogg, 1996) · Supply chain identity salience fosters relational capital in supply chains (Min et al., 2008)
Roles of actors (leaders and boundary spanners)	Relational leadership (Uhl-Bien, 2006); Intervention to inter-organisational relationships (Gray, 2008); Boundary spanners in inter-organisational relationships (Seabright, 1992; Zaheer et al., 1998)	Focal organisations as supply chain leaders (Stadtler, 2005) Relationship management as the essences of SCM (Harland, 1996) Boundary spanners as relationship promoters (Walter & Gemünden, 2000)	· Leaders can proactively form and embed organisational identity (Turner et al., 2010) · Identity regulation (Alvesson & Willmott, 2002) · Identification of boundary spanners in inter-organisational collaborations (Isbell, 2011)

Table 2 The key constructs of the common themes

2.4.2 Conceptual framework

Figure 12 presents an initial conceptual framework to guide the research. It follows the similar patterns that have been used to explore the inter-organisational relationships in supply relationships (Figure 4) and the social identity activities (Figure 7).

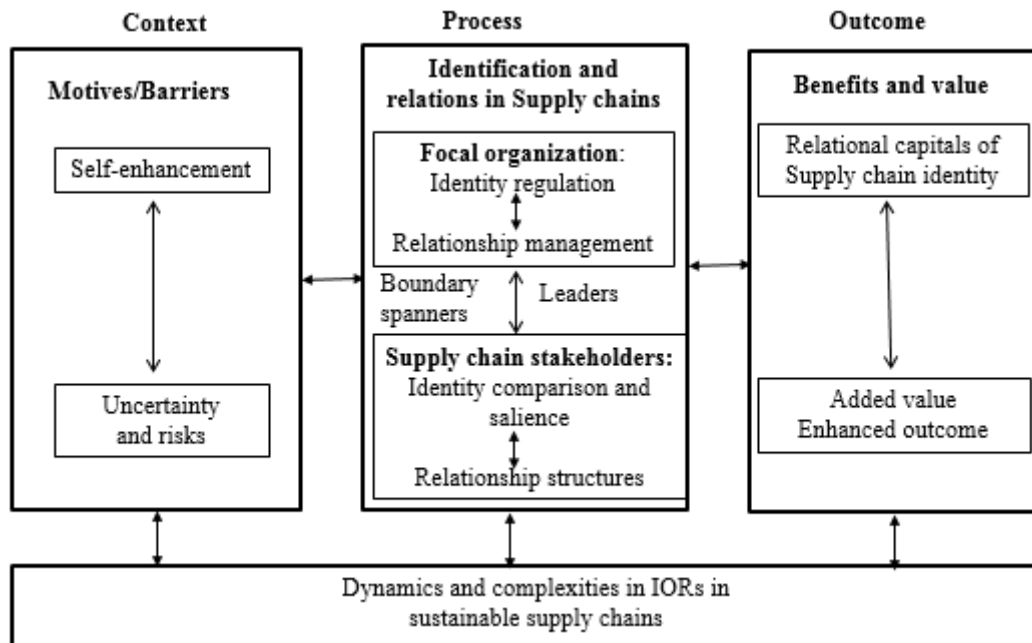


Figure 12 An initial conceptual framework

As indicated in Figure 12, the dynamics and complexities of organisational relationships in sustainable SCM is the social context for this research. These dynamics and complexities will be explored via the theoretical lens of the social identity approach. The three columns present the contexts, processes, and outcomes of organisational relationships in sustainable SCM. The first column demonstrates the motives and barriers for members to participate in sustainability implementation in supply chains. Value-addition and self-enhancement are the motives. Uncertainty can be a motive and a barrier at the same time. The emergent themes of “power/interdependence” and “compatibility” may be included in this column, which influences the motives and barriers to sustainable SCM.

The second column presents the process of inter-organisational relationships at the psychological level (social identity) and the operational (including strategic and behavioural) level. As shown in this column, organisational relationships are

not machine-like, and individuals (both leaders and other boundary spanners) play important roles in the psychological and operational levels of organisational relationships. Therefore, the emergent themes of “interaction” and “roles of actors (leaders and boundary spanners)” are included in this column.

As shown in the third column, the outcome of organisational relationships is the relational benefits (trust, commitment, and sharing) at the psychological level, and enhanced outcome and performance (output, resource, and flexibility) at the operations level. Therefore, the emergent theme “social capital” is included in this column.

2.4.3 Research questions

The purpose of this research is to explore the mechanisms of how and why members of the supply chain cooperate and coordinate with each other in sustainability implementations in supply chains. More especially, it will examine the organisational relationships during the sustainable SCM practices initiated by large international institutions, using the social identity approach as the theoretical lens. Based on the literature review, the following research questions are proposed:

RQ1 How do focal organisations engage their supply chain stakeholders in sustainable SCM using social identity thinking?

RQ2 What are the specific identity issues relating to organisational relationships in a sustainability context?

The formation of these research questions is based on the following two considerations. First, the fundamental questions that organisational identity literature addresses are how do organisations create and communicate their identities, and how do organisational members respond to these identities (Bartels, et al., 2007; Dowling & Otubanjo, 2011). Second, the research of social identities in supply chains is still at its early stage. Therefore, it makes sense to stick to these fundamental questions in the current research project.

2.4.4 Propositions

There are four propositions based on the literature review. The first proposition is about the importance of a shared identity in sustainable SCM. The organisational relationships in supply chains are complex (Pfeffer, 1997; McAdam & McCormack, 2001). In comparison to organisational relationships in traditional supply chains, the organisational relationships in sustainable SCM are even more complex with changes and risks brought by sustainable implementation in supply chains (Biondi et al., 2002; Day, 1998; Matos & Hall, 2007; Pagell & Wu, 2009; Smith et al., 2010; Wu & Pagell, 2011). Therefore, sustainable SCM needs a far more cooperative approach than traditional supply chains (Seuring & Müller, 2008a; Seuring & Müller, 2008b; Sharfman et al., 2009). A shared identity or collective identity would generate commitment, trust, and sharing in the organisational relationships, thus increasing inter-organisational cooperation (Diani, 2013; Hardy et al., 1998; Hardy et al., 2005; Sammarra & Biggiero, 2001; Ybema, 2010). Notably, the fluidity of identities and identity ambiguity help organisations to confront changes (Corley & Gioia, 2004; Gioia et al., 2000). Therefore, in order to ensure identity ambiguity/fluidity required by the complexity and dynamics of organisational relationships in sustainable SCM, the expression of “shared identity” is used here rather than “supply chain identity” proposed by some SCM researchers (Ireland & Web, 2007; Jamali et al., 2011; Ketchen & Hult, 2011; Min et al., 2008).

Proposition 1 In sustainable SCM, a shared identity would generate trust, commitment, communication, and sharing in supply chains.

Second, leadership is a key enabler and/or barrier of organisational relationships in sustainable SCM (Ageron et al., 2012; Gavronski et al., 2011; Min & Galle, 2001; Walker & Jones, 2012). Therefore, leaders in supply chains need to manage the supply relationships proactively through relational leadership (Uhl-Bien, 2006). In terms of social identity issues, leaders can proactively influence the social identification of the internal and external stakeholders thus inter-organisational relationships via proactive identity regulations and communications (Alvesson & Willmott, 2002; Empson, 2004; Faulconbridge et al., 2012; Gotsi et al., 2010).

Proposition 2 Leaders play an important role in regulating and communicating identity issues in sustainable SCM.

Third, boundary spanners play an important role in inter-organisational relationships in supply chains, especially in the context of change management (Christopher, 2005). More specifically, supply/procurement managers (as boundary spanners) act as negotiators, facilitators, supplier's advocates, and educators in inter-organisational relationships in supply chains (Wu et al., 2010). Social identity processes are highly relational and comparative (Abrams & Hogg, 1999; Hogg & Abrams, 1996), which influence and are influenced by organisations' relationships with internal and external stakeholders. Identity salience is defined by various kinds of identity comparisons of individuals and of the organisations which they represent. These comparisons affect the stakeholders' attitudes and behaviours (Ashforth & Mael, 1989; Dutton & Dukerich, 1991; Gioia et al., 2000; Gioia et al., 2010; Whetten et al., 1992) and thus the performance of inter-organisational relationships. Therefore, boundary spanners, such as procurement staff, play an important role in social identity processes during sustainability implementation in supply chains.

Proposition 3 Boundary spanners, such as procurement staff, play an important role in social identity processes during sustainability implementation in supply chains.

Lastly, like organisational leaders and other boundary spanners (e.g. procurement managers), external stakeholders also play an important role in inter-organisational relationships in sustainable SCM. Organisations' identities influence and are influenced by its relationships with its external stakeholders (Albert et al., 2000). Organisations' identities emerge and are developed over time through organisations' complex interactions with their external stakeholders (Gioia, 1998; Scott & Lane, 2000). External stakeholders' attitudes towards the focal organisations are influenced by these stakeholders' various identity assessments and comparisons (Ashforth & Mael, 1989; Dutton & Dukerich, 1991; Gioia et al., 2000; Gioia et al., 2010; Whetten et al., 1992).

Proposition 4 External stakeholders play an important role in social identity processes during sustainability implementation in supply chains.

Chapter 3 now deals with the research methods.

CHAPTER 3: RESEARCH METHODS

This chapter examines the choice of research strategy and methods. It also discusses how the chosen research strategy and methods address the research questions proposed in Chapter 2. The discussion in this chapter adopts the approach in Figure 13 (Easterby-Smith et al., 2008; for the similar approach, also refer to Morgan, 2007). Section 3.1 reviews the ontological and epistemological consideration for research in sustainable SCM. It also discusses the philosophical stance of the researcher. Section 3.2 discusses and explains the research strategy and design. Section 3.3 introduces the methods in detail. Section 3.4 presents an ethical consideration of this research. Section 3.5 summarises.

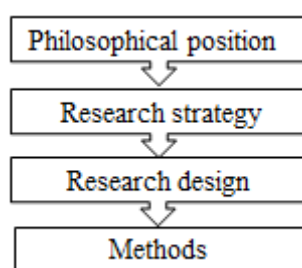


Figure 13 Research approach
(Summarised from Easterby-Smith et al., 2008)

3.1 Classification of philosophical perspectives

Easterby-Smith et al. (2008) emphasise the importance of philosophical perspectives in management research. They argue that philosophical issues (with ontology and epistemology as the two key elements) have important impacts on the quality of management research, and are central to the notion of research design. In detail, understanding philosophical issues related to the research helps researchers to 1) clarify research designs; 2) understand the limitations of particular approaches. Easterby-Smith et al. (2008) argue that ontology is the starting point for most of the debates among philosophers.

Fleetwood (2005: 1) emphasises the importance of ontology. Ontology is the philosophical assumption about the nature of reality and is concerned with the question of being and knowing (Easterby-Smith et al., 2008). The different assumptions regarding ontology reflect different world views and imply different grounds for knowledge about the social world, and thus define different epistemological and methodological positions (Fleetwood, 2005; Morgan &

Smircich, 1980). However, Fleetwood (2005: 1) notices that much debate on philosophical stances of organisation studies “is mired in ontological ambiguity – i.e. lack of clarity, imprecision, conceptual slippage and confusion vis-à-vis matters ontological”.

In the field of supply chain management, Oral (2009) emphasises the importance of ontological and epistemological issues. He argues that in the research of green supply chain management, ontology guides what kind of knowledge needs to be produced, and epistemology deals with how such knowledge can be created. He warns that “if ontological issues are not taken into consideration while creating knowledge, resulting knowledge might not match the ‘green’ aspect of supply chain management” (Oral, 2009: 2).

In response to the importance of philosophical stances in management research (Easterby-Smith et al., 2008; Fleetwood, 2005; Oral, 2009), Section 3.1.1 discusses the major ontological positions and their respective epistemologies; Section 3.1.2 reviews the ontological and epistemological consideration in (sustainable) SCM research. Section 3.1.3 clarifies the philosophical stance for this research.

3.1.1 Major ontological and epistemological stances

There are controversies over the classification of philosophical perspectives in the literature. For example, Easterby-Smith et al. (2008) notice that there are two traditions: Positivism and Social Constructionism. Some researchers classify three categories: Positivist, Interpretivist, and Critical Studies (Orlikowski & Baroudi, 1991); or Positivist, Interpretivist, and Interventionist approaches (Mingers, 2003). Guba and Lincoln (1994) define four paradigms for qualitative research: Positivism, Post-positivism, Critical Theory, and Constructivism. Some researchers take a “continuum” view towards the philosophical perspective. For example, Morgan and Smircich (1980) presents Objectivist and Subjectivist as a continuum (Table 3). Similarly, Galliers (1993) proposes a positivism-postpositivism continuum. In all these views regarding philosophical perspectives, there are two main perspectives: Positivism (Objectivist approach) and Interpretivism (Subjectivist approach).

Table 3 demonstrates the general overview of the relationships among ontology, human nature, epistemology, and methodology in contemporary social science (Morgan & Smircich, 1980). As shown in Table 3, there are two contrasting traditions of how social science research should be conducted: Objectivist approaches (Positivism) and Subjectivist approaches (Interpretivism). Between these two extremes, critical realism’s ontology “is offered as a more fruitful alternative” (Fleetwood, 2005: 1). The following paragraphs use the Morgan and Smircich (1980) model demonstrated in Table 3 to discuss the different philosophical stances and the relevant research methods in management research.

Subjectivist approach to social science
Objectivist approach to social science

Items	1	2	3	4	5	6
Core ontological assumption	Reality as a projection of human imagination	Reality as social construction	Reality as realm of symbolic discourse	Reality as contextual field of information	Reality as concrete process	Reality as concrete structure
Assumption about human nature	Man as pure spirit, consciousness, being	Man as a social constructor, the symbol creator	Man as an actor, the symbol user	Man as an information processor	Man as an adaptor	Man as a responder
Basic Epistemology stance	To obtain phenomenological insight, revelation	To understand how social reality is created	To understand patterns of symbolic discourse	To map contest	To study systems, process, change	To construct a positive science
Some favourite metaphors	Transcendental	Language game, accomplishment, text	Theatre, culture	Cybernetic	Organism	Machine
Research methods	Exploration of pure subjectivity	Hermeneutic	Symbolic analysis	Contextual analysis of Gestalten	Historical analysis	Lab experiments, surveys

Table 3 Basic assumptions characterising the subjective-objective debate (Morgan & Smircich, 1980: 492)

Positivism

The ontology in Column 6 of Table 3 views the social world as a concrete structure and encourages the epistemology of positivism. Positivism assumes that reality as objective truth (Astley, 1985; Astley & Zammuto, 1992; Wicks & Freeman, 1998), which can be described and measured by properties independent of the researcher (Checkland, 1981; Myers, 2002). Positivists emphasise the empirical analysis of concrete relationships in an external social world and encourage “a concern for an objective form of knowledge that specifies the precise nature of laws, regularities, and relationships among phenomena

measured in terms of 'social facts'" (Morgan & Smircich, 1980: 493). The Positivist Approach supports the rules of formal logic and the hypotheticodeductive logic and involves the manipulation of theoretical propositions (Lee 1991). There are two major challenges for researchers to apply the positivist approach in organisational studies. First, organisational phenomena are normally socially conditioned (Mingers, 2000), and the empirical basis for positivism requires organisational researchers' great efforts in making the study of organisations fit the natural-science model, so as to make organisational research become truly scientific (Lee, 1991; Mingers, 2000). Second, the empiricist tradition within natural science is based solely on constant conjunctions of empirical regularities. Hence, it leads to few possibilities of deeper underlying explanations of the phenomena and ends up with a very impoverished view of explanatory theory (Mingers, 2000).

Interpretivism

Columns 1-3 of Table 3 present the Interpretivist School (the Subjectivist Approach). Ontologically speaking, Interpretivism conceives the world as "an emergent social process" and "an extension of human consciousness and subjective experience" (Burrell & Morgan 1979: 253). Interpretivism views reality as social products, hence incapable of being understood independent of the social actors that construct and make sense of that reality (Orlikowski & Baroudi, 1991). Interpretivism entails a more normative approach to knowledge (Burgess et al., 2006). It emphasises the importance of understanding the processes through which human beings create and associate their own subjective and intersubjective meaning during their interaction with their world (Morgan & Smircich, 1980; Orlikowski & Baroudi, 1991). The interpretive research aims to understand the intersubjective meanings embedded in social life (Gibbons, 1987). In detail, interpretive research attempts to "understand how members of a social group, through their participation in social processes, enact their particular realities and endow them with meaning, and to show how these meanings, beliefs, and intentions of the members help to constitute their social action" (Orlikowski & Baroudi, 1991: 13). There are three major epistemological stances in the

Interpretive School: 1) phenomenology sociology, 2) hermeneutics, and 3) ethnography.

The ontology in Column 1 of Table 3 regards reality as a projection of human imagination and is in favour of an epistemology of phenomenology (Morgan & Smircich, 1980). Rooted in 20th-century European philosophy (for instance, Heidegger, 1962; Husserl, 1969; Merleau-Ponty, 1996; Schutz, 1967), phenomenology uses thick description and close analysis of lived experience to understand how meaning is created through embodied perception (Sokolowski, 1999; Starks & Trinidad, 2007; Stewart & Mickunas, 1990). Phenomenology contributes to a deeper understanding of lived experiences (Stark & Trinidad, 2007). However, adopting a phenomenology approach to research is time-consuming (Caelli, 2001; Plager, 1994). In addition, knowledge generated by phenomenology rests within subjective experiences, and depends on researchers' ability to "understand the way in which human beings shape the world from inside themselves (Morgan & Smircich, 1980: 497).

The ontology in Column 2 of Table 3 regards reality as a social construction and calls for an epistemology of hermeneutics (Morgan & Smircich, 1980). Hermeneutics focuses on analysing the processes through which reality is created (Morgan & Smircich, 1980) and traditionally emphasises the metaphors of text (Morgan & Smircich, 1980; Myers, 1994), accomplishment (Stewart & Philipsen, 1984) and language games (Winch, 2002). According to Prasad (2002: 23), in contemporary hermeneutics, the meaning of the term "text" has been expanded, to include "organisational practices and institutions, economic and social structures, culture and cultural artefacts, and so on". Organisational researchers using hermeneutics need to pay attention to the context and history of the organisational phenomenon being studied. Prasad (2002) argues that hermeneutics is a deeply self-reflexive and self-critical process. Hence, researchers using hermeneutics are required to question themselves continually and test their own prejudices.

The ontological position in Column 3 of Table 3 characterises reality as symbolic discourses and implies the epistemology of ethnography. Ethnography emphasises the understandings of the nature and patterning of the symbols

which people negotiate their social reality (Morgan & Smircich, 1980). Ethnography involves research investigating deeply into organisational (Hargadon & Sutton, 1997) and inter-organisational phenomena (Carter & Rogers, 2008). Carter and Rogers (2008) highlight the importance of ethnography in sustainable SCM research. They argue that via full-time, onsite participation and observation of firms and their supply chains, sustainable SCM researchers can gain a deeper understanding of the beliefs and motivations of the firms engaging in supply chain sustainability implementation. Recognising the contribution of ethnographic inquiry to organisational research, Anderson (1994) argues ethnography is a complex and subtle practice.

Items	Positivism	Interpretivism
Strengths	Can provide wide coverage; Potentially fast and economical; Easier to provide justification of policies.	Good for processes, and meanings; Flexible and good for theory generation; Data collection is less artificial.
Weaknesses	Inflexible and artificial. Not good for the process, meanings, and theory generation. The implication for action not obvious.	Can be very time-consuming; Analysis and interpretations are difficult; May does not have credibility with Policymakers.
The observer	Must be independent	Is part of what is being observed
Human interests	Should be irrelevant	Are the main drivers of science
Explanations	Must demonstrate causality	Aim to increase general understanding of the situation
Research progress through	Hypotheses and deductions	Gathering rich data from which ideas are induced
Concepts	For be defined do that they can be measured.	Should incorporate stakeholder perspectives
Units of analysis	Should be reduced to simplest terms	May include the complexity of "whole" situations
Generalisation through	Statistical probability	Theoretical abstraction
Sampling requires	Large numbers selected randomly	Small numbers of cases chosen for specific reasons

Table 4 Summary of Positivism and Interpretivism
(Adapted and summarised from Easterby-Smith et al. : 59 and 73)

After reviewing Positivism and Interpretivism, Table 4 summarises the contrasting implications of these two extremes. As illustrated in Table 4, both positivism and interpretivism have their own strengths and weaknesses. Hence, Critical Realism is introduced as a fruitful alternative between these two extremes (Fleetwood, 2005; Hudson, 1988).

Critical Realism

Both of these two ontological positions in Column 4 and Column 5 of Table 3 imply and epistemology of critical realism. There are different views and

approaches to realism (Hunt, 2000). Sayer (1992) is regarded as the key figure in the Critical Realism movement (Hunt, 2000: 286). Easton (2010: 119) argues that Sayer's account of critical realist ontology "is the most detailed and comprehensive." Critical Realism is a modified version of positivism (Chia, 2002). It assumes that there exists a reality out there independent of observers, which can be socially constructed, but not entirely so (Easton, 2010). Specifically, Critical Realism distinguishes between the actual events created by the real world and the empirical events actually captured and recorded by people (Easton, 2010). Mingers (2003) recommends that Critical Realism is highly appropriate as a philosophy for operations research because of the following three reasons: 1) Critical Realism enables operations researchers to take a basically positivist stance, whilst accepting the major critiques of naive positivism; 2) it addresses both natural and social science, and thus encompasses both hard and soft (and critical) approaches; and 3) it potentially fits well with the reality of operations research as an applied discipline. After briefly introducing the major ontological positions and their respective epistemologies, Section 3.1.2 reviews the key philosophical consideration for (sustainable) supply chain management research.

3.1.2 Philosophical considerations for sustainable SCM research

SCM draws on two branches of system theory: the hard system and the soft system views (Naim et al., 2003; Peck, 2005). The hard system view dominates SCM research, which leads to the prevalence of positivism in SCM research (Peck, 2005). In a structured literature review of SCM publications, Burgess et al. (2006) also find the strong usage of the positivist research paradigm. They argue that the dominance of positivism in SCM research has the potential to restrict the field of SCM to a single paradigm, and prevent the wider development and acceptance of SCM research. Therefore, they suggest that SCM researchers employ a greater plurality of paradigmatic research stances and adopt more non-positivist methods, so as to accelerate the theoretical development of SCM (see also the similar argument of Naslund, 2002; New, 1997; Voss et al., 2002). In comparison to the positivist approach driven by the hard system view, the open system view is promoted by a number of researchers (for instance, Demchak,

1996; Peck, 2005). They urge researchers to address the SCM issues in context and employ holistic and interdisciplinary perspectives.

In the field of sustainable SCM, Seuring and Müller (2008a: 1706) argue that the comprehension of sustainable development is often very simplistic, fragmented, and mostly one-dimensional (environmentally based). They also find that sustainable SCM publications seldom discuss “whether a more technical, positivist comprehension or a social science-based approach is taken.” Taking the above philosophical consideration for sustainable SCM research into consideration, Golicic et al. (2005) suggest that SCM researchers need a more balanced approach using more interpretive approaches in comparison to the traditional naive positivist approach in the study of SCM.

3.1.3 The philosophical stance for this research

This section discusses the ontological assumptions for this research. From the perspective of social identity theory, this research studies inter-organisational relationships in the context of supply chain sustainability. The social identity perspective provides a social psychological analysis of the role of self-conception in group membership, which is motivated by needs for self-enhancement and uncertainty reduction. Notably, the factors related to the social identity perspective (e.g. perceptions, uncertainty reduction, sense of belonging) are subjective (Hogg, 2006). Therefore, an interpretivistic approach matches with investigations involving social identity issues. The nature of the social identity perspective suggests that the ontological position for this research may fit one or more of the following three categories: reality as a projection of human imagination, reality as a social construction, and reality as a realm of symbolic discourse.

The ontology of high subjectivism views reality as a projection of human imagination, implying a phenomenological approach is needed (Morgan & Smircich, 1980). Phenomenology uses rich description and real life experiences, and while time-consuming, is highly rewarding in understanding social study (Caelli, 2001; Plager, 1994). Further, knowledge generated by phenomenology lies in multiple subjective experiences (Morgan & Smircich, 1980), which resonates with methods such as multiple cases and peer observation.

The ontological position of reality as symbolic discourses calls for the epistemology of ethnography. The ethnography approach is a complex and subtle practice (Anderson, 1994) which requires considerable research experience. Since this research focuses on inter-organisational relationships in supply chains, solely adopting an ethnographic approach to this research would require full-time, on-site participation and long-term observation of focal organisations and their supply chains (Hammersley, 1995).

This research recognises reality as a social construction which requires more of a hermeneutics based approach. The nature of social identity formation and social identification suggests hermeneutics fits the investigation of social identity issues. In detail, the formation of a specific social identity is a socially negotiated, dynamic and complex process (Cornelissen et al., 2007; Luring & Thomsen, 2008, 2009; Thomas et al., 2011; Thomsen & Luring, 2008). An individual's identification with a certain category varies as a function of context (Turner et al., 1994). In addition to the importance of context in social identification processes, Blome et al. (2013) emphasise the importance of context in generating theory and understanding the practice of sustainable SCM. Hermeneutics suits the research of social identity issues by focusing on investigating the processes through which reality is created (Morgan & Smircich, 1980) and emphasising the context and history of the organisational phenomenon being studied (Prasad, 2002). Therefore, reality as a social construction is chosen as the major ontological position, and a hermeneutics approach is adopted in this research. In consideration of the benefits of brought by phenomenology and ethnography, this research also combines some components of phenomenology and ethnography in its research approach.

After clarification of the philosophical stance of this research, Section 3.2 now deals with the research strategy.

3. 2 Research strategy

3.2.1 Selection criteria for research strategy

Marshall and Rossman (1999: 62) define research strategy as “a roadmap, and overall plan for undertaking a systematic exploration of the phenomenon of

interest. Each research strategy has its specific advantages and disadvantages (Benbasat ,1987; Yin, 2008), and “no strategy is more appropriate than all others for all research purposes” (Benbasat ,1987: 369). Yin (2008: 8) defines three important conditions distinguishing the different research strategies: “(a) the type of research questions posed, (b) the extent of control an investigator has over actual behavioural events and (c) the degree of focus on contemporary or historical events”. Choice of research strategy is influenced by the goals of the researcher (Benbasat, 1984), the purpose of the research (Marshall & Rossman, 2010), and the nature of the research questions (Benbasat 1987; Creswell, 2012; Marshall & Rossman, 2010). Table 5 provides choices of research strategy and data collection techniques according to different research purposes and research questions. The options in Table 5 guides the research strategy choices in Section 3.2.2 and data collection instrument design in Section 3.3.4.

Purpose of the research	Research questions	Research Strategy	Data collection techniques
Exploratory To investigate little understood phenomena To identify & discover important variables To generate hypothesis for further research	What is happening in the social program? What are the salient themes, patterns, categories in participant meaning? How are these patterns linked to one another?	Case study Field study	Participant observation In-depth interviewing Elite interview
Exploratory To explain the forces causing the phenomenon in question; To identify plausible and casual networks shaping the phenomenon	What events, beliefs, attitudes, policies are shaping these phenomena? How do these forces interact to result in the phenomena?	Multi-site case study History Field study Ethnography	Participant observation In-depth interviewing Survey questionnaire Documents analysis
Descriptive To document the phenomenon of interest	What are the salient behaviours, events, beliefs, attitudes, structures, processes occurring in this phenomenon?	Case study Field study Ethnography	Participant observation In-depth interviewing Document analysis Unobtrusive analysis Survey
Predictive To predict the outcomes of the phenomenon To forecast the events and behaviours resulting in the phenomenon	What will occur as a result of these phenomena? Who will be affected? In what ways?	Experiment Quasi-Experiment	Survey Kinesics/Proxemics Content analysis

Table 5 Choosing appropriate research
(Marshall & Rossman, 1999: 33)

3.2.2 Case study as research strategy

Case study is chosen as the research strategy for this research. Yin (2008: 18) defines case study as “an empirical inquiry that investigates a contemporary phenomenon in depth and within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident.” The following parts of this section discuss in detail the justification for using the case study as the research strategy 1) alignment between case studies and the research purpose as well as the nature of this research; 2) alignment between case studies and (sustainable) SCM.

Alignment between case studies and the purpose of this research

The research purpose and the nature of this research suggest that it's appropriate to consider a research strategy as a case study. First, case study is especially suitable when theory is at its early stages and there is a need for exploration, classification, and hypothesis development (Benbasat et al., 1987; Roethlisberger & Lombard, 1977). With the theoretical lens of social identity theory, this research explores inter-organisational relationships in the context of sustainability implementation in supply chains. The use of social identity theory in supply chain studies is still at its early stage. Second, case study is particularly appropriate when it's difficult to separate out the phenomenon from its context (Eisenhardt, 1989, 2007; Holland, 1995; Voss et al., 2002; Yin, 1981). In this research, context plays an important role in building and testing theories about social identification processes (Cornelissen et al., 2007; Haslam, 2003; Luring & Thomsen, 2008, 2009; Thomas et al., 2011) and SCM (Cox et al., 2002; Fernie & Thorpe, 2007; Mouritsen et al., 2003; Srai & Gregory, 2008), especially sustainable SCM (Blome et al., 2013).

Alignment between case studies and (sustainable) supply chain management

A number of authors recognize the importance of case-based research for operations management and SCM (for example, Hilmola et al., 2005; McCutcheon & Meredith, 1993; Seuring, 2005, 2008; Stuart et al., 2002; Voss, 2002), especially in new theory development (Voss, 2002). Seuring (2005, 2008) argues that the flexibility in case study research enables data access to supply chains at various stages of supply chains, with flexible and customised data

gathering techniques. A review of the research strategies used by sustainable SCM studies reveals a strong preference for case study research because this research strategy is able to tackle an emerging phenomenon which is difficult to pin down or define (Seuring, 2008). Table 6 summarises the research strategies used in the recent sustainable SCM studies during the period of 1994-2005.

Total	Concept	Case Studies	Survey	Model	Literature Review
130	29	51	33	13	4
100%	22%	40%	25%	10%	3%

Table 6 Research methodologies applied in sustainable SCM research (Seuring, 2008: 131)

In spite of the strong preference for case study research in supply chain management research, case study research is often criticised and challenged for its lack of rigour (Ellram, 1996). Eisenhardt (1987, 1991) highlights the importance of methodological rigour in case study research. In particular, she emphasises the importance of creating precise and measurable constructs because such constructs are the foundation of powerful theory. Similarly, Seuring (2008) calls the attention to the rigour of case research in SCM. In response to the appeal for the rigour of case study (Eisenhardt 1987, 1991; Seuring, 2008), Section 3.3 discusses the detailed research design and research process so as to ensure the rigour of case research.

3.2.3 Level of analysis

Several researchers emphasise the importance of levels of analysis in theory building in organisational research. For example, Rousseau (1985: 56) argues that "theories must be built with an explicit description of the levels to which generalisation is appropriate." In detail, Klein et al. (1994) argue that explicit specification and explication of the level or levels of organisational theory has the following advantages: 1) increasing the clarity, depth, creativity and comprehensiveness of organisational theories; 2) helping organisational scholars discover new synergies among the diverse subtopics of the field; 3) enhancing the fairness and rigour of the research; 4) enhancing the clarity of the research results; 5) reducing the risk of a levels fallacy. It is particularly important to clarify the level of analysis for something new in the literature. As mentioned in Chapter

1, with the theoretical lens of the social identity approach this research explores inter-organisational relationships in supply chains in the context of sustainability implementation. This research focuses on social identity factors at the supply chain level, which is new in both the supply chain literature and social identity theory. Thus, it is necessary to justify the level of analysis in this research by reviewing the levels of analysis for in the field of inter-organisational relationships, supply relations, and social identities.

There are two dimensions of inter-organisational relationship research context: the micro context and the macro context (Cropper et al., 2008). The micro context refers to “level of analysis lower than that of the organisations engaging in inter-organisational relationships, i.e. to groups and individuals” (Cropper et al., 2008). Various studies evidence that features of organisational groups and individual organisation members have impacts on the functioning and results of inter-organisational relationships (Cropper et al., 2008; Higgins & Gulati, 2003; Huxham & Vangen, 2005; Maurer & Ebers, 2006; Mizruchi, 1996; Schrujier, 2008; Seabright et al., 1992; Stock, 2006; Uzzi, 1997; Uzzi & Lancaster, 2003). The macro context of inter-organisational relationships refers to “the higher level institutional environment in which inter-organisational relationships are situated” (Cropper et al., 2008: 13), including inter-organisational relationships’ legal, political, economic, national, cultural and spatial environment, as well as historical contexts of inter-organisational relationships (Cropper et al., 2008). In response to the micro and macro context of inter-organisational relationship research, Mattsson (1997) labels the different levels of inter-organisational relationships as Micro (dyadic), Meso (net), and Macro (markets as networks). Ritter and Gemünden (2003) distinguish four management levels of inter-organisational relationships by looking at the human dimension: 1) the individual; 2) the group or team of individuals; 3) the organisation; and 4) cluster of organisations (also refer to Burt, 1980; Håkansson & Johanson, 1992).

Similar to inter-organisational relationships, there are also three levels of analysis for supply relationships (Harland, 1996; Johnsen et al, 2008): 1) dyadic (two-party relationships between customers and their immediate suppliers); 2) chain (“a chain of businesses including a supplier, a supplier’s suppliers, a customer

and a customer's customer, and so on (Harland, 1996: 64); 3) network ("a network of interconnected businesses involved in the ultimate provision of product and service packages required by end customers" (Harland, 1996: 64). Many researchers also recognise the roles of individuals in inter-organisational relationships and supply chains. They emphasise the importance of social interaction, especially the interaction among the individuals who are involved in the inter-organisational relationships (Håkansson & IMP Group, 1982; Håkansson & Ford, 2002) and supply chain relationships (Christopher & Juttner, 2000; Kiessling et al., 2004; Zhang et al., 2011).

The social identity approach focuses on the perceptions of individuals. More specifically, social identity theory is "a social psychological analysis of the role of self-conception in group membership, group processes, and intergroup relations" (Hogg, 2006: 111). According to this statement, social identity processes include individuals' self-conception and their social attachment within and outside the group. There are three levels of self-conception: the personal, the relational, and the collective level (Brewer & Gardner, 1996).

To sum up, there are different levels of analysis and different interpretations about micro and macro levels in the fields of inter-organisational relationships, supply chain relationships, and identities, which are summarised in Table 7. Notably, both the inter-organisational relationships and supply chain literature highlight the role of individual actors, claiming that individual actors influence and are influenced by the inter-organisational relationships in which they are involved (Håkansson & Ford, 2002; Håkansson & Snehota 1995). The social identity approach focuses on the roles of self-conception of individuals in group membership, group processes, and intergroup relations (Hogg, 2006). Since this research looks at the inter-organisational relationships in supply chains, it makes sense to focus on the individual actors in this research. More specifically, the unit of analysis in this research will be the inter-organisational relationships of the large international institutions during their sustainability implementation in supply chains (For details, refer to Section 3.3.3). Since social identity factors are new in the supply chain literature, the inter-organisational relationships being studied may involve any links (and their boundary spanners) within the supply network

so as to ensure the flexibility in the investigation. This research looks at both the psychological aspect (mainly via the boundary spanners) and the operational aspects (the traditional view) of inter-organisational relationships in supply chains.

Inter-organisational relationships	Supply relationships	Social identities
<u>Micro</u> The interaction/the episode, and the dyadic/individual relationship	Dyadic (buyer-seller, customer-supplier)	Dyadic (Relational Identities)
<u>Meso</u> The portfolio/similar relationships the net/the relationships of an actor, and the network/ industries and markets as networks	Supply chain Supply Net	Teams/groups or bands (Group Identities) Tribes (macro bands) (Collective identities)
<u>Macro</u> Institutional environment	Institutional environment of supply relations	-

Table 7 Levels of analysis for inter-organisational relationships, supply relationships, and social identities

3.3 Research design and research method

The research design is the research plan that “guides the investigator in the process of collecting, analyzing, and interpreting observations. It is a logical model of proof that guides how the researcher draws inferences concerning casual relationships among the variables under investigation” (Frankfort-Nachmias & Nachmias, 2007: 77). It is the logic plan that connects empirical data to a study’s initial research questions and conclusion (Yin, 2008), and serves as a blueprint identifying elements of research: what questions to study, what data to collect, and how to analyse the results (Philliber et al., 1980). Stuart et al. (2002: 420) propose a five-stage research process: 1) research questions; 2) instrument development; 3) data gathering; 4) data analysis and 5) dissemination (for the similar models, also refer to: Eisenhardt, 1989; Ellram, 1996; Mentzer & Kahn, 1995; Voss et al., 2002; Yin, 2008). On the basis of the Stuart et al. (2002) model of the research process, Seuring (2008) provides detailed assessment criteria for the rigour of case research (Table 8).

Notably, although the research stages in Table 8 are sequential, the actual process in particular studies might have to be more flexible and cyclical (Marshal et al., 2008). The iterative research process means that researchers might have to repeat certain research stage(s) during data collection (Marshal et al., 1996; Seuring et al., 2008). The repetition of certain research stage(s) so enables new categories, themes or explanations emerge from the data, and

assist theoretical constructs formation (Loomis, 1990; Perry, 1996; Schriesheim et al., 1994). This repetition is especially helpful in the exploration of complex human issues using qualitative methods (Marshall et al., 1996; Morse et al., 2008).

Dimensions	Categories
Stage 1: Research question	
Theoretical aim	Exploration, theory building, theory testing, theory extension
Stage 2: Instrument development	
Cases	Number of cases, embedded units and stages of the supply chain where data was collected
Case selection	Single cases: unique case, representative case, revelatory case, longitudinal case, pilot case for multi-case design Multiple cases: unique case, representative case, revelatory case, longitudinal case
Stage 3: Data gathering	
Data gathering techniques	Open interview, semi-structured interview, structured interview, questionnaire, documents/websites/publications, direct observation, participant observation
Stage 4: Data analysis	
Data analysis	Transcription, use of software, cross-case analysis
Stage 5: Dissemination/overall process	
Case quality	Construct validity, internal validity, external validity, reliability

Table 8 Research process and rigour-related elements
(Seuring, 2008: 131)

Besides the five key research stages mentioned in Table 8, many researchers also highlight the importance of theories and a conceptual framework for a research process. Easterby-Smith et al. (2008) underline the importance of being familiar with the extant theories in researchers' fields of study. They argue that a profound understanding of the literature helps the final research findings to be located back to the literature and demonstrates how a theoretical contribution is made. Literature reviews help a researcher to understand what is already known in the field of study, justify why the research is worth doing, and define where the current research fits in with the extant literature (Silverman, 2009). Based on prior theories and/or experiences, a conceptual framework is developed to guide the main foci of the study, including the key factors, constructs or variables, as well as the presumed relationships among them (Miles & Humberman, 1994). Miles and Humberman (1994) argue that a conceptual framework can force the researcher to be selective. Thus, it leads to time savings in data collection and easier cross-case comparisons.

In addition to the importance of theories and a conceptual framework, some researchers also highlight the benefits of a pilot study/preliminary study (Baker 1994; Polit et al., 2001; van Teijlingen & Hundley, 2001; Yin, 2008). A preliminary

study is an initial exploration of issues related to a proposed research and is used to identify key features to be addressed in a quality process (Morgan,1998). A pilot study can be viewed as a small version of a preliminary study, a “small-scale version, or trial run, done in preparation for the major study” (Polit et al., 2001: 467), or “the pre-testing or trying out of a particular research instrument” (Baker 1994: 182-3). There are several advantages of conducting a pilot/preliminary study: 1) refining the data collection plan in terms of data content and collection procedure (Yin, 2008); 2) refining the researcher questions or even providing some conceptual clarification for the research design (Yin, 2008); 3) providing advance warning about where the main research could fail (van Teijlingen & Hundley, 2001).

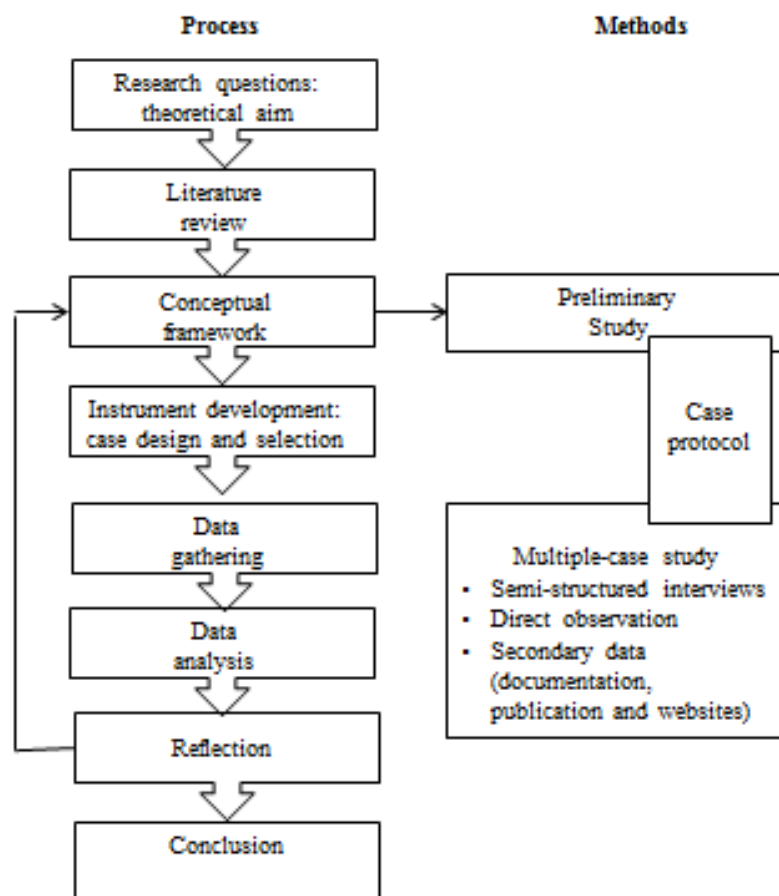


Figure 14 Research design
 Adapted from Howard (2004: 84)

The overall research design for this research is demonstrated in Figure 14, which integrates the 5-stage research process, the idea of the iterative research process, and the role of theories, a conceptual framework, and a preliminary study. As indicated in Figure 14, a preliminary study was used to get the initial

understanding of the research topics and provide implication for case selection, data gathering and interview guide development. The following parts of this section discuss the details of each process in detail, with reference to Seuring's (2008) rigour-related elements at each stage (Table 8). Section 3.3.1 defines the theoretical aim of this research. Section 3.3.2 briefs the preliminary study, which provides the initial insights into the research topic. The findings of the preliminary study are then used to justify the case selection and interview questions development, together with the theoretical consideration during these processes (details refer to Section 3.3.3). Section 3.3.3 justifies instrument development (case design), integrating the indications from the literature and the preliminary study. Section 3.3.4 and Section 3.3.5 discuss data analysis and data dissemination, respectively.

3.3.1 Theoretical aim

Seuring (2008) argues the first step to ensuring the rigour of case study research in supply chain management is to state the theoretical aim of the study explicitly. According to his content study on sustainable SCM and supply chain performance, a substantial majority (25 out of 38) of sustainable SCM publications did not explicitly state the theoretical aim of the studies. Furthermore, the authors of these studies did not provide the related details in describing their research process. In order to enhance the rigour of the current research, Section 3.3.1 discusses the theoretical aim of this research.

Marshall and Rossman (2010) argue that a statement of research purpose tells the readers what the results of the research may accomplish. They classify three major purposes for research: to explore (to understand), to explain (to develop), and to describe (to discover). Similarly, Yin (2008) suggests that case studies can be used in three modes: exploratory, explanatory, and descriptive. Seuring (2008) distinguishes four types of theoretical aims: exploration, theory building, theory testing, and theory extension. He notices that exploration dominates the case studies in sustainable SCM publications (about 67%), acknowledging that this is because this field is still new to supply chain researchers. Since this research focuses on an under-studied area of sustainable SCM (i.e. inter-organisational relationships) and employs a relatively new theoretical lens (social identity theory),

it is appropriate for the theoretical aim of this research to be “exploration”. To be more precise, this research aims to understand the supply chain inter-organisational relationships and their impacts in the context of sustainability thinking/ implementation in supply chains on an exploratory basis.

Braa and Vidgen (1999) propose different research methods for different research aims (Figure 15). As indicated in Figure 15, the three points of the triangle represent intended research outcomes: prediction, understanding, and change. Prediction is shown as the outcome of positivist modes of inquiry and is aligned with the systematic reduction of a positivist approach. Understanding is promoted by an interpretive approach, which successfully brings out insider rationality. Change is shown as the outcome of the intervention, which is motivated by a desire to make improvements in the problem situation. According to the theoretical aim clarified in the previous paragraph, the research aim of this research falls in the “understanding” category in Figure 15.

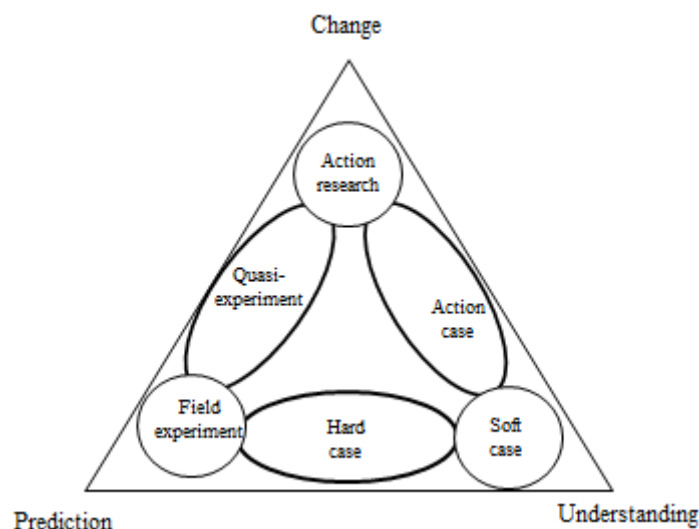


Figure 15 Research methods according to difference research aims (Braa & Vidgen, 1999: 32)

As indicated in Figure 15, there are six research methods within the triangle. Table 9 compares how these research methods can achieve the research aims respectively. As shown in Table 9, since the research aim of this research is “understanding”, a soft case design is appropriate for this study. Walsham (1993: 15) describes a soft (interpretive) approach to case study as the following: “from an interpretive position, the validity of an extrapolation from an individual case or

cases depends not on the representativeness of such cases in a statistical sense, but on the plausibility and cogency of the logical reasoning used in describing the results from the cases, and in drawing conclusions from them”. Having defined the theoretical aim of this research, Section 3.3.2 now outlines the preliminary study, which provided useful information for the case design.

Research Method	Research outcome		
	Change (Intervention)	Prediction (reduction)	Understanding (Interpretation)
Hard case study	Unintended	Medium	Medium
Soft case study	Unintended	Low	High
Action research	Intended, large scale	Low	Low to medium
Action case	Intended, small to medium scale	Low	Medium
Field experiment	Intended, small scale	High	Low
Quasi field experiment	Intended, small to medium scale	Medium	Low to medium

Table 9 Research method characteristics
(Braa & Vidgen, 1999: 42)

3.3.2 The preliminary study

Before the formal case studies, a preliminary case study in China was conducted in 2012 for the following purposes: 1) to gain an initial understanding of inter-organisational relationships related to sustainable SCM; 2) to assist the development of research questions and interview questions; 3) to refine the case design, data collection plan, and the case protocol. This section focuses on the research methods of the preliminary study. Appendix A lists full details of data collection for the preliminary study. Section 3.3.3 discusses implications of the preliminary study on the main study design. Section 4.1 presents the findings of the preliminary study.

There were several reasons for the researcher to conduct the preliminary study in China. First, some scholars have addressed the lack of context-specific research on sustainable SCM in emerging economies (Fang, 2010; Meyer, 2006, 2007). China is one of the exemplary emerging economies (Styles & Woola, 2010). Second, China has been accused of having done little about the environmental issues. With the current GDP of USD 588 billion and an annual economic growth rate of 10.3% (World Bank, 2011), the CO₂ emission in China has also been increasing steeply by 9% per year (Guardian, 2010). Therefore, it made sense to know about the sustainability implementation status in China.

Third, China is geographically large and complex, with various types of firms that differ in size and nationality of headquarters. Conducting the preliminary study in China provided a valuable opportunity to explore identity issues related to supply chain sustainability at various levels (organisational level, supply chain level, national level, and cultural level, assuming that Chinese culture is distinctive to the Western one). Lastly, convenience, access, and geographic proximity can be the main criteria in pilot study selection (Yin, 2008). Since the researcher is a Chinese and had access to various potential stakeholders related to supply chain sustainability, it was time and cost efficient to conduct the preliminary study in China.

Category	Country of origin	Location of office /plant	Industry/ Org. Type	Semi-structured interviews	Un-structured interviews	Site tour
Firm	USA	Beijing	Information technology	1		
Firm	USA	Guangdong	Food	1		Yes
Firm	USA	Guangdong	Retail		1	
Firm	USA	Guangdong	Theme park		1	
Firm	Germany	Shanghai	Consulting		2	
Firm	China	Guangdong	Flooring	1		
Firm	China	Guangdong	Architecture	1		Yes
Firm	China	Guangdong	Coating	7	1	Yes
Firm	China	Guangdong	Furniture	6	1	Yes
Supplier	China	Guangdong	Furniture	1		Yes
NGO	China	Beijing	NGO	1		Yes
NGO	China	Beijing	NGO	1		
NGO	China	Guangdong	NGO		2	Yes
NGO	USA	Guangdong	NGO		1	
NGO	China	Beijing	NGO		1	
NGO	China	Beijing	NGO		1	

Table 10 Summary of interviews in the preliminary study in China

Interviews were adopted as the key data collection instruments for the preliminary study. The interviewees included the following types of stakeholders: managers in focal firms, suppliers, and NGOs who were involved in the sustainability-related projects in China. There were 30 interviewees in total, who were from Beijing in North China, Shanghai in East China, and Guangdong province in the south. These three locations present the most economically developed areas in China. Hence, people in these areas have better awareness about sustainability as compared to those working in the less developed areas. The focal companies

being interviewed covered 9 industries, with their headquarters in China (4), the USA (4), and Germany (1). The supply chain transparency was very low in China. Therefore, the researcher was only able to interview one supplier after her attempts to contact various suppliers. Besides the firms, six NGOs were interviewed. Five of these NGOs had their headquarters in China; one had its headquarters in the USA. Table 10 summarises the interviewees.

The findings revealed from the interviews were triangulated with the following data: 1) two months of participation observation for the BBC Climate Asia Project; 2) direct observation of the sites of the focal companies or suppliers; 3) two sustainability-related workshops; and 4) secondary data (major sustainability-related publications, websites, and documents). Appendix A provides the details of data collection for the preliminary study.

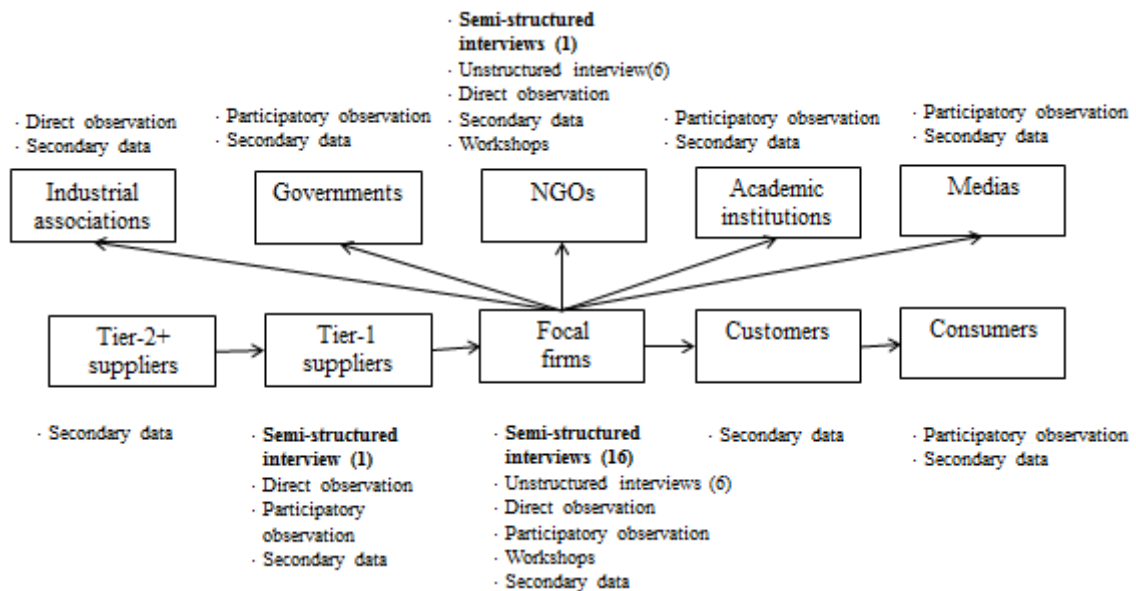


Figure 16 Summary of key stakeholders related to supply chain sustainability

Based on the findings from the preliminary study, Figure 16 summarises the key stakeholders involved in supply chain sustainability issues in China and the data collection instruments for each stakeholder type. The key data collection instrument (semi-structured interview) is marked by bold fonts. The numbers in the brackets indicate the numbers of interviews. As indicated in Figure 16, the preliminary study was conducted across a broad range covering most of the stages in supply chains and included various types of supply chain stakeholders. The broad scope of the preliminary study provided the researcher with a total

picture and some initial findings for inter-organisational relationships and supply chain sustainability issues in developing/emerging economies. The preliminary study provided some insights for case study design, which will be discussed in Section 3.3.3 (especially the part for case selection criteria).

3.3.3 Instrument development: case study design

Yin (2008) argues that there are five important components of a research design: 1) the research question(s); 2) the propositions (if any); 3) the unit(s) of analysis; 4) the logic that links data to conceptual propositions; and 5) the criteria to interpret the findings. The research questions and the propositions were defined in Chapter 2. The theoretical aim was clarified in Section 3.2.1. Hence, Section 3.3.3 focuses on the later three key components suggested by Yin (2008). The discussion of these three components will integrate the rigour-related elements for supply chain case study (Seuring, 2008) listed in Table 8.

Unit of Analysis

Defining the unit of analysis operationally is helpful for case replication and case comparison (Yin, 2008). However, in the area of sustainable SCM, Seuring (2008) notices that units of analysis are not explicitly defined in many cases studies for sustainable SCM research. Meanwhile, data is quite often (31 out of 51 publications) collected from only one stage of the supply chain (e.g., from the focal organisations only, or from the suppliers only). He reminds that a profound understanding of the sustainable SCM field requires clear definitions of the unit of analysis and empirical studies at various stages of the supply chain, because environmental and social issues may occur at earlier stages of the supply chain (Preuss, 2001; Rao, 2002; Seuring, 2008), and might include some non-traditional supply chain members (Seuring, 2004, 2008).

In response to the importance of defining the unit of analysis suggested by Yin (2008) and Seuring (2008), the unit of analysis for this research was defined at the beginning of the instrument design and refined after the preliminary study. With the theoretical lens of the social identity approach, this research studies the inter-organisational relationships of focal organisations, in the context of sustainability implementation. According to the literature and the findings of the

preliminary study, the supply chain relations that the researcher is going to study might cover any potential members at any stage in the supply net of the focal organisations, as long as they are involved in the sustainability practices initiated by the organisations being studied. This definition of unit analysis and involvement of multiple supply chain stages provides flexibility in exploring the social identification processes in supply chain inter-organisational relationships, which is at its early stage in the literature.

Number of cases

A primary decision in case study design is the distinction between single-case and multiple-case designs (Yin, 2008). More precisely, Seuring (2008a) notices that the major consideration for a case study design is to choose between a single case design on an in-depth and interpretative basis (Klein & Myers, 1999), and a multi-case design on a more positive basis (Dyer & Wilkins, 1991; Eisenhardt, 1991). Yin (2008: 47-52) suggests that a single-case design is appropriate when the case is: 1) a critical test of a well-formulated theory; 2) an extreme or unique circumstance; 3) a representative or typical case; 4) a revelatory case, and 5) for the longitudinal purpose. In contrast, a multiple-case design often uses replication logic (Yin, 2008). In detail, Perry (1998), Rowley (2002), and Yin (2008) suggest that each case in a multi-case study should be selected to enable either of the following two types of replication: 1) a literal replication (different cases predict similar results); 2) a theoretical replication (different cases produce contrasting results, but for predictable reasons). A multi-case design offers a robust framework for data collection (Swartz et al., 1998), increases the generalisability of the data collection process (Miles & Huberman, 1994), yields more compelling evidence (Herriott & Firestone, 1983), and enhances the explanatory power (Miles & Huberman, 1994). Because of the following reasons, a multiple-case design is chosen for this research. First, the theoretical aim of this research is exploration instead of theory testing. Thus, it is not appropriate to adopt a single case representing an extreme/unique/typical case. Second, the time constraints of a PhD research programme limited opportunity for a longitudinal study. Lastly, literal and/or theoretical replication is needed to provide solid evidence to support extending social identity theory to the study of supply chain inter-organisational relationships.

Yin (2008) claims that an important issue in using a multiple-case design is to consider the number of cases deemed to be necessary or sufficient for a study. He argues that, since replication logic (not sampling logic) is applied in multi-case design, the typical criteria for sampling size is not applicable in a multiple-case design. Similarly, Pratto (1990) argues that the validity of qualitative research is more related to the information richness of the cases selected and the observational/analytical capabilities of the researcher. Thus the sample size is not the most important factor for research validity. There are no precise guides for the number of cases (Perry, 1998; Romano, 1989), but there are some general rules helping a researcher to designate the number of cases. For example, Yin (2008) recommends that designating the number of cases depends on the certainty that a researcher wants to have his/her multiple-case result. Similarly, Eisenhardt (1989) suggests that cases should be added until theoretical saturation is reached. According to the experience of various researchers, the widest accepted range for a number of cases falls between two to four as the minimum, and ten to fifteen as the maximum (Eisenhardt, 1989; Hedges, 1985; Miles & Huberman, 1994; Perry, 1998). Perry (1998) suggests 3-6 cases and 35-50 interviews for a Ph.D. project. In consideration of the above arguments about case number selection, as well as the findings from the preliminary study, this research adopts 3 case studies. Three cases differing in supply chain characteristics were chosen to ensure the richness of the cases. The details of the case selection will be discussed in the next paragraphs.

Criteria for case selection

Benbasat et al. (1987) suggest that case selection in the multiple-case study should be carefully thought out rather than opportunistically decided. In detail, case selection should take the nature of their research into consideration (Benbasat et al., 1987), and follow the literal and/or theoretical replication (Yin, 2008). A researcher needs to link purposefully varied case situations and avoid case selection bias (Lewis, 1998). Furthermore, case selection in the study of the organisational phenomenon should be based on the characteristics of organisations: industries, organisational sizes, organisational structures, ownership types, geographic coverage, and degrees of vertical or horizontal integration (Benbasat et al., 1987).

Besides the general case selection criteria for management studies, since the current research explores supply chain inter-organisational relationships in the context of supply chain sustainability with a theoretical lens of social identity theory, there is a need for checking the literature for case selection in the (sustainable) SCM field and the social identity field against the findings from the preliminary study. In the SCM field, the first critical decision point is whether the case studies should be taken from the developing and developed countries. Some researchers emphasise the need for conducting context-specific research on sustainable SCM in developing countries and emerging economies (Fang, 2010; Meyer, 2006, 2007; Puffer & McCarthy, 2007). However, the preliminary study in China (representative of the emerging economy) uncovered that both sustainability and supply chain dialogues/cooperation were still in their infancy in China. Therefore, it was decided that the case organisations should be based in the countries where there are the necessary technological basis and community awareness in sustainability implementation. Ideally, the case organisations and their supply chains are large in terms of geographic distribution, and these organisations have some branches and suppliers in the developing countries or the emerging economies so that the researcher can still gain some insights on the supply chain sustainability issues in these areas.

The second critical decision from the SCM perspective is about the industries and sizes of the case organisation. Pagell & Wu (2009) suggest that the cases selected for sustainable SCM research should ideally be across multiple industries. They argue that all industries have to become sustainable, and evidence from multi-industries can enhance the generalisability and applicability of the results. In addition, Pagell and Wu (2009) notice that the size of firms may have impacts on their sustainable activities and outcomes. However, they also find that there is academic controversy in viewing the impact of organisational size on sustainable activities and outcomes. Pagell (2004) argues that larger organisations are more likely to adopt sustainable practices. In contrast, Sharma and Henriques (2005) find that small organisations can potentially create competitive advantages by taking innovation in sustainable product designs or business models. The preliminary study in China found evidence that supply chain power (which is partly related to the organisational size) was crucial for

firms' influences on supply chain sustainability practices. The preliminary study also revealed that the industries that firms belonged to and firms' supply chain structures had great impacts on both supply chain relationships and sustainability implementation. In addition, data from China found evidence that the government played an important role in companies' sustainability implementation by setting up necessary policies and mechanisms. Thus the government was regarded by the majority of interviewees in the preliminary study as the biggest stakeholder in supply chain sustainability issues. Therefore, the case organisations should have considerable power in their supply chains. Ideally, they have influences on policy making on sustainability-related issues. And it is crucial that organisations' supply chain structures should differ from each other so that the multiple-case study can obtain a literal or a theoretical replication (Yin, 2008). Thus, the generalisability and applicability of the results can be enhanced.

Social and environmental issues often occur in the early stages of a supply chain. Therefore, another important consideration in the selection of cases is the stages of the supply chain to be studied. Seuring (2008a) emphasises the importance of studying more than one stage in a supply chain. However, supply chain transparency is generally low in emerging markets such as China (Roth et al., 2008) and many firms are reluctant to disclose their CSR-related (including social and environmental) information (Chen et al., 2009, 2010, 2011, 2012). The results of the preliminary study were in line with these observations from Roth et al. (2008) and Chen et al. (2009, 2010, 2011, 2012). Generally speaking, the supply chain transparency in China was very low. During the preliminary study, it was very difficult for the researcher to gain access to the Tier-1 suppliers, not to say to the Tier-2 suppliers and earlier stages of the supply chains. It was also difficult to reach the customers and consumers. In consideration of the need to study multiple stages of supply chains (Seuring, 2008) and the actual accessibility challenge, the case studies should allow the access to the Tier-1 suppliers at least. And ideally, the other supply chain stakeholders can be reached via a snowball technique (Cresswell, 2012).

Elements	Suggestions in the literature	Findings from the preliminary study	Case selection criteria
Geographic location of cases	Need for conducting context-specific research in developing countries and emerging economies (Meyer, 2007; Puffer & McCarthy, 2007).	Both supply chain sustainability and transparency were in its infancy in China (a representative for the emerging economy).	Based in the developing countries. Ideally having some branches and suppliers in the developing countries or the emerging economies
Industries	Ideally be across multiple industries (Pagell & Wu (2009).	Industries and supply chain structures have great impacts on both supply chain relationships and sustainability implement.	Case organisations have different supply chain characteristics Ideally in different industries
Size of the organisations	Larger organisations (Pagell; 2004); Small organisations (Sharma & Henriques, 2005)	Larger organisations tended to take sustainability initiatives than smaller ones The government was the biggest stakeholders because of its policy-making power	Large organisations Ideally having policy-making power
Stages of the supply chain	Multiple stages (Seuring, 2008)	Low supply chain transparency; challenges in access to suppliers and other supply chain stakeholders	Data from the focal organisations and Tier-1 suppliers at least
Complexity of the social context	Comparison between multiple identities (Pratt & Corley, 2007) and complexity of the related social contexts (Phinney, 2008)	Social contexts influenced the identity comparison and formations processes	Large organisations that contained complex social contexts (diverse nationalities, ethics, and cultures; complex relationships and organisational structures)

Table 11 Summary of the case selection criteria

In the social identity field, identity comparison between multiple identities is a major consideration in case selection (Pratt & Corley, 2007; Pratt & Kraatz, 2009; Sillince & Brown, 2009). Phinney (2008) highlights the complexity and dynamics during identity formation and the social contexts that influence the identity comparison activities during the social identity processes. The preliminary study in China revealed that there were several social context that would influence the social identity processes in supply chains: the nationalities, ethnicities, and cultural backgrounds of the internal and external stakeholders, the relationships within supply chains, and sub teams within the organisations. Therefore, the case selected in this research should ideally cover the complex social contexts that can influence the social identity processes in supply chains. Table 11 summarises

the case selection criteria on the basis of the existent literature and the preliminary study.

Based on the case selection criteria summarised in Table 11, three cases were chosen. The three cases investigated three international organisations (IO1, IO2, and IO3) and their suppliers. All these organisations belonged to a big international organisation system (hereafter “BIO”). These cases are chosen for this research for three reasons. First, all the case organisations were large international organisations. Their headquarters were either based in the USA or Denmark, where sustainability was a familiar expression for organisations and their supply chain stakeholders. In addition, they had regional offices and country offices in the developing countries and/or the emerging economies. Therefore, the data from these cases revealed the sustainable SCM practices in both developing and developed countries.

Organi- sation	Nationality of headquarters	Field offices	Procurement category	Procured from developing countries	Supply chain characteristics
International organisation 1 (IO1)	Denmark	Asia, Europe, and the Middle East Africa Latin America and the Caribbean	Services: 70% (2013) Services: 50% (2012)	65.2% (2013) 70.2% (2012)	Dynamic supply chain with project based suppliers
International organisation 2 (IO2)	USA	Asia and the Pacific Latin America North America	Health products	44.8% (2013) 45.3% (2012)	Stable, 2.5% of the orders occupying 50% of the value.
International organisation 3 (IO3)	USA	Asia and the Pacific Europe and the Commonwealth of Independent States Africa Latin America and the Caribbean Arab States	Services over 70% of procurement value	80.3% (2013) 78.5% (2012)	Supply chain stability between that of IO1 and IO2

Table 12 Overview of cases

Second, although these organisations were all in the public sector, their suppliers covered various industries. In addition, the supply chain structures and characteristics of these focal organisations were different to each other. Third, being in the public sector and large in sizes, these three international

organisations had great policy-making power in sustainability implementation. Third, in all of these three cases, there was access to both the focal organisations and the suppliers. Thus, two stages of the supply chains were studied. Lastly, the three organisations were large, with diverse nationalities, ethics and cultural backgrounds of their employees and supplies, as well as complex organisational structures and supply chain relationships. The complexity of the social contexts within these organisations and their supply chains enabled the richness of the research data related to the social identity processes in supply chains. Table 12 summarises these three cases. The next paragraphs discuss the interviewee selection.

Criteria for interviewee selection

Within each focal organisation, multiple interviewees were chosen from both managerial and operational levels, so as to understand the entire supply chain (Pagell & Wu, 2009) and avoid the elite bias (Miles & Huberman, 1994; Myers & Newman, 2007). Within the three focal organisations, two types of procurement staff were interviewed according to BIO's definition of its procurement staff: procurement policymakers and procurement practitioners. Procurement policy makers refer to the senior procurement staff such as procurement directors, deputy procurement directors, and other procurement staff defining the procurement policies and sustainable procurement strategies. Procurement practitioners refer to the junior/mid procurement staff dealing directly with procurement activities (such as sourcing, bidding, supplier management and contract management). The interviewed procurement practitioners were from both the headquarters and field/country offices. Besides procurement policymakers and procurement practitioners, suppliers were also interviewed. The reason is as follows. Despite the importance of relationship management in sustainable SCM, the majority of the literature in this field focuses on the view of focal organisations (Carter and Easton, 2011). However, focal organisations and suppliers may have different perceptions of buyer-supplier relationships (Nyaga et al., 2010). Therefore, it is informative and important to expand research to the perceptions and practices of suppliers. From the social identity perspective, social identity processes are highly relational and comparative (Turner et al., 1987), which involves social contrast and comparison as well as individual efforts

in these processes (Phinney, 2008). Therefore, to study the social identity processes in supply chains, it makes sense to get data from different stakeholder groups in supply chains, such as leaders and boundary spanners within the focal organisation as well as the external stakeholders (e.g. suppliers) in supply chains. Table 13 summarises the number of each type of interviewees for the three cases. The interviewees were from both developing and developed countries. Appendix B presents the details of the 41 interviewees.

Case	Procurement policymakers	Procurement practitioners	Suppliers	Subtotal
IO1	3	8	5	16
IO2	2	7	9	18
IO3	2	3	2	7
Total	7	18	16	41

Table 13 Summary of the interviewees

The case study protocol

Yin (2008) claims that the case study protocol is a major approach to increasing the reliability of case study research: it keeps a researcher targeted on the topic of the case study, drives a researcher to anticipate potential problems occurring in the data collection process, and assists a researcher in planning the write-up of the case report. According to Yin (2008: 81), a typical case study protocol contains the following actions: an overview of the case project, field procedures, case study questions, and a guide for the case report. The case protocol for this research adopted the template of Brereton et al. (2008) and referred to the checklist of Höst and Runeson (2007) for undertaking and reviewing case studies. Appendix C presents the details of the case protocol. Appendix D lists the interview questions guiding the semi-structured interviews. The following paragraphs focus on the design of interview questions.

The interview guide

As outlined in Chapter 2, this research asks the following questions: RQ1 How do focal organisations engage their supply chain stakeholders in sustainable SCM using social identity thinking? RQ2 What are the specific identity issues relating to inter-organisational relationships in a sustainability context? The four propositions are about the importance and benefits of a shared identity along the sustainable supply chain, as well as the roles that leaders, boundary spanners

(e.g. procurement staff) and external stakeholders (e.g. suppliers) play in social identity processes in sustainable supply. The interview guide (Appendix D) is developed based on the research questions, propositions, and the existing literature. It contains two parts. Part A covers the interview questions to the focal organisations. Part B is for interviewing the suppliers. Both Part A and Part B cover similar questions and focus on the identity issues in the focal organisations' procurement practices and their sustainability implementation in their supply chains.

As mentioned in Chapter 2, sustainability implementation may involve identity changes/transition of an organisation and bring changes in an organisation's relations with its suppliers and other stakeholders (Pagell et al., 2010; Touboulic & Walker, 2015a; Touboulic & Walker, 2015b). Therefore, in order to answer the research questions, the case study explored identities at the following levels: organisational identities (shared identities within the organisations), relational identities (shared identities between buying organisations and their individual supply chain stakeholders) and network shared identities (in a project or a network which at least 3 parties were involved in). Among these three identities, organisational identities were the focus of the case study because of the following two reasons. On one hand, organisational identity emerges and develops from the complex interactions among its internal and external stakeholders" (Czarniawska & Wolff, 1998; Gioia 1998; Scott & Lane, 2000); on the other hand, organisational identities also impact on an organisation's relationships with its stakeholders (Brickson, 2005). Table 14 summarises the key studies measuring organisational identity issues.

As indicated in Table 14, the existent literature measures two aspects of organisational identity issues. One of the two aspects is the characteristics/traits of organisational identity, which are often associated with individuals' behaviours, values, and beliefs. There are two types of characteristics of organisational identities: anticipated characteristics/traits of an organisational identity (Bernstein, 1986; Rossiter & Percy, 1982) and actual characteristics/traits of an organisational identity (Balmer's 1996; Olins, 1989; Ramanantsoa, 1989; van Rekom, 1994; 1997). The characteristics/traits of an organisational identity are normally measured by qualitative methods, such as interviews (Bernstein, 1986;

van Rekom, 1994, 1997), visual audit (Napoles, 1988; Olins, 1989), ethnography (Balmer, 1996) and historical analysis (Ramanantsoa, 1989).

Research	Methods	Key items/ questions	Content to be measured
Organisational Identification Questionnaire (OIQ) of Cheney (1982, 1983)	30-item scale (1982) 25 item scale (1983)	A sense of belonging, attachment or emotional attraction; Loyalty to the organisation and enthusiasm about organisational goals; Perceived similarity in terms of shared traits Respect to shared values or goals	Organisational identification
Mael and Ashforth scale (1992)	36-item scale	Organisational identification Perceived organisational prestige Perceived inter-organisational competition Perceived intra-organisational competition	Organisational identification
The Rotterdam Organisational Identification Test (ROIT) (van Riel et al., 1994)	15-item scale	Organisational identification Five antecedents to organisational identification Personal and organisational traits Sentimentality	Organisational identification
Gautam et al. 2004	8-item scale	Behavioural identification Cognitive identification Affective identification	Organisational identification
The IDU method of Rossiter and Percy (1982)	Quantitative (survey)	What are the benefits that are perceived by key stakeholders (especially external) as important ("I"), being delivered by the organisations ("D") and finally are perceived as unique, or better, or distinctive ("U") when compared to other organisations?	The Anticipated traits of an organisational identity
Spiderweb method of Bernstein, 1986	Group discussion Semi-structured interviews	How do you describe your company? Participants have to choose the eight most important traits and rate these traits with a school figure (from one to ten)	The Anticipated traits of an organisational identity
Ramanantsoa, 1989	Heuristic analysis of historical sources	Examining organisation's historical roots and looking for areas of conflict within the organisation	The actual traits of an organisation's identity
Napoles, 1988; Olins, 1989	Visual audit	Interpreting organisational symbolism	The actual traits of an organisation's identity
Hierarchical Value Maps (van Rekom, 1994, 1997)	Laddering technique Means: end interviews, open interviews	"What is important to you?" The underlying values of employees. Open interviews whereby employees are asked to describe what they do, how they do it, why they work in this way and why they consider this type of behaviours to be important.	In their aggregate, the behaviours and values of individuals give important insights into an organisation's identity.
Balmer's (1996) affinity audit (BAA)	Structured ethnography via semi-structure interviews, observation and documentary evidence	The corporate mission and strategy Dominant systems of values and beliefs within the organisation; Evaluating such systems of values and beliefs against the corporate mission and strategy; Nurture those values and beliefs which support the corporate mission and strategy.	The composite of values and beliefs forms the corporate personality, which is seen as a key determinant of an organisation's identity.

Table 14 Key studies about measurement of organisational identity issues

Since this research adopts a soft case to understand the social identity issues related to inter-organisational relationships in focal organisations' sustainable SCM, the case study started with exploring the possible changes in the organisational identity characteristics during sustainability implementation and then explored the consequences of the identity changes (if there were any). The soft case design adopted in this research also implies that qualitative methods would be appropriate to measure the characteristics/traits of the identities. Therefore, this research combined the interview questions from Bernstein (1986) and van Rekom (1994, 1997) to explore the characteristics of identities: 1) how do you describe your organisation? 2) what is important to you? These questions were used to explore both the core organisational identities and the sustainability identities during the focal organisations' sustainability implementation in their supply chains. They were asked to three types of interviewees in the three cases 1) the procurement policymakers as procurement leaders, 2) the procurement practitioners as the boundary spanners, and 3) the suppliers as the external stakeholders. In addition, following the approach of Balmer's (1996), the researcher also reviewed the documents related to the case organisations' mission, vision, strategies, and values, which reflected the characteristics of the organisational identities.

Research questions	Key interview questions	Data analysis
R1 How do focal organisations engage their supply chain stakeholders in sustainable SCM using social identity thinking?	<ul style="list-style-type: none"> · What are the key sustainable procurement projects in the focal organisation and what are the key stakeholders for these projects? · How does the focal organisation liaise with its internal and external stakeholders in these projects? 	<ul style="list-style-type: none"> · To find the patterns between the actions that the focal organisation took in implementing their sustainable procurement projects and their sustainability identity.
RQ2 What are the specific identity issues relating to inter-organisational relationships in a sustainability context?	<ul style="list-style-type: none"> · How do you describe the focal organisation, its regular procurement, and its sustainable procurement projects? · What is your personal understanding of sustainable procurement? · What are the key sustainable procurement projects in the focal organisation and what are the key stakeholders for these projects? 	<ul style="list-style-type: none"> · To find the patterns between the core identity and the sustainability identity. · To explore the specific identity issues relating to inter-organisational relationships in a sustainability context.

Table 15 The research questions and the interview guide

The other aspect of the organisational identity issues is the organisational identification, i.e. the results of the identity salience (Mael & Ashforth, 1992; van Riel et al., 1994). Identification is related to the levels of trust, shared norms,

shared goals, commitment, information sharing, and relational investment (Costen et al., 2013). The approach of Costen et al. (2013) was adopted to ask questions around identification. For example, how does the relationship between your organisation and your suppliers influence the relational capital factors in the relationships (such as trust, shared norms, shared goals, commitment, information sharing, and relational investment)?

Both research questions could not be answered with the data in individual interview questions. Social identities are formed during identity comparison and negotiation among different stakeholders (Ashforth & Mael, 1989; Dutton & Dukerich, 1991; Gioia et al., 2000; Gioia et al., 2010; Whetten et al., 1992). Therefore, the consistencies between the interview data within and between different interviewee groups were checked to provide the answers to the research questions. These research questions aimed to explore the identity management and formation processes, as well as the consequences/impacts of the identities issues. The other sources of evidence (for example, secondary data, and observations) were used to triangulate the research findings. Table 15 summarises the relationships between the research questions and the interview guide, as well as the analysing approaches on the interview data.

Proposition 1 was related to the following questions: 1) questions about the characteristics of the sustainability identity and the salience of a shared identity (for example, how do you describe the focal organisation's sustainable procurement and its relationships with its suppliers in its sustainable procurement practices?) 2) questions about the level of trust, commitment, sharing, and communication. By asking the three groups of interviewees the questions about the characteristics of identities and their identification, the interview data could uncover the beliefs, behaviours, and roles of these participants in social identity processes in the focal organisations' traditional procurement practices and their sustainability implementation. Therefore, these questions were related to propositions 2, 3, and 4. Table 16 summarises the relationships between the research questions and the interview guide, as well as the data analysis on the interview data.

Propositions	Key interview questions	Data analysis
P1 In sustainable SCM, a shared identity would generate commitment, communication, and sharing in supply chains.	<ul style="list-style-type: none"> How do you describe the focal organisation's sustainable procurement and its relationships with its suppliers in its sustainable procurement practices? How do the relationships between the focal organisation and its supply chain stakeholders influence the following factors in the relationships in sustainable procurement? (Prompts: Trust, shared norms, shared goals, commitment, information sharing, relational investment). 	<ul style="list-style-type: none"> To find out whether there is evidence for shared identities in sustainable procurement by triangulating the interview data from different interviewees, the secondary data, and observation. To explore the pattern of the association between the shared identity (or the absence of a shared identity) and the level of commitment, sharing, and communication.
P2 Leaders play an important role in regulating and communicating identity issues in sustainable SCM.	<ul style="list-style-type: none"> What is the interviewees' personal understanding of sustainable procurement? How does the focal organisation liaise with its supply chain stakeholders in sustainable procurement? How do you describe the focal organisation's sustainable procurement and its relationships with its supply chain stakeholders in its sustainable procurement practices? 	<ul style="list-style-type: none"> To explore the patterns of the leaders' identity communications and regulations by triangulating the interview data from different interviewees, secondary data, and observation. To explore the patterns of the association between the leaders' identity communications/regulations and the salience of identities/identification
P3 Boundary spanners, such as procurement staff, play an important role in social identity processes during sustainability implementation in supply chains.	<ul style="list-style-type: none"> What is the interviewees' personal understanding of sustainable procurement? How does the focal organisation liaise with its supply chain stakeholders in sustainable procurement? How do you describe the focal organisation's sustainable procurement and its relationships with its supply chain stakeholders in its sustainable procurement practices? 	<ul style="list-style-type: none"> To explore the patterns of the procurement practitioners' identity comparison and negotiation by triangulating the interview data from different interviewees, secondary data, and observation. To explore the patterns of the association between the procurement practitioners' identity comparison and negotiation and the salience of identities/identification.
P4 External stakeholders play an important role in social identity processes during sustainability implementation in supply chains.	<ul style="list-style-type: none"> What is the interviewees' personal understanding of sustainable procurement? How does the focal organisation liaise with its supply chain stakeholders in sustainable procurement? How do you describe the focal organisation's sustainable procurement and its relationships with its supply chain stakeholders in its sustainable procurement practices? 	<ul style="list-style-type: none"> To explore the patterns of the suppliers' identity comparison and negotiation by triangulating the interview data from different interviewees, secondary data, and observation. To explore the patterns of association between the suppliers' identity comparison and negotiation and the salience of identities/identification

Table 16 The propositions and the interview guide

3.3.4 Data gathering

Yin (2008) recommends six most commonly used sources of evidence in case studies: documents, archival records, interviews, direct observation, participant observation, and physical facts. He argues that each of these data gathering methods has its own strength and weakness. Thus he proposes three principles of data collection: 1) use multiple sources of evidence and triangulation, so as to develop converging lines of inquiry; 2) create a formal, presentable database to allow independent inspection of the raw data and increase the reliability of the

whole case study; 3) maintain a chain of evidence and allow the external inspector(s) to follow the derivation of any evidence from research questions to conclusions (Yin, 2008: 114-124).

Several methods are adopted for data gathering in this research: semi-structured interviews, documents, direct observations and participant observation. Sections 3.3.2 and 3.3.3 already introduced the research methods for the preliminary study and the impacts of the study on the main study design respectively. Thus, the following paragraphs provide detailed discussions of the other methods adopted in this research.

Semi-structured interviews

Case studies are about human and behavioural topics, and interviews can provide important insights into these topics. Hence, the interview is one of essential sources of case study evidence (Yin, 2008). Jones (1985) reviews several important elements in ensuring the success of interviews. He argues that the first thing for researchers to resolve is how structural an interview should be. Table 17 demonstrates three types of interviews, according to the level of the structure within the interviews.

Level of structure	Types of interview	Advantages	Disadvantages
Highly structured	Market research interview	Allow a high degree of standardization of questions and answers;	Large numbers of interviewees are needed; Little flexibility; Limited depth of response;
Semi-structured	Guided open interview	Give a higher degree of confidentiality; identify nonverbal clues; guided by conceptual framework; Serendipitous discussions;	Non-verbal clues might be miss-leading;
Unstructured	Ethnography	A higher degree of confidentiality; Non-verbal clues; Deep insights into the research topic.	Time-consuming; Lack of focus; Lack of clear picture; Reflection and interpretation bias; Non-verbal clues might be miss-leading.

Table 17 Types of interviews

Extended from Easterby-Smith et al. (2008: 143) by adding summaries from Darke et al. (1998); Denzin & Lincoln (2000); Yin (2008)

This research adopted semi-structured interviews as the key data collection instrument. The interview questions were open-ended but asked under the guidance of the case protocol (Appendix C) and the interview questions

(Appendix D). The choice of semi-structured interviews offered sufficient flexibility to approach different respondents differently and to enable a focus on the unique situation of each case while still focusing on the data related to the research questions (Noor, 2008; Pagell & Wu, 2009). In addition, it enabled the gathering of both objective evidence of human behaviours as well as subjective perceptions and ways of processing social reality (Witzel, 1985). A semi-structured question list gave the researcher the flexibility to focus on what was unique in each case (Pagell & Wu, 2009).

There are several issues to be considered regarding gathering data via interviews. First, Yin (2008: 108-109) warns that interviews can only be regarded as verbal reports, because “the interviewee’s responses are subject to the common problems of bias, poor recall, and poor or inaccurate articulation.” So he recommends researchers to corroborate interview data with evidence from other sources. Second, a common pitfall of interviewing is the potential risk of introducing bias into the research. This potential bias arises through 1) the subjective judgment of the researcher; 2) the narrowed selection of interviewees; 3) some flaw in the design of the questions (Darke et al., 1998; Denzin & Lincoln, 2000, Yin 2008). In this research, the research bias was minimized by using multiple sources of evidence (Yin, 2008) and interviewing people at different levels and functions to reduce the elite bias (Miles & Huberman, 1994).

Easterby-Smith et al. (2008) highlight that at times managers may prefer telephone interviews because of the following reasons: 1) easier rescheduling; 2) more flexibility; 3) less obligation to host the researcher. They further point out that telephone interviews can be especially useful 1) in the context of real-time and process-based research; and 2) when the researcher and the interviewees have already met each other face-to-face and established a good relationship of trust. They argue that conducting additional telephone interviews on the basis of previous face-to-face contact increases the thickness of the data collected and offer more flexibility. Taking the justification of Easterby-Smith et al. (2008) on telephone interviews, this research combined both face-to-face interviews and telephone/Skype interviews. Since the researcher was based in Denmark during

the case studies, telephone/Skype interviews were made for the interviewees outside Denmark.

The interviews were conducted on a one-to-one basis between the researcher and the interviewees. Interviewees were introduced to the aims of the research and the role of the researcher. The confidentiality of the interview was assured in the form of consent and at the beginning of the interviews. Guided by the semi-structured questions, the interview process was exploratory, interactive and collaborative. A serendipitous approach was adopted when unexpected opportunities arose during the interviews (Barbour & Barbour, 2003). In such a context, the questions in the protocol were temporarily suspended, so as to pursue any particularly relevant line of inquiry (Pagell & Wu, 2009).

Documents

Case	Contextual documents	Documents related to sustainable SCM
IO1	<ul style="list-style-type: none"> · IO1's mission and vision statement · IO1's organisational charts · The 2013 IO1 annual procurement report · IO1's procurement manual · IO1's website, especially the part introducing mission, vision, mandates¹, strategies and key activities of the organisation · Welcome to IO1 	<ul style="list-style-type: none"> · IO1's presentations about sustainable SCM · IO1's strategic plan 2013-2017 · IO1's sustainable SCM training hand-outs and resource books · The rolling working plan for sustainability team in IO1 · IO1's website, especially news and on-line tools for sustainable procurement · Resource Book for the BIO Sustainable Procurement Training (by IO1, IO3 and other two BIO organisations (2008)
IO2	<ul style="list-style-type: none"> · IO2's mission and vision statement · IO2's organisational charts · The 2013 IO2 annual procurement report · IO2's procurement manual · IO2's website, especially the parts introducing the mission, vision, mandates and key activities of the organisation 	<ul style="list-style-type: none"> · IO2's Green Procurement Strategy 2014-2018 · IO2's Safe Disposal and Management of Unused Unwanted Contraceptives · Supplier's presentation at IO2 Supplier workshop · IO2's website, especially news and on-line tools for sustainable procurement
IO3	<ul style="list-style-type: none"> · IO3's mission and vision statement · IO3's organisational charts · The 2013 IO3 annual procurement report · IO3's procurement manual · IO3's website, especially the parts introducing the mission, vision, mandates, key activities, and procurement of the organisation · IO3 for beginners 	<ul style="list-style-type: none"> · IO3 Practitioner's Guide to Sustainable Procurement (2013) · IO3 Environmental Procurement Practice Guide (2008) · IO3 website, especially news and on-line tools for sustainable procurement · IO3 presentation: BIO Initiative on Greening Procurement in the Health Sector · Resource Book for the BIO Sustainable Procurement Training (by IO1, IO3 and other two BIO organisations (2008)

Table 18 Key documents used in the case studies, (IO1, IO2, IO3)

¹ "Mandate" was an official expression in the BIO system, which referred to the official responsibilities assigned to a BIO organisation

According to Yin (2008), documents are nearly relevant to every case study topic. This source of evidence is normally used in a case study to corroborate evidence from other sources. Documents can: 1) help researchers ensure the correct spellings and titles or names of organisations and people mentioned in the interviews; 2) provide other specific details to corroborate evidence from other sources; 3) help researchers to generate new interview questions. Yin (2008) highlights the importance of systematic searches for documentary information. Miles and Huberman (1994) define two types of documentary information: 1) contextual documents, which help researchers to understand the background information of the case sites; 2) specific documents, which are directly relevant to the research topic. In this research, the researcher went through similar contextual documents for the three cases to understand the case organisations and their supply chains. Regarding the specific documents directly relevant to sustainable SCM, different case organisations had made different progress in sustainability implementation. Hence, the available documents were different across cases. Table 18 lists the key documents in the case studies.

Direct observation and participant observation

Case-based research depends heavily on investigative observation (Stuart, 2002). In case studies, observation is a useful means of providing additional information about the research topic (Yin, 2008). Yin (2008) proposes that observation can be either formal or casual. Stuart (2002) warns that observation can be shaped by the observer's prior experiences, and background, hence a biased sample will affect the interpretation of observations and parameter estimation. In order to track-up and minimize the potential bias occurring from the direct observations, participant observation notes, and the researcher's reflections should be documented in the field notes (Miles and Huberman, 1994). In this research, not all the interviews were conducted face-to-face. Hence, direct observations were only made during face-to-face interviews. In addition, staying in Denmark for 6 months offering the researcher a valuable opportunity for participant observation. Denmark was the headquarters for IO1, the headquarters for the IO2 procurement department and a regional office for IO3.

No single source has a complete advantage over all the others (Yin, 2008), and the various sources are highly complementary. Table 19 summarises the comparative strengths and weaknesses of the major evidence sources used in this research.

Methods	Strengths	Weaknesses
Interviews	Targeted-focuses directly on case study topics Insightful – provides perceived casual inferences and explanations	Bias due to poorly articulated questions Response bias Inaccuracies due to poor recall Reflexivity-interviewees gives what the researcher wants to hear
Documents	Stable - can repeatedly be reviewed Unobtrusive – not created as a result of the case study Exact-contains exact names, references, and details of an event Broad coverage – long span of time, many events, and many settings	Retrievability – can be difficult to find Biased selectivity, if collection is incomplete Reporting bias- reflects (unknown) bias to author Access – may be deliberately withheld
Direct observation	Reality-covers events in real time Contextual – covers context of “case.”	Time-consuming Selectivity – broad coverage difficult without a team of observers Reflexivity – event may proceed differently because it is being observed Cost-hours needed by human observers
Participatory observation	Reality-covers events in real time Contextual – covers context of “case.” Insightful into interpersonal behaviours and motives	Time-consuming Selectivity – broad coverage difficult without a team of observers Reflexivity – event may proceed differently because it is being observed Cost-hours needed by human observers Bias due to participant observer's manipulation of events

Table 19 The strengths and weaknesses of the major evidence sources used in this research (Adapted from Yin, 2008: 102)

3.3.5 Data analysis

Data analysis is one of the least developed and the most difficult part of the case study research (Eisenhardt, 1989; Yin, 2008). Yin (2008) finds that data analysis in case study depends heavily on a researcher’s own style of rigorous empirical thinking, the sufficient provision of evidence, and careful consideration of alternative interpretations. Hence, he appeals researchers to develop an overall analytic strategy for case study research.

According to Yin (2008: 130-135), there are four general strategies for case data analysis: 1) relying on theoretical propositions; 2) case descriptions; 3) using both quantitative and qualitative data; and 4) rival explanations. Meanwhile, Yin (2008: 136-160) provides five analytical techniques for case studies: 1) pattern matching, 2) explanation building, 3) time-series analysis, 4) logic model, and 5) cross-case synthesis. Despite the specific analytic strategies and techniques that are chosen,

there are some general principles ensuring the quality of case study analysis: 1) attention to all the evidence; 2) addressing all major rival interpretations; 3) addressing the most significant aspect of the case study; and 4) using the researcher's own prior, expert knowledge in case study and cross-case analysis (Yin, 1994a, 1994b, 1999, 2002, 2008). Miles and Huberman (1994) define three components in qualitative data analysis: data reduction, data display, and conclusion drawing/verification (Figure 17).

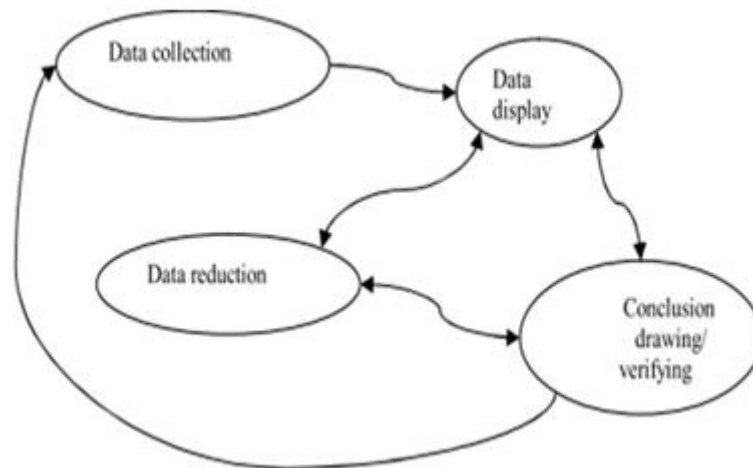


Figure 17 Components of data analysis: iterative model (Miles and Huberman, 1994: 12)

Within-case analysis

Techniques for case analysis	Explanation	Representation
Chronologies (Time series)	Narratives of the events that take place, organized by date	Case diary and field notes
Coding	Sorting data according to concepts and themes	Coding list
Clustering	Categorizing cases according to common characteristics (size, the best and worst)	Cluster contextual variables
Matrices (explanation building)	Explaining the interrelationship between identified factors	This has been used extensively in within- and cross- case analysis
Pattern matching	Comparison between a predicted and an empirically based pattern	This has been used extensively in within- and cross- case analysis

Table 20 Case study analysis techniques (Adapted from Ghauri, 2004 and summarised from Yin, 2008)

The importance of within-case analysis is driven by one of the features of case study research: an enormous volume of data to be handled (Eisenhardt, 1989). The goal of the within-case analysis is to structure, define, reduce and make sense of this huge amount of data (Pagell & Wu, 2009). Eisenhardt (1989) argues

that within-cases analysis helps researchers to cope early in the analysis process with the often staggering volume of data. Hence, it is crucial to the generation of insight (Gersick, 1988; Pettigrew, 1990). Within-case analysis typically involves detailed, descriptive case study write-ups for each case (Eisenhardt, 1998). Table 20 provides some techniques used for within-case analysis in this research.

Besides the four techniques mentioned in Table 20, one crucial factor related to the within-case analysis in this research was the interpretation of the interview data and the data from the documents and other secondary data. As mentioned in Section 3.1.3, this research views reality as a social construction, which implies more of a hermeneutics based approach, combining with some components of phenomenology and ethnography. Therefore, the language/the exact words that the interviewees used to describe the focal organisations, their supply chain relationships, and their sustainable procurement was a major evidence for the focal organisations' core identity, relational identity and sustainability identity. The verbatim quotations were copied directly from the transcripts and they contained some grammar mistakes (the majority of the interviewees were not native English speakers). The interview data were triangulated between the three interviewee groups (i.e. procurement policymakers, procurement practitioners, and suppliers), the secondary data (the focal organisations' documents, publications, and websites), and the researcher's observation. For example, in the IO1 case, when talking about the supply chain relationships, the expression "partners" was used frequently in the IO1 documents, publications, and websites to describe their donors/clients. Similarly, the IO1 policymakers and procurement practitioners also called their donors/clients as "partners". Among the three case organisations, IO1 was the only one which include the "benefits of partners" in their procurement policies. The expression "vendors" were used to refer to IO1's suppliers in the IO1's documents, publications, websites and the interview data from the IO1's procurement policymakers and procurement practitioners. Many IO1 policymakers and procurement officers also used the expressions "they and we" (e.g. IO1-PM1) to describe their relationships with the suppliers. The expression "partner" indicated that in its organisational identity orientation (i.e. the organisation's orientation in its stakeholder relationships), IO1 treasured its

relationships with its donors/clients. Whereas IO1 kept a relatively arm's-length relationships with its suppliers.

Notably, the hermeneutics based approach requires evidence of the verbatim quotations from the interview data, documents, publications, and websites. However, the considerations for confidentiality and anonymity didn't allow excessive verbatim quotations, which could probably identify the case organisations and their suppliers (refer to Section 3.4.3). In order to ensure the rigour of the case write-up, the following actions were taken. First, an initial version of each case was written with sufficient verbatim quotations, as well as original charts/tables from the case organisations' documents, publications and websites, so as to ensure a detailed, evidence-based case description. In the initial versions of the case write-up, an inductive approach was adopted to ensure the data richness. Second, coding was based on the interview transcripts, fieldnotes, and secondary data, with the guidance of the conceptual framework. The two supervisors of the researcher were involved in giving feedbacks on the initial case-writing and coding triangulation. Third, although many quotations were removed from the thesis versions for viva and final submission, the previous versions of the thesis were stored for any possible tracking-up.

Cross-case analysis

Yin (1981: 61) provides important insight for cross-case analysis. He argues that case studies in multi-case designs are not isolated data points. Instead, "case studies as analytic units should be regarded on par with whole experiments". The idea behind the cross-case analysis is "to force investigators to go beyond initial impressions, especially through the use of structured and diverse lenses on the data" (Eisenhardt, 1989: 541). The aims of cross-case analysis are: 1) to explore patterns across cases (Ragin, 1987); 2) to enhance generalisability; 3) to deepen understandings (Miles & Huberman, 1994); 4) to develop more sophisticated descriptions and more powerful explanations (Miles & Huberman, 1994); and 5) to enhance the probability of capturing the novel findings which may exist in the data (Eisenhardt, 1989).

Miles and Huberman (1994: 174-177) classify three types of strategies for cross-case analysis: 1) case-oriented strategies, including replication strategy (Yin, 2008), multiple-exemplar approach (Denzin, 1989) or types-forming approach (Lofland & Lofland, 1984); 2) variable-oriented strategies; 3) mixed strategies; which combine or integrate 1) and 2). In this research, a mixed strategy was employed for the cross-case analysis, following the procedures suggested by Miles and Huberman (1994: 186) and Eisenhardt (1989b). Each case was written up using a more or less standard set of variables at first, and then matrices, maps, cross-case tables, and other displays were used to analyse the individual case in depth. After each case was well understood, the meta-matrix was displayed to provide a systematic comparison.

Data management

Data management and data analysis are integrally related, and there is no firm boundary between them (Levin 1985; Wolfe, 1992). Miles and Huberman (1994) claim that although data management is familiar to most of the qualitative researchers, in reality, twenty percent or more of the qualitative studies have serious deficiencies (Freedland & Carney, 1992). Hence, Miles and Huberman (1994) highlight the importance of data management and suggest the data analysis for qualitative research should be well documented as a process. Similarly, Yin (2008: 119) addresses the importance to have a “formal, presentable database” for case studies. He argues that the lack of a formal database is a major shortcoming of most case studies.

Miles and Huberman (1994: 45-46) provide some advice for data management for the research: 1) plan the structure and the content of research database in advance; 2) use a combination of both physical and electronic filing systems; 3) update and extend the research database according to the process of the research; 4) make backups. In response to the importance of data management mentioned by Miles & Huberman (1994) and Yin (2008), this research maintained a formal research database. Back-ups of the major research files were also updated on daily basis.

Dissemination and quality criteria

Test	Aim	Phase of research	Case study Tactic	Implementation of this research
External validity	· Defining the domain to which a study's findings can be generalised	· Research design	· Use replication logic	· Both literal and theoretical replication were included for case selection
Construct validity	· Identifying correct operational measures for the concepts being studied	· Data collection · Data collection · Data collection	· Use multiple sources of evidence · Establish chain of evidence · Have key informants review draft report	· Interviews, observations, and documents were used · Yes · Yes
Reliability	· Demonstrating that operation of a study can be repeated with the same results	· Data collection · Data collection	· Use case studies protocol · Develop case study database	· A protocol was developed · A formal case database was developed.
Internal validity	· Seeking to establish a casual relationship, whereby certain conditions are believed to lead to other conditions	· Data analysis	· Do pattern matching	· Compared the findings with propositions.

Table 21 Case study tactics for four design tests
(Adapted from Yin, 2008: 40-41)

There are four commonly used tests to establish the quality of any empirical social research: construct validity, internal validity, external validity and reliability (Kidder & Judd, 1986; Yin, 2008). In his content analysis of sustainable SCM publications, Seuring (2008a) uses these four quality criteria to assess the research dissemination stage for sustainable SCM research (refer to Table 9 in Section 3.3). Yin (2008) identifies several tactics for dealing with these four tests in case study conduction. Table 21 summarises the tactics used in this research, which are recommended by Yin (2008).

3.4 Ethical consideration of the research

Singer and Vinson (2002) argue that ethical considerations must be made in the design stage of a case study. According to Runeson and Martin Höst (2009), there are several key elements in ethical considerations 1) board approval, 2) informed consent, 3) confidentiality, 4) handling of sensitive results, and 5) safety of the participants and the researcher. This section discusses these ethical considerations in detail.

3.4.1 Board approval

The three case organisations in this research belonged to BIO, which adopted high ethical standards in its daily operations. Before the researcher conducted the case studies in the three BIO organisations and their suppliers, the research proposal of the study and the related ethical issues had been reviewed carefully via the following means: 1) a three-hour written examination conducted by the case organisations; 2) a one-hour discussion with the review panel within the case organisations. Besides the ethical approval of the case organisations, the research proposal and the case protocol were also carefully reviewed by the researcher's supervisors.

3.4.2 Informed consent

Since a considerable number of interviewees were located in the places outside Denmark, where the research was based during data collection, a form of informed consent was sent to every potential interviewee by e-mail before the interview was conducted. The form of informed consent included the following key elements recommended by Ritchie et al. (2013): 1) the purpose and scope of the study, 2) introduction of the researcher, 3) data collection methods, and 4) participation means of the participants and the estimated time required from them. In the consent form, the principles of confidentiality and voluntary participation were emphasised. The interview wouldn't be conducted if the potential interviewees didn't give their consent for participating in the research. The participants were also informed that they could exit the research at any stage of the research if they wanted to.

In this research, one special issue related to informed consent is the dual relationships involved in this research. Holloway and Wheeler (1995) suggest that the informed consent should be based on the participant's understanding that participation in the research is voluntary. They argue that this understanding is especially important where the researcher has a professional relationship with the participant since the dual relationship may lead to the participant's feelings of obligation or gratitude (Holloway & Wheeler, 1996). The researcher considered the issue of dual relationships thoroughly when obtaining the informed consent from the interviewees. In the three case studies, a snowball technique was used

to find the interviewees. For example, an interviewee could recommend his/her colleagues or suppliers to participate the research and introduce the researcher to these potential participants. It was particularly sensitive when the researcher was introduced to the suppliers by the people in IO1, IO2, and IO3. The suppliers might feel it was difficult for them to refuse a researcher introduced by their buyers or feel reluctant to be open and frank to answer the questions raised by the researcher.

To deal with the dual relationships occurring in the data collection, the researcher mentioned the following points to the participants 1) the principle of voluntary participation, 2) the participants' right to exit the research at any stage of the research, 3) the researcher's role as an external researcher, who was independent in the case organisations, and 4) the principles of anonymity and confidentiality. These points were mentioned in the form of consent and at the beginning of each interview.

3.4.3 Anonymity and confidentiality

Anonymity means the identity of the participating parties not being recognised by the people outside the research team (Ritchie et al., 2013). Confidentiality means avoiding the direct and indirect attributions of comments, in reports, publications or presentations of the research findings, to identify participating parties (Ritchie et al., 2013). The anonymity and confidentiality issues were related to the two levels of the participating companies in this research: the participating organisations and the interviewees.

The BIO system, including the three case organisations belonging to this system, played an important role in the political stage of the world. Some sensitive topics emerging from the research data and disclosure of some confidential information could have great impacts on the political and economic situations in various countries. In addition, only with high anonymity and confidentiality, the suppliers felt secure to be open and frank in front of the researcher, who was recommended by their buyers. Similarly, only with high anonymity and confidentiality, the procurement practitioners felt secure to be open and frank to express any ideas that were different from the official communication of the case organisations or the opinions of the procurement policymakers (i.e. the procurement leaders of

the organisations). Therefore, special attention needed to be given to the anonymity and confidentiality issues. The researcher took the following actions to ensure the anonymity of the participating parties and confidentiality of the research data without compromising the power of the research findings.

In order to avoid the direct attribution, the researcher anonymized the names of the participating organisations and the interviewees in data storage and case writing. The real names of the case organisations were replaced by IO1, IO2, and IO3. For the interviews, only the organisations and categories of the interviews were mentioned (for example, IO1-PM1 stood for a policymaker in IO1, IO1-PP1 stood for a procurement practitioner in this organisation, and IO1-S01 stood for a supplier of IO1).

In comparison to the direct attribution, indirect attribution needs particular care (Ritchie et al., 2013). Indirect attribution refers to a collection of characteristics that might identify the participating parties (Ritchie et al., 2013). This research adopted several strategies suggested by Ritchie et al. (2013) to avoid the indirect attribution. First, the reporting of sensitive contextual details was limited. In detail, in order to compare the communicated/intended identities of the case organisations and their identities actually perceived by their internal and external stakeholders, secondary data (including the documents, publications and website information) were used to present the communicated/intended identities of the case organisations. Since BIO and the three case organisations inside this system were very unique, direct quotations from their secondary data could easily make the readers find them easily through a search engine enquiry. Therefore, some important quotations (such as mission, vision, and other information that could identify the organisations) were reported in the initial versions of the thesis which were submitted to the researcher's supervisors and then were deleted or rephrased in the finally submitted version to ensure the anonymity and the confidentiality. Similarly, some quotations from the interviewees were reported in the initial versions of the thesis which were submitted to the researcher's supervisors and then were deleted or rephrased in the finally submitted version. All the versions of the thesis were kept carefully for any possible checking.

Second, some minor details were changed to disguise the identities of the participating parties. For example, in the IO2 case, some of the procurement categories were very unique. By knowing the names of the procured products/services, readers can easily identify the real name of IO2 thus the whole BIO system. Therefore, IO2's key procurement categories were named with the alphabet letters A, B, C, D, and E. Another example was the organisational chart of IO3. IO3 had a special department, the full name of which could easily lead the readers to identify IO3 and the whole BIO system. Therefore, the name of this department was named as "special unit" in the IO3's organisational chart presented in the thesis.

Third, some points were reported in a more general way to anonymize the participating parties. For example, when talking about the operation activities and the sustainable procurement projects, the secondary data and the interviewees reported some special projects that could be easily recognised by the readers. Therefore, these activities and projects were reported in a more general way in the thesis.

The needs for anonymity and confidentiality also have implications for data storage (Ritchie et al., 2013). Following the suggestions by Ritchie et al. (2013), interview records and transcripts were labelled with codes rather than real names to ensure anonymity. The identifying information (such as related secondary information and interviewees lists) were stored separately from interview data.

3.4.4 Handling of sensitive results

There were two types of sensitive results in this research. The first type of sensitivity was about the data resources. In detail, data collected from procurement practitioners as employees may be sensitive if presented to procurement policymakers as managers/leaders (Singer & Vinson, 2002). Similarly, it was also sensitive to present the data from the suppliers to the focal organisations and present the data from the focal organisations to the suppliers. To handle this type of sensitivity, confidentiality and anonymity were assured (refer to Section 3.4.3).

The second type of sensitivity was about the content of the data. In detail, results could be sensitive to a focal organisation by revealing the organisational deficiencies (Andrews & Pradhan, 2001) in its sustainable procurement practices. To handle this type of sensitivity, confidentiality and anonymity were assured (refer to Section 3.4.3). In addition, criticism was avoided as much as possible in the write-up stage. At the individual level, identity issues were associated with people's values, beliefs and perceptions. Therefore, some interview questions could trigger the interviewees' negative emotions, especially when they didn't agree with the focal organisation's approaches to sustainable procurement and felt disappointed with the focal organisation. In this scenario, Ritchie et al. (2013) recommend that the researcher should turn to everyday topics during the interview and/or stay after the interview to respond to any anxieties about confidentiality and anonymity.

3.4.5 Safety of the participants and the researcher

In any study, it is crucial to ensure that both the participants and the researchers are not harmed by their participation in the research. One major concern was the interview venue. Since many interviewees were located in various locations in the world, telephone/skype interviews were conducted with the interviewees who were not based in Denmark. For the interviewees who were in Denmark, the interviews were arranged face to face in the BIO office building. Some interviews in Denmark were rescheduled due to the extreme weather (storm) in Denmark.

3.5 Summary

This research attempts to explore a little-known phenomenon in the supply chain: identity-related issues in inter-organisational relationships. Social identification is a dynamic and complex process, which is highly subject to its contextual environment (Cornelissen et al., 2007; Luring & Thomsen, 2008, 2009; Thomas et al., 2011; Thomsen & Luring, 2008; Turner et al., 1994). Several subjective factors (e.g. perceptions, uncertainty reduction, and sense of belonging) are related to the social identity perspective (Hogg, 2006). As a result, a hermeneutical approach is adopted, combined with elements of phenomenology and ethnography.

This research employed an exploratory multiple cases strategy. Informed by the findings of the preliminary study, the case study examined three international organisations during their sustainability implementation in their supply chains. The three cases had the following characteristics. First, all of the case organisations were large international organisations and declared that they had some sustainability initiatives in their supply chains. The supply chain structures and characteristics were different with each other. Second, although their headquarters were based in developed countries (the USA or Denmark), they had regional offices and country offices in developing countries and/or the emerging economies. In addition, their suppliers covered various industries, located in both developing and developed countries. In all three cases, the researcher had access to both the focal organisations and the suppliers. Hence, two stages of the supply chains were studied. The selected cases considered the richness of data and provided opportunities to explore inter-organisational relationships in sustainable SCM. The key data collection instrument was semi-structured interviews. Additional evidence resources were organisations' documents, direct observations, and participant observations.

Data analysis included three components: data reduction, data display, and conclusion drawing/ verification. The researcher took two major steps in the data analysis: within-case analysis and cross-case analysis. Several techniques were used for within-case analysis: chronologies, coding, clustering, matrices and pattern matching. For the cross-case analysis, a mixed strategy approach was employed, which integrated the case-oriented strategies and variable-oriented strategies. A formal database was established to ensure the rigour of data collection and analysis process. The ethical issues were considered.

CHAPTER 4 FINDINGS

This chapter presents the key findings of the researcher's field study. It starts with a preliminary study in China. The preliminary study provided a general picture of sustainable SCM in developing countries/countries or regions with an emerging economy. Then the chapter describes three cases within a Big International Organisation (hereafter "BIO") System. The chapter ends with a summary of the findings.

4.1 Preliminary study in China

To study identity-related phenomenon related to sustainable SCM, it makes sense to have a general picture on the topic. With the preliminary study in China², the researcher aimed to 1) understand what was going on in the area of sustainable SCM in China; 2) explore how firms engage their supply chain stakeholders in sustainability initiatives via identity issues, 3) use the findings to inform the main study design. As introduced in detail in Section 3.3.2, the major source of evidence for the preliminary study were interviews with the following three types of stakeholders involved in the supply chain feasibility studies: managers from focal companies, suppliers, and NGOs. The interview data was triangulated with other sources of evidence: participation observation, workshops; and secondary data (major sustainability-related publications, websites, and documents). Section 4.1 focuses on the key findings of the study. Sections 4.1.1 to 4.1.3 present the results from interviews with the focal companies, the suppliers, and the NGOs respectively. Section 4.1.4 introduces the secondary data. Finally, 4.1.5 summarises the preliminary study and provides the researcher's reflection on the study.

4.1.1 Data from the focal companies

In comparison to "sustainability", "corporate social responsibility (CSR)" was a more familiar expression for the majority of the managers interviewed. The expression "CSR" was used more often than the expression "sustainability" in their daily work, the documents of the companies and the website information of the companies. Some interviewees even said that they hadn't heard the

² The preliminary study in China was conducted during the period of August 2012 to March 2013.

expression “sustainability” before the interviews. The interview data uncovered that CSR meant the following things to the managers: 1) philanthropies: for example, “corporate social responsibility means returning a part of our company’s profit to the society” (CSR manager in a Chinese company); 2) compliance: for instance, “corporate social responsibility means obeying the national and industrial regulations in terms of labour protection, environmental issues, economic issues and quality assurance” (compliance manager in a multinational company in China); 3) economic responsibility: for example, “the most important responsibility for a company is earning profit” (marketing manager in a Chinese company). Table 22 summarises the key CSR projects for the companies interviewed.

Co.	Country of Origin	Location of Office/Plant	Industry	Major CSR Projects
1	USA	Beijing	Information Technology	Creative charity contest for Chinese university students (on annual basis)
2	USA	Guangdong	Food	Donation to teachers and students in poor districts Environmental innovation contest for Chinese university students (on annual basis) Supply chain compliance program (the program was there but was not put into execution. The supply compliance manager complained about inaccessibility to manufacturers for auditing and inspection issues.)
3	China	Guangdong	Flooring	Scholarships for poor university students Getting environmental certification for wood, the key raw materials for its flooring products
4	China	Guangdong	Architecture	Using environmentally-friendly architecture materials
5	Germany	Shanghai	Consulting	Providing environmentally-friendly technologies to Chinese companies
6	China	Guangdong	Coating	Donation to poor university students Production and sales of environmentally-friendly coatings or paints
7	China	Guangdong	Furniture	Sales of so-called environmentally-friendly furniture, i.e., Grade E-0 (Zero emission of Formaldehyde) furniture Donation to children with leukaemia

Table 22 The key CSR projects for the companies interviewed

Notably, economic responsibility was the most important aspect of corporate social responsibility for the majority of the managers interviewed. Companies often used one-off events to “show” their discretionary responsibility for marketing purposes. Companies also used CSR to promote the image of their organisations or products: “the best way to conduct corporate social responsibility is to produce and sell good quality products” (CEO of a Chinese company). For some

companies, producing and selling environmentally-friendly products were their approach to fulfilling their corporate social responsibility. However, in many cases, there were not well-accepted standards to define what environmental-friendly products meant. For example, as indicated in Table 22, a furniture company claimed that their major CSR project was selling children furniture with the so-called “Grade E0” plywood.³ According to the definition of this company and some other companies in furniture companies in China, Grade E0 stood for zero emissions of Formaldehyde, a hazardous chemical. However, Grade E0 didn’t exist in any Chinese National standard about plywood. Furthermore, secondary documents revealed that Grade E0 was just a marketing gimmick (for an exemplary secondary document regarding Grade E0 products, refer to <http://jiaju.sina.com.cn/bj/news/100833732.html>). Obtaining environmental certification was another CSR strategy for some companies. For instance, a flooring company claimed that one of their major CSR projects was getting environmental certification for wood, the key raw material for its flooring products. This certification was issued by an international NGO focusing on forest protection. According to the marketing manager of this company, “it’s easy to get this certificate. You just need to pay one million RMB. This NGO only has two people in China, who issued thousands of certificates.”

Data from the focal companies revealed that if the organisational members perceived that the organisations were just using CSR to promote their organisational image and made limited efforts towards CSR implementation, they felt demotivated. For example, “I personally felt passionate to implement CSRs in our supply chains. For instance, the labour-right issues, the environmental issues. But I feel so frustrated that our CEO is only interested in increasing the number of our chain stores, which mean making more profit” (sustainable SCM specialist of a food company).

In terms of stakeholder engagement in CSR issues, interviewees mentioned several types of stakeholders: the government, industrial associations, NGOs, academic institutions, Medias, customers, consumers, and beneficiaries of the firms’ philanthropic activities (for instance, poor students, teachers in poor

³ Plywood was the key raw material for the furniture produced by this company.

districts, children with leukaemia). According to most of the interviewees, the government had the most influence on firms' supply chains. The policies and practices of the government had significant impacts on firms' strategies and practices. Firms needed to put more energy and investment to maintain good relationships with the government in comparison to their relationships with the other supply chain stakeholders. Interestingly, most of the companies interviewed didn't include suppliers in their stakeholder lists related to their CSR implementation. Among the focal companies interviewed, only the furniture company regarded suppliers as their stakeholders in its CSR implementation and dissemination in its supply chain. Even in their routine supply chain practices, most of the firms interviewed kept arm's-length relationships with their suppliers. The buyer-supplier relationships were normally "contract-based" (quotations from several interviewees). The major reason was that companies in China often had cost-driven supply chains and tried to reduce the dependence on suppliers.

The furniture company was a special case. It had no manufacturing plant of its own. It selected a limited number of furniture manufacturers as its furniture suppliers. Its suppliers also depended heavily on this company, with at least 75% of their orders coming from it. The furniture company took a partnership approach to its suppliers in its traditional SCM practices and its CSR project implementation: "our company works closely with our suppliers, regarding the suppliers as partners" (CEO of the furniture company). The furniture company selected its suppliers carefully by only qualifying those furniture manufacturers whose values and organisational cultures were similar to those of the furniture company. It explained its visions and values to its suppliers thoroughly via documents, website information, supplier workshops and one-to-one meetings. The furniture company kept frequent contacts with its suppliers. The managers involved in the buyer-supplier relationships often contacted the managers from the suppliers' side face to face. It provided management and technical supports to the suppliers if needed. The furniture company thought it had a shared identity with its suppliers: "we, both the furniture company and the suppliers, are just in the same boat. We share opportunities and risks together" (procurement manager of the furniture company).

4.1.2 Data from supplier(s)

During the preliminary study, the researcher had difficulties in accessing suppliers. Some companies refused to attend the research when they were told that suppliers would be interviewed. Only one company (the furniture company) offered access to its supplier(s). The CEO of this company was very supportive of this research at the very beginning. However, after the researcher's interview with the first supplier, this company closed the door for its other suppliers. "Our CEO said it was enough to interview our employees from now on" (marketing manager of the furniture company, who was assigned by the CEO to support the researcher in data collection). Therefore, data in Section 4.1.2 came from one supplier only.

According to the supplier interviewed, "CSR" was a more familiar expression in comparison to "sustainability". Both of the supplier and its buyer (the focal company) used the expression "CSR" rather than "sustainability" in their daily communications, websites, and documents. According to this supplier, CSR meant producing good quality products that met or exceeded the national standards. The major CSR project between the supplier and its buyer was the sales and production of environmental-friendly furniture (Grade E0 children furniture, also refer to Section 4.1.1 for the project of Grade E0 children furniture).

This supplier kept close relationships with the focal company, its buyer. Both of the parties regarded each other as "partners" and invested heavily in the buyer-supplier relationship. The supplier showed strong identification towards its buyer "the success of the furniture company is our success, and the success of this company is also our failure...We, the two companies, are just like man and wife" (The general manager of the supplier). The focal organisation's CSR related identity was also salient to the supplier. The general manager of the supplier said, "the furniture company showed its commitment to and passion for this project. We are proud that we are involved in this project". Consequently, this supplier also showed commitment to the focal company's CSR project. Both of the companies worked closely with each other on this project. The supplier disclosed its production information to the focal company completely, with a quality control manager from the focal company working on the supplier's site on daily basis.

The supplier also supported the focal company on this project at its own expenses in some urgent cases.

As mentioned in Section 4.1.1, the case for this supplier and its buyer was a special case. One hundred percent of this supplier's order came from its buyer. The other suppliers for this buyer also depended heavily on this buyer, with at least 75% of their order coming from this company. Besides the buying power of the buyer and the mutual interdependence, the supplier also mentioned the following factors that strengthen its relational identification with the customer: 1) fit between the two companies in terms of business model, organisational culture, and values; 2) the clear vision of the buyer on environmentally-friendly furniture; 3) the good reputation and technical expertise of the buyer in China's furniture industry; 4) the frequent contacts between the buyer and the supplier.

4.1.3 Data from NGOs

For the NGO staff interviewed, "Corporate Social Responsibility (CSR)" and "Green supply chain management" were more familiar expressions compared to "sustainability". The majority of the NGOs being interviewed focused on the environmental aspect of sustainability. Data from NGOs uncovered that CSR/Green SCM was still at an early stage in China. Table 23 summarises the key CSR/Green SCM projects of the interviewed NGOs.

Table 23 reports that there were two main types of projects that NGOs conducted on firms' CSR-related issues: 1) monitoring the environmental performance of firms and their suppliers, and urging them for information-disclosure and performance improvement; 2) helping the firms to build a good reputation in terms of environmental issues. According to the NGOs, many firms on their monitoring list were reluctant to disclose their environmental information. Even some international firms who wished to improve the environmental performance of their supply chains reported difficulties in accessing the environmental information of their suppliers.

In addition, some big companies treated NGOs as tools to increase their environmental reputation. If the NGOs perceived that the companies only used CSR issues to maintain or promote their organisational image, they would dis-

identify with these companies and seek for their own benefit during their liaison with these companies. For example, the director of an NGO reported that a famous real estate company just used this NGO “to promote their organisational image as a good corporate citizen.” According to this director, “they (the real estate company) don’t deserve the respect that they have earned in the market” (Director of an NGO).

NGOs	Country of Origin	Location of Office	Major CSR / Green SCM Projects	Related firms
1	China	Beijing	Urging the brand companies and their suppliers to disclose their environmental information to the public Disclosing pollution map and helping the victims of environmental pollutions to get compensation from the related companies Environmental awareness events	IT, apparent and agriculture firms Companies having environmental pollution Companies wishing to have good environmental reputations
2	China	Beijing	Plastic reduction project: increasing the public’s awareness of using less plastic shopping bags	Automobile firms
3	China	Guangdong	Protection of ancient architectures Environmental-awareness events	Companies wishing to have good environmental reputations
4	USA	Guangdong	Providing training to firms and their suppliers on CSR related issues	Firms and their suppliers wishing to improve their CSR performance
5	China	Beijing	CSR performance evaluation	Stock-listed Chinese firms
6	China	Beijing	Urging the brand companies and their suppliers to disclose their environmental information to the public	IT, apparent and agriculture firms

Table 23 Key firm-related CSR/green SCM projects within the NGOs interviewed

According to the NGOs interviewed, power (or lack of) had a great impact on CSR issues in supply chains. Being the most important stakeholder in CSR/environmental issues, the government had great influence on the firms, NGOs and the other related stakeholders. “Without supporting policies and legal regulation, we had limited power to urge the firms and their suppliers to disclosure, not to say performance improvement” (a consultant of an NGO). Even large international companies felt that they “have no power to influence the suppliers” (Director of an NGO quoting a CSR manager of a famous multinational company).

4.1.4 Data from other evidence sources

Data from other information resources (participation observation of BBC Asia Climate, sustainability-related workshops, and secondary data) provided a broader picture of the status of sustainability implementation in China. Generally speaking, sustainable SCM was still at its early stage in China. CSR or Green SCM were more popular expressions in publications, workshops, and people's oral communications. For example, according to the annual CSR reports on Top 100 multinational companies (MNCs), state-owned enterprises, and private-owned enterprises in China, CSR was still at its early stage in China (Chen et al., 2009, 2010, 2011, 2012). Table 24 summarises the CSR-related performance for these 300 big companies in China. According to these reports, a significant part (over 60%) of these companies hadn't started their CSR efforts, and there was a significant lack of CSR information exposure. Some famous MNCs even got negative marks regarding their CSR performance and CSR information exposure (for instance, Suzuki, Adidas, Nike, and Disney).

Category	CSR performance	2011		2012	
		Number	%	Number	%
Great	These companies had complete CSR management system and sufficient CSR information exposure.	1	0.33%	3	1.00%
Elites/leaders	These companies were building CSR management system gradually and had comparably sufficient CSR information exposure.	23	7.67%	29	9.67%
Pursuers	These companies started CSR management and had basic CSR information exposure.	36	12.00%	42	14.00%
Beginners	These companies just started CSR-related effort. They had no CSR management system. They had insufficient CSR information exposure.	35	11.67%	41	13.67%
Bystanders	These companies were significantly lack of CSR information exposure.	205	68.33%	185	61.67%

Table 24 CSR performance of big companies in China
(Source: Chen et al., 2011: 12; 2012: 12)

In line with the annual CSR reports for firms in China (for a summary, refer to Table 24), data from the direct observation of the two CSR-related workshop/conferences and participation observation revealed that generally speaking, a considerable number of firms in China hadn't started their CSR efforts.

For example, for the stock-listed companies in China, if a company had its own CSR annual report, it could be considered as “advanced in CSR practices” already (CSR Report Awarding Conference for stock-listed companies in China, 2012). Figure 18 summarises the major responsibilities of Chinese CSR professionals according to a national-wide survey of the CSR professionals. Notably, the majority (81.3%) of the participants reported philanthropic events as their major responsibilities. Meanwhile, only 5.66% of the participants indicated that they were involved in integrating CSR components into supply chains (<http://www.chinacsmap.org>). In accordance with the major responsibilities of CSR professionals mentioned in Figure 18, data from other secondary sources and the researcher’s observations revealed that the key stakeholders involved in firms’ CSR practices were the following parties: the government, media, customers/consumers, people in needs, NGOs, and consulting companies (mainly for CSR reports). Suppliers were seldom involved in firms’ CSR practices.

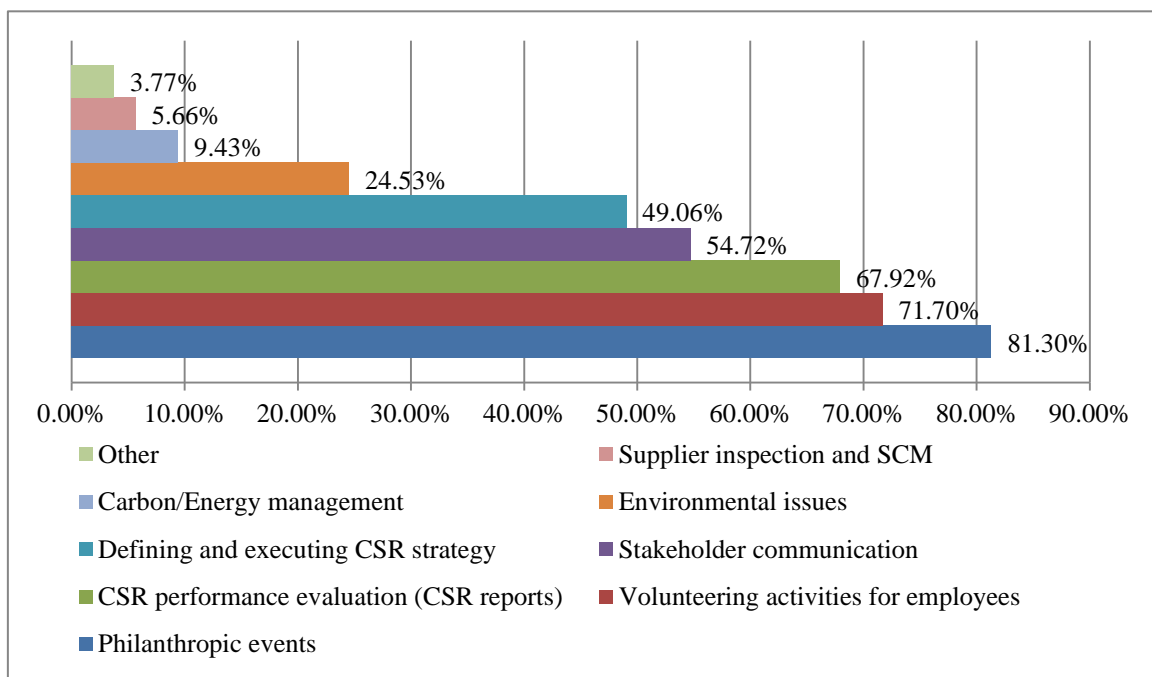


Figure 18 Key responsibilities of CSR professionals in China
(Source: <http://www.chinacsmap.org>)

4.1.5 Summary of the preliminary study

Table 25 summarises the data from focal companies, supplier(s), NGOs, and other resources in the preliminary study. Notably, there was limited data from suppliers. The only supplier interviewed was from a special case of heavy mutual

interdependence between the buyer and its supplier(s). Table 25 reports that several themes emerged from different sources of evidence. The following paragraphs discuss these themes.

Items	Data from focal firms	Data from supplier(s)	Data from NGOs	Data from other sources
Buzzwords and their meanings	“CSR” Philanthropies; Compliance; Economical responsibility, i.e. making profit	“CSR” Compliance or beyond compliance	“CSR” Compliance “Green CM” Information disclosure and compliance on environmental performance	“CSR” Philanthropies (events, foundation) Good corporate citizen “Green SCM”
Major Projects	Helping the people in needs (Philanthropic events) Compliance projects within the organisation and in supply chains	Difficulties in getting access to suppliers Producing environmentally-friendly products	Monitoring the environmental performance of firms and their suppliers; Helping firms to build good reputation through environmental awareness events	Over 60% of top 300 companies in China hadn’t started their CSR practices Little CSR efforts in supply chains Philanthropic events Volunteering activities of employees CSR reports
Key Stakeholders	Government as the most important stakeholder Media, NGOs, customers, community, people in needs, industrial association, and universities	Government as the most important stakeholder Customers, designer, Tier-1 and Tier-2 suppliers (in a special case of mutual dependence)	Government as the most important stakeholder Firms and their suppliers, victims of environmental pollution, other NGOs, community	Importance of governmental policies/regulation Media, NGOs, customers, employees, communities, people in needs, universities
Stakeholder relations	Contract-based relationships with suppliers Partnership with suppliers (in a special case of mutual dependence)	Difficulties in getting access to suppliers Partnership (in a special case of mutual dependence)	Low supply chain transparency Firms had limited control and monitoring of their suppliers	Low supply chain transparency
Shared identity	Inter-organisational relationships were normally based on one-to-one contact No evidence for shared identity	Inter-organisational relationships were based on one-to-one contact No evidence for shared identity	Firms’ relations with its stakeholders were normally based on one-to-one contact There were collaborations among NGOs	No evidence for shared identity

Table 25 Data summary from different sources of evidence in the preliminary study

First, generally speaking, sustainability was still in its infancy in China. “CSR” or “green SCM” were more popular expression compared to “sustainability.” At the time the fieldwork for this study took place, many firms in China regarded

economic responsibilities as their major corporate responsibilities and were not yet at the stage of compliance in terms of their social (e.g. labour rights) and environmental responsibilities. Consequently, there existed low transparency about CSR-related information of firms and their supply chains.

Second, there were potential disagreements around CSR-related identities between different stakeholders. For example, many Chinese firms regarded economic responsibilities (making money) as their major responsibilities while philanthropy and compliance were viewed as their complementary corporate responsibilities. In comparison to the focal companies' emphasis on the economic aspect of sustainability, many NGOs emphasised the environmental aspect of sustainability. Even within the focal companies, there were potential disagreements between different stakeholder groups. For example, some employees thought that CSR meant compliance with the national rules, regulations, and standards in terms of quality assurance, social issues, and environmental issues, while some leaders regarded making profits as the companies' major responsibilities. Third, many firms often used the metaphors "CSR" or "green SCM" to promote their organisational images and market their products but made a limited commitment to and efforts towards their social and environmental responsibilities in their supply chains. In addition, if internal stakeholders (like employees) and external stakeholders (like NGOs) perceived significant gaps between the firms' intended identity (good corporate citizens paying attention to CSR issues) and their actual identity (paying attention to making profit and ignoring their compliance responsibility and social/environmental impacts), they reported becoming demotivated in CSR implementation and even dis-identifying with these companies.

From the relational perspective, the government was the most important stakeholder in sustainability issues as well as firms' daily operations. Data from firms, supplier(s), NGOs, and secondary data provided evidence that the government played an important role in companies' sustainability implementation by setting up necessary policies and mechanisms. Notably, among the seven interviewed firms, only one firm which relied heavily on its suppliers viewed suppliers as its stakeholders in its CSR issues. Even in their regular procurement practices, most of the firms kept contract-based relationships with the majority of

their suppliers. In line with firms' approaches to their suppliers on CSR issues, data from NGOs and secondary data provided evidence of low supply chain transparency and firms' limited monitoring of and communications with their suppliers. The researcher's difficulties in accessing the suppliers during data collection also reflected the low supply chain transparency and the limited supplier engagement in firms' CSR practices.

There was a shared identity between the furniture company and its supplier(s) in both its traditional SCM practices and major CSR projects (production and sales of environmentally friendly furniture). The focal company and the supplier(s) interviewed both felt that they had shared values, business opportunities, and thus shared the risks together. There was a high level of trust, commitment, information sharing between the focal organisation and its supplier(s). The shared identity was salient because of the following factors: 1) fit between the focal company and its supplier(s) in terms of business models, organisational values, and cultures, 2) the focal company's clear visions and explicit communications with the suppliers, 3) the good reputation and technical expertise of the furniture company, and 4) interpersonal contacts. The furniture company was a special case due to the high interdependence between the focal company and its suppliers, given that the furniture company had no manufacturing plants of its own, and the majority of the suppliers' orders came from the furniture company.

4.2 Research context for the three cases

4.2.1 The BIO system and its sustainable procurement

The main body of evidence of the fieldwork came from the public sector BIO organisations. BIO was a system of organisations that took actions globally on a wide range of issues, including peacekeeping, peace-building, conflict prevention, humanitarian assistance, sustainable development, environment and refugee protection, disaster relief, counter-terrorism, disarmament and non-proliferation. There were different organisations within the BIO system, which were independent legal entities. Most of these organisations had their own procurement functions. There were four common procurement principles among these organisations: 1) best value for money, 2) fairness, integrity, and

transparency, 3) effective competition, and 4) in the best interest of the BIO organisation. The majority (more than 99%) of BIO procurement was conducted via the tendering/bidding process through the BIO common on-line procurement system. Nearly all the suppliers that wanted business from BIO needed to register themselves in this system. They needed to go through the BIO's tendering process to win their contracts. To ensure fairness, transparency, and effective competition, the BIO organisations defined clearly all the requirements for a certain contract and put these criteria in their tendering documents.

4.2.2 Sustainable procurement in BIO

BIO started its sustainable procurement⁴ initiatives in 2007. "Sustainable procurement" was the official expression used in BIO's publications, documents, and daily communications. According to BIO's definition on sustainable procurement, the central action of BIO's sustainable procurement was to integrate social and/or environmental requirements, specifications and criteria into BIO's procurement practices. BIO expected to use its significant purchasing power to deliver key policy objectives in sustainable development and influence markets towards innovation and sustainability.

BIO started its sustainability efforts internally by measuring, reporting and reducing greenhouse gas emissions in the offices of almost all the BIO organisations. Different BIO organisations had different levels of ambition when it came to how far and how fast they wanted to implement sustainable procurement. The market situation was different from one location to another, and between different product chains. Therefore, there wasn't any BIO-wide rule/policy for sustainable procurement. In 2013, eighty percent of the BIO organisations reported their sustainable procurement practices in their annual procurement reports. The majority (70%) of the BIO organisations claimed that by the time of reporting they had started sustainability initiatives to some extent. However, according to BIO annual procurement report (2013), sustainable procurement was generally in its early stages in the BIO system. Most of the BIO

⁴ Instead of sustainable SCM, "sustainable procurement" was the official expression in the BIO system. In the three cases presented in Sections 4.3 to 4.5, IO1 and IO3 used the expression "sustainable procurement". IO2 case used the expression "green procurement". In order to reflect the reality of the case data, these official expressions are used when presenting these cases respectively.

organisations were still in the requirement definition stage. In other words, these BIO organisations were still defining for which procurement categories should sustainability criteria be included in the tendering and contracting documents.

4.2.3 Overview of the cases

The following three cases present sustainable procurement implementation of three organisations in the BIO system. These three focal organisations (IO1, IO2, and IO3) had different mandates, different organisational structures, and different supply chain structures. These organisations also had different progress and challenges in terms of sustainable procurement implementation and stakeholder engagement in sustainable procurement. Appendix E lists the key procurement categories of IO1, IO2, and IO3. Appendix F presents their organisational structures. Appendix G summarises their key sustainable procurement projects.

There were three groups of interviewees in each of these cases. Within the three BIO organisations, two types of procurement staff were interviewed according to BIO's definition of its procurement force: procurement policymakers and procurement practitioners. Procurement policymakers referred to the senior procurement staff such as procurement directors, deputy procurement directors and other procurement staff defining the procurement policies and sustainable procurement strategies. Procurement practitioners referred to the junior/middle-level procurement staff dealing directly with routine procurement activities (such as sourcing, tendering, supplier management and contract management). Procurement practitioners being interviewed were from both the headquarters and the field/country offices. Besides procurement policymakers and procurement practitioners, suppliers were also interviewed.

Each of the cases starts with a brief introduction to the organisation and its supply chain. Besides the interview data, data from documents and websites were also collected and analysed. Hence, each case presents the data from the following four sources of evidence: 1) publications, documents, and website information about the organisation and its sustainable procurement; 2) views from procurement policymakers; 3) views from procurement practitioners; and 4) views from suppliers. The contents of these four sources of evidence are then analysed in detail.

Although only suppliers were interviewed as external stakeholders, the data from different sources revealed the focal organisations' relationships with other supply chain stakeholders, such as governments, funders/donors, NGOs, and beneficiaries. Data emerged from the three cases revealed that there were mainly two types of identities that focal organisations had during their sustainable procurement implementation. Core identities of the focal organisations reflected the key characteristics of the focal organisation's function and traditional procurement practices. Sustainability-related identities reflected the key characteristics of the focal organisation's sustainable procurement implementation. Each case ends with a summary of the case.

4.3 International Organisation 1 (IO1)

This case examined the sustainable procurement practices and the identity-related issues in the stakeholder relationships during sustainable procurement implementation for International Organisation 1 (hereafter "IO1") within the BIO system. The case was based on the data collected from IO1's headquarters and its field/country offices as well as data on suppliers based in Europe, America, and Africa.

IO1 was the only self-funded organisation within the BIO system. With funding coming from the services it provided. Hence, it had a significant need for promoting its organisational image and marketing its services. Its supply chain was dynamic and complex, with most of its suppliers being linked to projects and 50-70% of its procurement were services. Generally speaking, IO1 kept arm's-length relationships with most of its suppliers but adopted a partner approach to its donors/clients. For its top management and for those involved in procurement, humanitarian issues, cost efficiency and procurement ethics (transparency and anti-corruption) had higher priorities than including social and environmental criteria in its procurement practices. Consequently, IO1 seldom engaged their suppliers in its sustainable procurement practices. Its major sustainable procurement initiatives were within the organisation and in collaboration activities with other BIO organisations for knowledge sharing and requirement definition.

4.3.1 Data from documents and publications

The organisation and its supply chains

With its headquarters and procurement department in Denmark, IO1 was an independent organisation within the BIO system. It used to be a branch of IO3 and became an independent organisation in 1995. Unlike the other organisations in the BIO system, IO1 was self-funded. It acted as a service provider by offering three different types of services to its clients or donors: 1) advisory services: building national capacity in its core mandated countries and areas of project management, procurement and infrastructure; 2) implementation services: providing management services to its partners' projects; 3) transactional services: providing stand-alone human resource management and procurement services.

IO1's role as a self-funded service provider led to its emphasis on the relationships with its "partners". The expression of "partners" referred to IO1's clients or donors, including large international foundations, governments, and other BIO organisations. The expression of "partners" was widely used in IO1's mission and vision statement, other formal documents, and website information. IO1 generally adopted a partnership approach to its "partners" and highlighted the priorities, needs, and interests of its "partners." The priorities and needs of the "partners" dictated the scope, focus, and location of IO1's work.

IO1 had two types of suppliers: suppliers with long-term agreements and suppliers without long-term agreements. Most of the IO1 suppliers were project-based. They had no long-term agreements and often had one-off business with IO1. Hence, the supply base of IO1 was very dynamic, with more than 5000 suppliers and more than 26000 procurement orders in 2013. The procured services and products were much diverse, with its procured items varied "from a goat to a complicated equipment" (IO1-PP4). In 2013, it procured goods and services from 175 countries in the world, with more than 70% of procured goods and services from developing countries or countries with economies in transition. Procurement of services accounted for 52% of the 2012 procurement and 70% of the 2013 procurement. Appendix E lists the major services and products that IO1 procured in Year 2013.

During 2000 and 2001, IO1 fell into financial crises due to poor change management and lack of funding resources. Therefore, cost efficiency was extremely important in IO1's operations (including procurement practices) since its 2000-2001 financial crises.

IO1's organisational structure (Appendix F.1) reflected several important characteristics of this organisation. First, like IO3 and some other BIO organisations, IO1 highlighted the importance of high ethical standards by having an Audit and Investigation Group and an Ethics Office. IO1 also had these two functions in its organisational structure but IO2 did not. Second, since IO1 was self-funded via its services, it invested heavily in its organisational image by having a Communication Practice Group and a Corporate Performance and Management Group. In comparison, neither IO2 nor IO3 had these two functions related to organisational images. Interestingly, as indicated in Appendix F.1, all three practice departments in IO1 were named with the term "sustainable": Sustainable Project Management, Sustainable Infrastructure, and Sustainable Procurement Practice.

The secondary data in this case uncovered several important characteristics of IO1. First, being an international organisation, IO1 operated in a humanitarian/peace-building context and had humanitarian supply chains, with its emphasis on cost-effectiveness, transparency, and time efficiency in its operations (including procurement practices). Second, being self-funded as a service provider, IO1 depended heavily on its "partners" and had great needs for promoting its organisational image and marketing its services. Accordingly, its supply chain structure had the following important characteristics: 1) humanitarian supply chains; 2) diverse, service-based procurement and supplier base; 3) international supply chains with diverse country contexts. These important characteristics of IO1 had great impacts on its approaches to doing business and dealing with its supply chain stakeholders. The following paragraphs introduce the important traits of IO1's traditional procurement practices.

IO1's procurement practices

There were several important documents related to IO1's procurement practices. First, IO1's Financial Regulations and Rules set forth the specific regulatory framework for procurement at IO1. In compliance with IO1's Financial Regulations and Rules as well as other applicable normative documents, IO1's procurement manual provided procurement practitioners with procurement procedures, instructions, and further guidance for carrying out the procurement activities effectively and efficiently. This manual governed IO1's procurement of all goods, services, and works as well as the standards of conduct for all IO1 personnel involved in the procurement process. Regarding suppliers' behaviours in doing business with IO1, IO1 required its suppliers to obey the BIO Code of Conduct for Suppliers. In addition, IO1 strongly recommended other supporting agreements and guidelines (e.g. the Global Compact) to their suppliers.

IO1's core values in procurement practices were reflected in its procurement principles. In IO1's Financial Regulation, the following procurement principles were defined to provide a common framework for IO1 procurement: 1) best value for money; 2) fairness, integrity, and transparency; 3) effective competition; 4) the best interest of IO1 and its "partners". According to these procurement principles, IO1 emphasised cost efficiency, high ethical standards, and completion among suppliers. Notably, IO1 was the only organisation within the BIO system that included the interests of "partners" (clients and funders/donors) in its procurement principles. Thus, the fourth principle implied that the needs and requirements of IO1's "partners" played a crucial role in IO1's procurement decisions and practices.

Notably, in comparison to its emphasis on its relationships with its "partners" (donors, clients and the other BIO organisations), IO1 didn't include suppliers on its partner list and often called suppliers "vendors" in its documents, publications, and website. Accordingly, documentary evidence uncovered that IO1 kept an arm's-length relationship with its "vendors". According to the IO1 procurement manual, all the potential suppliers wanting business from IO1 needed to go through the bidding process. Cost effectiveness and competition were the major consideration in IO1's contract awarding to its suppliers. Furthermore, IO1's

communications with suppliers should normally be conducted via written means, so as to ensure the transparency of the communications.

Sustainable procurement

As presented in the previous paragraphs about IO1 and its operations, the expressions “sustainable” or “sustainability” could be found in IO1’s mission, vision, organisational structure, website information, other documents (e.g. the procurement manual), website, and publications. In comparison to IO2’s commonly-used expression “green procurement”, IO1 used the expression of “sustainable procurement” in its documents, website, and publications. It adopted the definition of the BIO system, which was mentioned in Section 4.2.

On its website, IO1 declared its goal of sustainable procurement as making sustainability an integral part of all its procurement practices. Correspondingly, in its website, IO1 made its commitment to sustainable procurement as progressively making sustainable procurement its default mode of procurement. Sustainability was one of the three key messages in IO1’s 2014-2017 Strategic Plan. The other two key messages were focus and excellence, which were in line with IO1’s role as a service provider. IO1 intended to address a wide range of policy objectives through sustainable procurement, including: protection of labour rights, mitigation of adverse environmental impacts, poverty eradication, support for local development, and the achievement of Millennium Development Goals. Since governments were IO1’s key “partners”, IO1 expected that through its services on sustainable procurement (for example, sustainable procurement training and sustainable procurement related advisory services), it could contribute to national capacity building in the fields of economic growth, reduction of environmental impacts and social justice & inclusion.

The IO1 website promoted IO1’s expertise in sustainable procurement in many places. For instance, in 2013, IO1 achieved a “silver” level rating after completing the Sustainable Procurement Review conducted by Chartered Institute of Purchasing & Supply. According to its website, IO1 was very proud of this certification, because this reward recognized their efforts towards and achievement in sustainable procurement. In addition, IO1 highlighted that its partnership with and its participation in a high-level advisory committee for the

new global scheme for sustainable procurement. IO1 also listed sustainable procurement (especially training on sustainable procurement) as the top 2013 achievement in the work review of its procurement department. With its declared expertise in sustainable procurement, IO1 promoted its sustainable procurement related services (sustainable procurement training, workshops and advisory/consulting services) in its website.

Although IO1 demonstrated its ambition, commitment and expertise to sustainable procurement in its vision, mission, strategic plan, website and other advocacy documents, the review of additional documents uncovered some inconsistencies in IO1's documents/formal communications. First, sustainability was not included in IO1's procurement principles. Since the procurement principles provided strategic guidance on IO1's procurement and contracting practices, the absence of sustainability in IO1's procurement principles implied that sustainability was not one of the strategic priorities in IO1's actual procurement practices. Furthermore, the IO1 procurement manual recognized the potential conflicts between sustainable procurement and its existing procurement principles. This document pointed out that including social and environmental criteria in IO1's tendering documents might restrict competition among suppliers.

Second, IO1 announced its commitment to sustainable procurement and defined guidance on integrating sustainability into its whole procurement cycle (including the stages of planning, requirement definition, sourcing and selecting suppliers, evaluation, and contract management). However, unlike IO2, it didn't define any specific sustainable procurement strategy. Therefore, there was no explicit plan for how IO1 would progressively integrate sustainability into its procurement practices. Table 26 compares the guidance in the procurement manual (Version 2014) and the actual procurement practices stated in the rolling working plan of the sustainability team in IO1's procurement department (status up to the end of 2014). As indicated in Table 26, there were considerable gaps between the guidance in the procurement manual and actual procurement practices. The third inconsistency was about IO1's approach to supplier liaison in sustainable procurement. IO1's procurement manual defined open, inclusive and transparent communications with its suppliers as an essential component of its sustainable

procurement approach. However, this approach was not reflected in IO1’s rolling work plan regarding sustainability. As shown in Appendix G, according to the work plan of the sustainability team in IO1 procurement department, key sustainable procurement projects in IO1 focused on the following aspects: 1) internal efforts (e.g. training to IO1 staffs, building internal sustainability assessment tools); 2) training and advisory services to its “partners”; 3) Policy-oriented projects, such as procurement from women-owned and local businesses in developing countries. There was no evidence that IO1 had any serious sustainability-related dialogues with any suppliers.

Phase in procurement cycle	Key projects in the most updated Procurement Manual (Version 2014)	Actual progress of the projects (by end of 2014)
Procurement planning	<ul style="list-style-type: none"> · Use a “sustainable title” for the contract; · Assess the social/ environmental impact of the procurement; · Research market for sustainable products. 	<ul style="list-style-type: none"> · A sustainability assessment tool had been developed by the end of 2013 and was first put into use in 2014 by an IO1 country office in a developing country.
Requirement definition	<ul style="list-style-type: none"> · Use technical standards and criteria for environmental labels; · Use performance & functional requirements; · Specify production/process methods. 	<ul style="list-style-type: none"> · Environmental criteria have been defined for certain product categories by the end of 2014.
Sourcing and selecting suppliers	<ul style="list-style-type: none"> · Assess suppliers social and environmental technical capacity; · Pre-qualify suppliers that minimize sustainability risks. 	<ul style="list-style-type: none"> · Suppliers for certain categories were asked to provide environmental and social certification during the tendering process
Evaluation	<ul style="list-style-type: none"> · Use pre-determined sustainability evaluation criteria; · Consider life cycle costs in the financial evaluation. · Background checks on suppliers’ social/ environmental responsibility. 	<ul style="list-style-type: none"> · Suppliers had been evaluated by documents only; · Few on-site supplier evaluations had been conducted
Contract management	<ul style="list-style-type: none"> · Include contract performance clauses furthering sustainability; · Work with suppliers to improve sustainability impacts; 	<ul style="list-style-type: none"> · According to the interviews, suppliers hadn’t been contacted by IO1 for sustainability issues.

Table 26 IO1’s key sustainable procurement projects
(Summarised from the IO1 2014 procurement manual and the 2014 rolling work plan for IO1’s sustainability team)

The fourth inconsistency in the documentary evidence was IO1’s declared ambition on sustainability versus the low management levels of its sustainability team in the overall organisational structure. There were several teams from IO1’s procurement practice group: 1) procurement systems and analytics; 2) BIO e-procurement; 3) sourcing; 4) policy and knowledge management; 5) advisory services and business development; and 6) Sustainability. In comparison to the other team leaders, the team leader in the sustainability team was one

management level lower. The lower management level of the sustainability team leader implied that sustainability might not be part of the strategic focus in IO1's actual operations in spite of the attention drawn to sustainability on IO1's website.

4.3.2 Data from policymakers

The organisation and its supply chains

According to the IO1 procurement policymakers, there were several important traits of IO1. First, IO1 was an integrated part of the BIO, belonging to the public sector and working in a humanitarian context. Therefore, humanitarian issues had high priority in IO1's daily operations. For example, a policymaker put an emphasis on humanitarian issues in the following: "I haven't seen any model example for sustainability, in the field, never. It's not an issue...And I think we really have to put humanitarian above sustainability" (IO1-PM3). In line with its priority on humanitarian issues, IO1 often emphasised the delivery time in its procurement practices. The second important trait of IO1 was that IO1 was self-funded and acted as a service provider. Therefore, it had limited resources. Consequently, IO1 was "very dependent" (IO1-PM3) on its "partners" and kept close relationships with them: "I think we have trust with our clients and donors. We listen to each other to see how a project can go on well in a longer term" (IO1-PM1). Third, being a part of the BIO system, some of IO1's projects/practices had some sustainability components, but from a broader perspective. For example, "we are BIO. What we are doing is partly about sustainability, about sustainable development of the world" (IO1-PM1). Lastly, regarding its supply chain structure, the majority of IO1's procurement was based on projects and subject to the context of the countries involved.

IO1's procurement practices

In accordance with its features of public procurement and its humanitarian focus, IO1 had high ethical standards in its procurement practices. At the same time, limited resources led to IO1's emphasis on cost effectiveness and inherent competition among suppliers: "we have to have fairness, integrity, transparency, and open competition" (IO1-PM3). From the relations perspective, IO1 procurement policymakers mentioned the following important characteristics in

IO1's supply chain relationships. Although IO1 normally adopted the partnership approach during its liaison with its "partners", it generally kept arm's-length relationships with its suppliers. IO1 policy makers showed their worries about the paperwork-based relationships with the suppliers: "from my experience here, we didn't visit any suppliers. And I find if we are not visiting, it's easy for any person to make anything in the piece of paper" (IO1-PM2).

IO1 adopted an arm's-length approach with most of its suppliers due to the following reasons: 1) the tradition of the BIO system: "traditionally speaking, BIO treats the vendors as 'they' instead of 'we', and there is a 'they' and 'we'." (IO1-PM1); 2) the organisational culture: "we don't have too many supplier visits and supplier inspections here. And you can easily put this into culture" (IO1-PM2); 3) supply chain characteristics: "the major reason for that (arm's-length supplier relationship) is that most of the commodities we are buying are for infrastructure and health products, which are very much based on projects and country-specific" (IO1-PM2).

Sustainable procurement

All the three procurement policymakers provided similar theoretical definitions for sustainable procurement, i.e., considering the social, economic and environmental aspects of procurement practices. However, when talking about major projects related to sustainable procurement and their implementation status, different procurement policymakers mentioned different anticipated characteristics and the actual progress of sustainable procurement implementation. Therefore, the following paragraphs will present the data from the three interviewed policy makers respectively.

According to IO1-PM1, the major sustainable procurement projects include: 1) on-line (for IO1 staff only) and off-line (for both internal and external audience) sustainable procurement training; 2) internal awareness program for sustainable procurement; 3) purchase of carbon emission certificates; 4) tool development and knowledge sharing related to sustainable procurement; 5) planning to buy from women-owned business; 6) publications for sustainable procurement; 7) designing female toilets for a school in Africa. When describing these projects,

IO1-PM1 emphasised the partnership with the other BIO organisations, internal awareness-raising, and internal and external capacity-building. Meanwhile, IO1-PM1 emphasised the impacts that IO1 could make in sustainable procurement implementation and thought sustainable procurement “is important for our practices and our image”. IO1-PM1 expressed ambition for sustainable procurement: “we want to be senior as leaders in the field of sustainable public procurement.”

In line with the ambition of being the leader of sustainable procurement, IO1-PM1 thought IO1 actually had a “leadership role” in sustainable procurement. However, IO1-PM1 also admitted that there were “big barriers with governments and funders” since they didn’t really buy in to the concept of sustainable procurement. Without the relevant inquiries from donors and funders, IO1 was not in a position to integrate the sustainability-related criteria into its tendering documents and contracts. There were also considerable challenges and resistances from the suppliers’ side. In consideration of the barriers from both the donors/suppliers, IO1-PM1 thought IO1 should take a gradual approach to engaging its supply chain stakeholders, with consideration to the country context and the consideration of “not crossing the lines of transparency and fairness to everybody.” By the time of the case study, IO1 only “ask them (suppliers) to join the global compact.” This request was not mandatory. In other words, joining the Global Compact or not wouldn’t affect IO1’s contract rewarding to its suppliers.

According to IO1-PM2, supplier relationships were important in sustainable procurement. Sustainable procurement needed more frequent and open communications with suppliers. IO1-PM2 suggested that sustainable procurement involves multiple supply chain stakeholders and “is about more than just looking at our suppliers”. Similar to IO1-PM1, IO-PM2 emphasised the impacts that IO1 could make in the countries in which IO1 worked. Therefore, IO1-PM2 thought a good example for IO1’s sustainable procurement project was IO1’s advisory service of helping a developing country in Asia build up its national central public procurement function for health products.

In comparison to IO1-PM1’s ambition of making IO1 a sustainable procurement leader in the public sector, IO1-PM2 thought IO1 was “nearly a loser among BIO

and in public procurement”. Meanwhile, sustainable procurement was still at its early stage in IO1, with little supplier engagement. The major reason was that there was a lack of legal/policy support regarding SP and consequently potential conflicts between sustainability and the existing procurement principles. As senior a person as the vice procurement director, IO1-PM2 still felt the needs for a legal framework to “protect” the procurement team during sustainable procurement implementation.

As mentioned in the part about IO1 procurement policymakers’ views on IO1’s core identity, IO1-PM3 put emphasis on humanitarian issues and thought humanitarian issues should be prioritised above sustainability. IO1-PM3 also highlighted the consideration of the country contexts as well as the principle of open competition during sustainable procurement implementation. In addition, IO1-PM3 thought that sustainable procurement should have broad meanings and be related to the long-term run of procurement practices and the whole operations of the organisation. According to IO1-PM3, a crucial step in sustainable procurement was “about how to integrate sustainability into the procurement policy, also about how to determine how prescriptive it should be, how mandatory it should be?”

Similar to IO1-PM2, IO1-PM3 also thought sustainable procurement was at its early stage in IO1. The major reason for that was the lack of supportive policies and legal framework as well as insufficient commitment from IO1 senior management: “we are not at that phase yet: to add the sustainability as the fifth principle in the financial regulations and rules. And there is some reluctance from the management actually because it is too much of commitment.” In comparison to IO1-PM1’s ambition of making IO1 a sustainable procurement leader in the public sector, IO1-PM3 thought there were still needs for increasing IO1’s internal awareness about sustainable procurement. There wasn’t any strategy for sustainable procurement implementation in IO1: “you (referring to the researcher) are the first one to think about the strategy.”

4.3.3 Data from procurement practitioners

The organisation and its supply chains

The IO1 procurement practitioners interviewed mentioned several important characteristics of IO1 as an organisation. First, IO1 belonged to the public sector and worked in a humanitarian context. Second, as a service provider, it had “limited time and limited money” (IO1-PP1) and relied heavily on its clients and donors as well as countries involved in the projects. The third important characteristic was that some of the IO1 operations/projects were already related to sustainability before adding the element of sustainable procurement. Notably, in the projects identified by PP4 as having a sustainability component, IO1 was described as focusing on the strategic level of sustainability rather than at the procurement practices level: “IO1 tries to implement the so-called strategic program... How can we reduce overfishing of this river? How can we reduce overfishing of this lake? How we can ensure there is enough fish?” (IO1-PP4). Therefore, in comparison with governments and NGOs involved in these projects, suppliers were not important stakeholders in these projects. Lastly, in terms of supply chain structure, IO1’s procured products and services were normally project-based and wide-ranging, with an enormous number of suppliers: “if you ask me how many suppliers we have, I would ask you: ‘Do you mean this week?’” (IO1-PP1).

IO1’s procurement practices

The procurement principles of transparency, cost effectiveness, and competition were mentioned extensively by the procurement practitioners being interviewed. IO1 procurement practitioners normally looked at “the cost efficiencies” (IO1-PP3) of the items and assets that they purchased. Meanwhile, IO2 had high ethical standards in its procurement practices and had “a transparent procurement process” (IO1-PP1).

According to the procurement practitioners, IO1 generally kept arm’s-length relationships with most of its suppliers. Even the suppliers obtaining long-term agreements from IO1, IO1 kept limited contacts with them. For example, “I never contacted any supplier by any means personally. We just award the contracts to the suppliers according to the information that they provide via our online procurement system and do the following-up of the contracts in the system” (IO1-PP5). Consequently, the assessments on suppliers were mainly based on

paperwork. One major reason for the arm's-length supplier relationship was the policies and rules in IO1: "the legislation prevents us from having close relationships with suppliers" (IO1-PP1). There seemed to be certain fears for some procurement practitioners to contact the suppliers because of the procurement principle of transparency: "in procurement, we have to be very careful, not to be too close to the suppliers...the corruption concern" (IO1-PP5).

IO1's sustainable procurement

Different procurement practitioners had different understandings of the concept of sustainable procurement. The narrow definition of sustainable procurement referred to including environmental and social criteria in procurement practices, especially in the tendering process. The broad definition of sustainable procurement looked at the whole procurement cycle and the supply chain, from suppliers to end users, for example: "it (sustainable procurement) is looking at the different sides of the variables in social, economic and environmental aspects that enable us to make corporate decisions to improve or to make sure that there is no harm in the process either from the source side or the end users' side" (IO1-PP3). In this broader definition, the importance of supplier assessment was emphasised: "all the variables are to be properly assessed" (IO1-PP3). Whether procurement practitioners provided a narrow or a broad definition of sustainability, a common perception about sustainable procurement was that "sustainability is expensive" and would potentially affect competition among suppliers. Notably, a procurement practitioner being interviewed hadn't heard the expression "sustainable procurement" before the interview. For this procurement practitioner, the expression "sustainable" meant "able to continue over a certain period of time" (IO1-PP5) and thus sustainable procurement might mean "that we can conduct our procurement practices via sufficient funding and efficient cost control" (IO1-PP5).

Furthermore, the procurement practitioners who were interviewed had different views on sustainable procurement projects that IO1 conducted. According to the procurement practitioners in the headquarters, the key sustainability procurement projects were the procurement of CER (carbon emission reduction) certificates, procurement of environmental-friendly products (e.g. solar panels) and the

inclusion of environmental criteria for certain products in the tendering process. Notably, environmental/social criteria were only included in the tendering process if there were requests from donors/clients. In these projects, IO1 didn't discuss sustainable procurement related issues with its suppliers face to face. All the communications were done via the tendering documents or newsletters on the BIO on-line procurement system.

According to the procurement practitioners in field /country offices, there were few sustainable procurement projects in field/country offices: "the intention for sustainable procurement is there, and the problem is the implementation" (IO1-PP4). Cost effectiveness was still the priority for procurement practitioners. For example, "the sustainable procurement in this office has been taking with a slow pace at the moment. Just taking the traditional approach, basically only looking at the cost efficiencies of the items and assets that we purchase" (IO1-PP3). The only sustainable procurement project reported by procurement practitioners in field/country offices was the advisory service project of helping a developing country in Asia build up national central public procurement function (Also refer to Section 4.3.2. IO1-PM2 also mentioned this project). One procurement practitioner in a field office hadn't even heard the expression "sustainable procurement" before the interview. This interviewee was recommended by the IO1 sustainability team as a person who might have good knowledge about sustainable procurement. Therefore, this could imply there were more procurement practitioners in regional/country offices that hadn't heard about the expression of sustainable procurement and had limited knowledge about this topic. Notably, for procurement practitioners in both headquarters and regional/country offices, cost effectiveness and humanitarian issues remained higher priorities in comparison to social and environmental issues.

IO1 procurement practitioners generally perceived that "sustainable procurement is still in its early stage in IO1". In addition, some procurement practitioners even doubted whether IO1 was really implementing sustainable procurement. They thought sustainable procurement was used to enhance IO1's image. Hence, IO1 only took some basic steps towards sustainable procurement: "procurement can do some basic steps...One thing is what we can do for the image for entire IO1"

(IO1-PP2). Some procurement practitioners doubted the desire of management to implement sustainable procurement and expressed their frustration during sustainable procurement implementation: “we tried so hard to persuade the management to include sustainability in our procurement principles and failed... how can we have real sustainable procurement if our procurement director and deputy procurement director in charge of policy don’t believe in sustainability at all?” (IO1-PP8).

4.3.4 Data from suppliers

The suppliers seldom talked about IO1 as an organisation separately. They often combined the organisation, its procurement practices, and supplier relationships together. Hence, Section 4.3.4 will be divided into two parts only: 1) IO1 and its procurement practices; and 2) its sustainable procurement implementation.

IO1 and its procurement practices

Data from suppliers revealed several important traits of IO1’s core identity. First, humanitarian issues had higher priority in comparison to social and environmental issues. “our commercial customers are more demanding about sustainability issues because they are about branding...while BIO organisations are more demanding on on-time delivery...because delivery time is about lives” (IO1-S01). Second, IO1 had very high ethical standards with strict procedures and a silo structure. Consequently, the procurement practitioners had low flexibility and creativity during IO1’s procurement practices: “I am not jealous of the BIO procurement practitioners. You work with the guidelines or you disappear. Flexibility is not existing, and creativity is not existing ”(IO1-S01). Third, suppliers thought IO1 was a part of the BIO system, having many similarities as many other BIO organisations. Consequently, procurement practitioners sometimes just copied the approaches of other BIO organisations without taking sufficient market research and supplier inspection during their procurement practices: “when a new procurement officer is employed, they are told, with this company we buy this and this. The new procurement officer would assume that all the information about the contract is in good order...It is purely the issue of awareness, nothing else.” (IO1-S01)

In terms of supply chain relationships, suppliers generally didn't think they had close relationships with IO1. However, they expressed their needs for more interpersonal contact and inter-organisational discussions in the buyer-supplier relationships. For example, "it's more like a mechanical, cold process... It would be beneficial for IO1 to have more contact, more face-to-face meetings with suppliers, to evaluate the production feasibility, and understand some of the challenges that the suppliers are facing in this market" (IO1-S03). Besides little supplier engagement, IO1 also conducted little supplier inspection and verification, even with the suppliers with long-term agreements.

Sustainable procurement

From the suppliers' side, all the 5 suppliers defined sustainable procurement by integrating economic, social and environmental considerations into the procurement cycle. However, they emphasised the economic aspect of sustainability: "the driver of sustainability is certainly the economic aspect. If a company cannot make money, they would not survive in a long term" (IO1-S03). Furthermore, the suppliers highlighted the importance of buyer-supplier relationships in sustainable procurement. From the suppliers' perspective, a definition of what working together on sustainable procurement would typically look like: "both the supplier and the customer work together so that the partnership is initially beneficial, in such a way that it allows the required products that the purchasing organisation needs at competitive prices, and it allows the supplier to sell the products at fair prices, so that we can earn a profit" (IO1-S03).

In line with their emphasis on the economic aspect of sustainability, suppliers argued that the sustainability of daily procurement activities (e.g. stable procurement volume, in-time payment and demand forecast) were crucial to keeping the business sustainable. In comparison to the suppliers' views of sustainable procurement, none of the procurement practitioners included the customer-supplier relationship in their definition of sustainable procurement, nor recognized the impacts of daily procurement practices on sustainable procurement.

Suppliers' views on IO1's progress of sustainable procurement projects were very similar to that of the procurement practitioners in the field/country offices. Among

the 5 suppliers being interviewed, none said that IO1 had contacted them for any sustainability projects by any means. All of these 5 suppliers were either awarded long-term agreements or regular contracts from IO1. With more than a 15-year business relationship with the BIO system, IO1-S01 said: "I have been in business with 7 BIO organisations for years, and no BIO organisation, none of BIO procurement officers discussed any sustainability issues with me, in any sense that it might be...". IO1-S04 was the only supplier among the five interviewed suppliers that claimed they were asked by IO1 to join the global compact. "we are asked to join the global compact... There hasn't been any dialogue at all." To sum up, sustainability was either regarded by the suppliers as IO1's internal issue or something that was never discussed between IO1 and its suppliers. Furthermore, some suppliers thought that IO1 used sustainability implementation to promote its organisational image. For instance, "I really have the doubt whether IO1 is really looking into sustainability or just want it looks nice on the web pages "(IO-S01). Perceiving IO1's limited commitment to and efforts towards sustainable procurement, some suppliers expected a price increase in the name of "sustainability premium" (IO1-S02, IO1-S03).

As mentioned previously, none of the interviewed suppliers said they had been involved in the sustainable procurement projects initiated by IO1. But all the 5 suppliers reported that they had their own sustainability projects and were waiting for IO1 and other BIO organisations to discuss sustainability issues with them. For instance, IO1-S02 provided a set of examples of their internal and external sustainability projects and said, "none of the BIO organisations we worked with has discussed sustainability issues with us. It would be beneficial that someone in BIO has the awareness of this fact and have the dialogue with us." One major concern why the suppliers were not proactive in discussing sustainability issues with IO1 might be IO1's procurement principles of fairness and competition. In detail, if the suppliers created some specification (such as environmental criteria) themselves, they were not allowed to attend the bidding process.

According to the suppliers, there were several reasons why IO1 was slow in its sustainable procurement implementation. At the individual level, attitudes, know-how, and experiences of procurement practitioners had considerable impacts on their approaches to liaise with suppliers and their involvement in sustainable

procurement. In consideration of the rigid procurement procedures in IO1, some procurement practitioners took an extremely conservative approach, obeying the procedures with little proactivity, creativity, and flexibility: "I think people in BIO may be afraid of picking up the phone and talk to somebody...If they are not trained and educated in the right way internally before go externally...they don't know what they are allowed to ask" (IO1-S01). In addition, suppliers claimed that IO1's lack of a joint vision and its silo organisational structure led to IO1's uncoordinated actions in its sustainable procurement implementation. For example, "there is not a focal contact point for us from IO1. If there is no joint vision or goal, then you have somebody doing sustainability there who might not know about suppliers and procurement, but others are not actually into it" (IO1-S01).

4.3.5 Summary of the IO1 case

IO1 was an international organisation within the BIO system, often operating in a humanitarian context. It was self-funded as a service provider. IO1's supply chains were dynamic and complex, with a project-based supply base and big power of donors. Data from different sources revealed similar characteristics of IO1's core identity in its procurement practices. First, the four procurement principles represented the strategic elements in IO1's procurement: 1) best value for money; 2) fairness, integrity, and transparency; 3) effective competition; and 4) the interest of IO1 and its partners. Accordingly, IO1 emphasised cost effectiveness and time efficiency in delivery time. In addition, humanitarian issues had high priorities in IO1. IO1 had a very strict and procurement system and a silo organisational structure. From the identity orientation perspective, IO1 depended heavily on its donors/clients. Therefore, it adopted the partnership approach to its donors/clients. In contrast, IO1 generally kept arm's-length with its "vendors" (suppliers).

IO1 declared its commitment to and ambition on sustainable procurement on its website and in some of its documents. It intended to promote its expertise in sustainable procurement. However, in comparison to IO1 procurement practitioners and suppliers, IO1 procurement policymakers had different views about what sustainable procurement meant and their expectation out of

sustainable procurement implementation. In detail, IO1 procurement policymakers wanted to increase IO1's impacts and image and promote its advisory services through sustainable procurement implementation. They thought humanitarian issues had higher priorities than sustainable procurement, whereas suppliers and some procurement practitioners expected that IO1 would have open communications and closer relationships with suppliers during sustainable procurement implementation. Even within the procurement policymakers, there were controversies about what sustainable procurement meant to IO1. Consequently, there was inconsistency in the communications about sustainable procurement in IO1's publications, documents, and website information. Furthermore, there was no necessary formalization (e.g. policies, procedures, and contracts) supporting sustainable procurement and supplier engagement in sustainable procurement implementation. IO1's sustainable procurement projects focused on sustainable procurement training, sitting on various committees related to sustainable procurement, and providing advisory services. There was little supplier engagement in IO1's sustainable procurement implementation. Even within IO1, IO1 procurement policymakers provided insufficient sustainable procurement related communications to the procurement practitioners in regional/country offices. Consequently, both the procurement practitioners and suppliers didn't perceive a salient identity related to sustainable procurement. Some procurement practitioners and suppliers even thought that IO1 was using sustainable procurement to promote its organisational image. Perceiving IO1's limited commitment to sustainable procurement, IO1 procurement were afraid and reluctant to contact suppliers about sustainable procurement issues if there was no requirement from donors. Suppliers had low motivation, as well as little opportunity, access, and encouragement to talk about sustainable procurement issues with IO1 proactively. They even expected a price increase from IO1 in the name of "sustainable premium".

There were several identity-related issues related to IO1's sustainable procurement. First, according to IO1's internal stakeholders (e.g., procurement policymakers and procurement practitioners) and external stakeholders (e.g., suppliers), there were potential conflicts between IO1's core identity and its sustainability identity. Second, there were considerable inconsistencies between

IO1 procurement policymakers' intended identity (leadership and expertise in sustainable procurement) and the actually perceived identity from the procurement practitioners and suppliers. Third, the dysfunction of this identity inconsistency was reflected in low motivation and proactivity of procurement practitioners in engaging suppliers and other stakeholders (like governments and donors) in sustainable procurement. Externally, the dysfunction of this identity inconsistency was reflected in suppliers' low motivation and proactivity in discussing sustainable procurement issues with the procurement practitioners, as well as a potential to increase prices. Table 27 summarises the key findings in the IO1 case. Figure 19 outlines the context, process, and outcome of social identity issues in IO1's sustainable procurement. After presenting the IO1 case, Section 4.4 now presents the findings from the IO2 case.

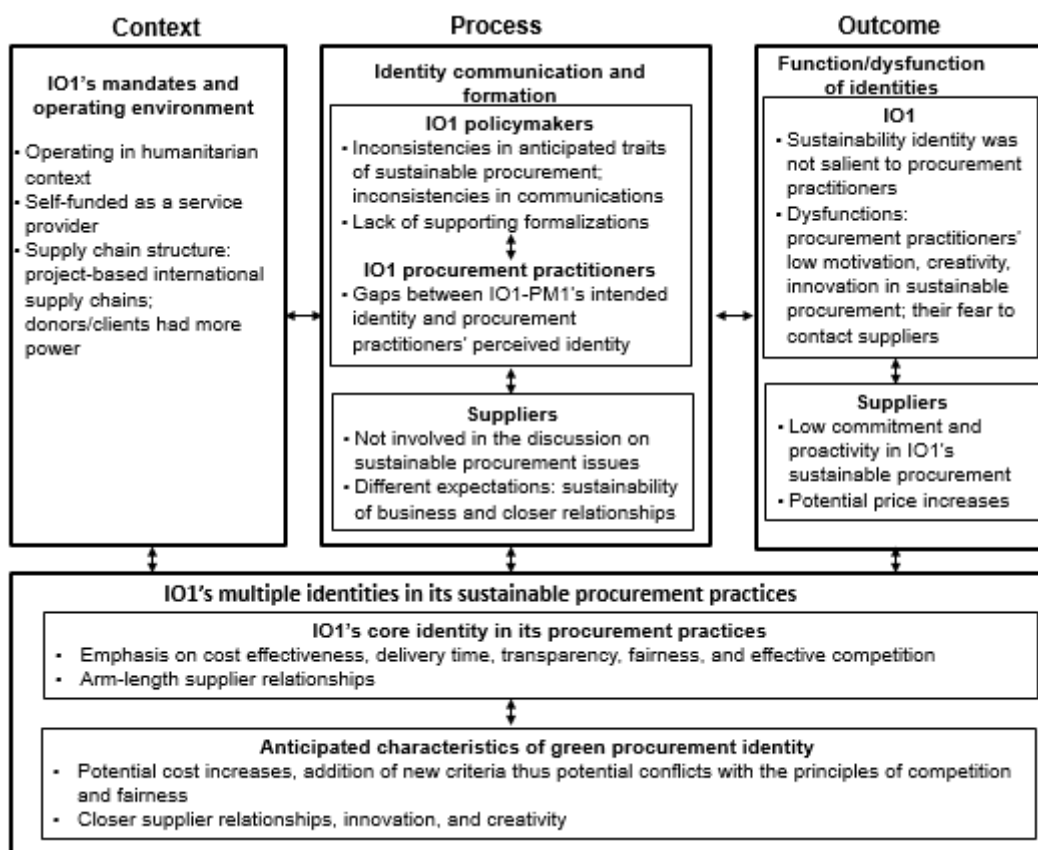


Figure 19 Context, process, and outcome of IO1's identities issues in its sustainable procurement implementation

Construct	Variable	Data from secondary sources	Data from policymakers	Data from procurement practitioners	Data from suppliers
Organisational identity in traditional procurement practices	Important traits (context)	<ul style="list-style-type: none"> Operating in humanitarian context; Self-funded, acting as a service provider 	<ul style="list-style-type: none"> Working in a humanitarian context with limited resources; Self-funded and acted as a service provider; Project-based supply chains 	<ul style="list-style-type: none"> Operating in humanitarian context; Project-based, diverse and dynamic supply chains Procurement requests defined by donors/clients 	<ul style="list-style-type: none"> An international organisation operating on humanitarian issues; a part of the BIO system
	Values, beliefs, and behaviours	<ul style="list-style-type: none"> The procurement principles: best value for money; fairness, integrity, and transparency; effective competition; best interest of IO1 and its partners 	<ul style="list-style-type: none"> Emphasis on humanitarian issues, cost effectiveness, and competition among suppliers; high ethical standards; needs to promote IO1 image 	<ul style="list-style-type: none"> Emphasis on cost-effectiveness, transparency, and competition; strict rules and procedures 	<ul style="list-style-type: none"> Driven by prices or lead time; emphasis on fairness and transparency; strict rules; silo organisational structure
	Organisational identity orientation	<ul style="list-style-type: none"> Donors, clients and other BIO organisations as “partners”; Suppliers as “vendors.” 	<ul style="list-style-type: none"> Heavy dependence on “partners”; “They” and “we” between suppliers and IO1 	<ul style="list-style-type: none"> Arm’s-length supplier relationships. Procurement practitioners felt that they were stopped by IO1 rules in having close supplier relationships 	<ul style="list-style-type: none"> Arm’s-length supplier relationships vs. close relations with “partners”; cold, mechanic process; low creativity and flexibility of procurement practitioners
Sustainable SCM	Formal expression related to sustainable SCM	<ul style="list-style-type: none"> “Sustainable procurement” 	<ul style="list-style-type: none"> “Sustainable procurement” 	<ul style="list-style-type: none"> “Sustainable procurement” “Sustainable” procurement: procurement practices could be sustained for a certain period of time 	<ul style="list-style-type: none"> “Sustainable procurement” “Sustainable” procurement: buyers’ procurement practices and suppliers’ business could be sustained for a certain period of time
	Major projects	<ul style="list-style-type: none"> Focused on internal efforts such as training and tools development; External projects: often policy-oriented (linked with IO1’s advisory services) 	<ul style="list-style-type: none"> Different opinions from procurement policymakers: projects promoting organisational image vs. trying hard to integrate sustainability into the procurement principles thus making sustainability mandatory in IO1 	<ul style="list-style-type: none"> Headquarters: procurement of carbon emission reduction certificates and environmentally-friendly products; Regional and country offices: few sustainable procurement projects 	<ul style="list-style-type: none"> IO1 seldom contacted suppliers for sustainable procurement issues; one out of five suppliers was asked to join the Global Compact

(To be continued)

Construct	Variable	Data from secondary sources	Data from policymakers	Data from procurement practitioners	Data from suppliers
Organisational identity in sustainable SCM	Anticipated important traits	<ul style="list-style-type: none"> Commitment on sustainable procurement; to address various policy objectives related to sustainability through procurement; to promote IO1's expertise on sustainable procurement 	<ul style="list-style-type: none"> Controversies among procurement policymakers: to increase IO1's impacts and image for marketing purposes; higher priorities of humanitarian issues; open communications and cooperation with suppliers without breaking the line; to find solutions suitable for the local context. 	<ul style="list-style-type: none"> Sustainability was often thought expensive To increase IO1's image Importance of supplier assessment Importance of communications and cooperation with suppliers 	<ul style="list-style-type: none"> "Sustainability is expensive" and expectation for sustainability premium; Driver for sustainable procurement: economic factor (i.e. profit) Partnership between suppliers and the buyer The importance of stable procurement orders, in-time payment, and demand forecast.
	Actual important traits	<ul style="list-style-type: none"> Controversies: IO1's ambition to sustainable procurement and its declared expertise in sustainable procurement vs. lack of supporting formalization on sustainable procurement 	<ul style="list-style-type: none"> Controversies among procurement practitioners: A leader in sustainable procurement vs. a loser in BIO and public procurement and early stage of sustainable procurement 	<ul style="list-style-type: none"> Slow pace of sustainable procurement; just took basic steps in sustainable procurement to increase IO1's image; just inherited the traditional practices, only looking at the cost efficiencies of the procured items 	<ul style="list-style-type: none"> No sustainable procurement project with suppliers, even some suppliers had their own sustainable procurement projects IO1 used sustainable procurement to increase IO1's image for attracting clients
	Values, beliefs, and behaviours	<ul style="list-style-type: none"> Lack of formalization supporting sustainable procurement: sustainability not included in the procurement principles; no sustainable procurement strategy; supplier engagement in sustainable procurement was not included in working plan; the low management levels of the sustainability team 	<ul style="list-style-type: none"> No sustainable procurement strategy; failure in including sustainable procurement in the procurement principles thus sustainability was not mandatory in IO1's procurement practices; needs for legal protection in contacting suppliers in sustainable procurement. 	<ul style="list-style-type: none"> Sustainability criteria not included in bidding process unless requested by donors; few sustainable procurement projects in field/ country offices; Just took basic steps in sustainable procurement to increase IO1's image No supplier assessment 	<ul style="list-style-type: none"> IO1 didn't discuss sustainability issues with suppliers or involve suppliers in sustainable procurement
	Organisational identity orientation	<ul style="list-style-type: none"> Partnerships with donors, clients, NGOs, and universities; "vendors" were not in a partnership list 	<ul style="list-style-type: none"> Partnerships with donors, clients, NGOs, universities Little supplier engagement 	<ul style="list-style-type: none"> Little supplier engagement 	<ul style="list-style-type: none"> No discussion on sustainability issues with suppliers

Table 27 Summary of data in the IO1 case

4.4 International Organisation 2 (IO2)

This case examined the green procurement practices and the identity-related issues in the stakeholder relationships during green procurement implementation for International Organisation 2 (hereafter “IO2”) within the BIO system. This case was based on the data collected from IO2’s headquarters and its field/country offices as well as its suppliers based in Asia, Europe, and America.

In comparison to IO1, IO2’s procurement value was smaller, and its supply chain was more stable and less complex. For the majority of its procured products and services, IO2 had long-term agreements with suppliers. For some of the procurement categories, it had great procurement power. Generally speaking, it adopted a partnership approach with its major suppliers. In terms of sustainable procurement, IO2 focused on the environmental aspect of sustainability and used the expression “green procurement” in its publications, documents, website, and daily expression. It started its green procurement practices in mid-2013 and defined a five-year (2013-2018) green procurement strategy. By November 2014, IO2 had engaged one of its five supplier categories in its green procurement practices and included environmental criteria into the tendering documents/contracts to these suppliers, which accounted for more than 30% of its total procurement value.

4.4.1 Data from documents and publications

The organisation and its supply chains

With its headquarters in the USA and its central procurement function in Denmark, IO2 was an organisation within the BIO system. IO2 played a unique role within the BIO system. Its key mandate was about the population and development issues, with an emphasis on reproductive health and gender equality. It supported programs in more than 150 countries, territories and areas spread across four geographic regions: Arab States & Europe, Asia & the Pacific, Latin America & the Caribbean, and Saharan Africa. Unlike IO1 (a

self-funded service provider), IO2's projects had stable funding resources. Hence, IO2 didn't have strong needs to create an organisational image of "service provider" to its clients/donors as compared to IO1. IO2 adopted the partnership approach with many of its stakeholders, including governments, other BIO agencies, communities, NGOs, foundations, academic institutions, and its major suppliers.

IO2 procured contraceptives and related commodities for the developing world. It was the largest public sector procurer for these items. IO2 procured from suppliers all over the world in about 50 countries, with approximately one-third of its contracts awarded to developing countries. There were three types of procurement in IO2: the headquarters procurement conducted by IO2's central procurement department in Copenhagen, the local procurement conducted by country/regional offices, and Third Party Procurement (procurement on behalf of external entities such as other BIO Organisations, governments, and NGOs). The central procurement department in Copenhagen was also responsible for the Third Party Procurement. In 2013, about 63% of IO2's total procurement value was carried out by the headquarters. In comparison to the procurement conducted by the headquarters, the procurement conducted by the regional/country offices were diverse in procurement categories. The procurement value for a certain procurement category was also relatively smaller than those of headquarter procurement.

In comparison to IO1's supply chains, IO2's supply chain was more stable, with fewer procurement categories, more predictable demand, and greater procurement power. Its top 20 suppliers account for more than 50% of its total procurement value. Appendix E lists the top 10 procurement categories for IO2, based on procurement value. As indicated in Appendix E, 2.5% of IO2's procurement orders occupied nearly 50% of its procurement value. This implied that IO2 had limited procurement categories and great procurement

power for certain categories.

Appendix F.2 demonstrates IO2's organisational structure, which reflects some important traits of IO2 that were different from IO1's. First, unlike IO1 being self-funded and acting as a service provider, IO2 was not self-funded. Therefore, although IO2 emphasised the importance of high ethical standards in its procurement practices, it didn't have to use high ethical standards to promote its organisational image in order to both attract and satisfy funders/donors. Therefore, unlike IO1, IO2 didn't have an Audit and Investigation Group and an Ethics office. Meanwhile, IO1's needs and investments for the organisational image were also reflected in its functions of Communication Practice Group and Corporate Performance and Management Group. In comparison to IO1, IO2 didn't have these two functions related to organisational images. Second, IO2's partnership approach with its supply chain stakeholders was reflected in its function "External Relations." Furthermore, in comparison to IO1, its unique Strategic Planning Office provided a more predictable procurement plan to suppliers and laid a good basis for more stable supplier relationships. Third, by having a Humanitarian Response Unit, IO2 divided its procurement demand into two parts: regular procurement and emergency procurement (e.g. the reproductive and maternal health needs in political conflicts and natural disasters). The demand for IO2's emergency procurement was often satisfied by IO2's buffer stock or inter-agency procurement within the BIO system. Therefore, IO2's regular procurement was not time-demanding because no humanitarian (emergent) demand was included in IO2 regular procurement. This case focused on IO2's regular procurement only.

Data from IO2's documents, publications, and website revealed several important characteristics of IO2. First, focusing on population issues and having a Humanitarian Response Unit, IO2's regular operations were not in a humanitarian/peace-building context. Therefore, its procurement was not time-pressed. Second, IO2 received regular and stable funding from governments, NGOs, and the World Bank. Although it also provided procurement services to its Third Party Procurement clients, Third Party Procurement only occupied a small portion of IO2's total procurement value. Therefore, IO2 didn't have the pressure

to promote its organisational image and to market its services. In line with IO2's contextual characteristics, IO2's supply chain structure had the following important characteristics: 1) comparably stable supply chain with limited procurement categories and predictable procurement demand. 2) For some categories (for example, contraceptives), IO2 had great procurement power. IO2's contextual characteristics had great impacts on its approaches to doing business and dealing with its suppliers. Therefore, the following paragraphs introduce the important traits of IO2's procurement practice.

IO2's procurement practices

Viewing itself as an organisation in the public sector and within the BIO system, IO2 defined its procurement principles based on the concept of stewardship. Being the stewards of public funds, IO2 emphasised the following factors in its procurement practices: ethical values, cost effectiveness, transparency, and accountability. Therefore, IO2 defined the following procurement principles in its Policy and Procedures for Regular Procurement 1) best value for money, considering all relevant factors, including costs and benefits to IO2; 2) fairness, integrity, and transparency; c) open and effective international competition; and 4) the interests of IO2. IO2's procurement principles were similar to those of IO1 and IO3, with two slight but interesting differences. First, within the principle "best value for money", IO2 added consideration of all relevant factors, including costs and benefits to IO2. By doing so, IO2 provided room for the total cost and sustainable procurement consideration. Details of this principle and its implication for IO2's green procurement will be discussed in the later parts regarding IO2's green procurement practices. Second, IO1 mentioned the interest of IO1 and its partners in its procurement principles while IO2 only mentioned the interest of IO2. This difference indicated that in comparison to IO1, IO2 had less dependence on its donors/funders/clients.

Notably, unlike IO1 generally keeping arm's-length relationships with suppliers, IO2 highlighted the importance of supplier partnerships. In comparison to IO1, IO2 generally had closer relationships with its suppliers because of the following reasons. First, in comparison to IO1's project-based supply chains, IO2's supply chains were more stable, with major procurement categories in the health product

industries. IO2 published its annual procurement plans on its website so that all the existing and potential suppliers had access to these data. As indicated in these procurement plans, IO2's demand for certain procurement categories was comparably stable and predictable. Second, the major parts of IO2's procurement were health products. According to the regulation of the BIO system, all the suppliers for health products had to get the pre-qualification from World Health Organisation before they were eligible to supply BIO organisations. The pre-qualification process lasted at least 2 years, which required considerable communication and cooperation between IO2 and its health products suppliers.

IO2's green procurement

IO2 emphasised environmental aspects of sustainability and often used the term "green procurement" in its publications, documents, and website. At times, it also used the phrases "environmentally sustainable" or "sustainable environment". IO2 started its green procurement initiatives with selected suppliers in June 2013 and published its Green Procurement Strategy in November 2013 on its website. In this document, IO2 defined its environmental goal as implementing green procurement gradually. It aimed to achieve its green procurement goal by initiating a dialogue with its suppliers and setting requirements to which the suppliers must adhere. IO2 decided to focus on the seven areas related to environmental sustainability: controlling energy consumption; minimizing the general water footprint; waste management; recycling; environmentally preferable materials; transportation, and chemical substitution.

In line with its traditional partnership approach in its procurement practices, IO2 adopted collaborative approaches to engaging its supply chain stakeholders in green procurement. The stakeholders involved in IO2's green procurement practices included other BIO organisations, governments, donors, suppliers, end users, and IO2 employees. Among these stakeholders, IO2 emphasised the importance of its suppliers. It regarded positive interaction and collaboration with suppliers as key success factors and adopted a gradual and inclusive approach in engaging its suppliers. In terms of supplier engagement in green procurement, IO2 defined strategies for different suppliers based on thorough supplier segmentation analysis. The key parameters for IO2's supplier

segmentation analysis included segmentation into industries, the levels of IO2's purchasing power, and countries in which suppliers conducted business. Based on its segmentation analysis, IO2 classified its suppliers into five categories (A, B, C, D, and E)⁵. IO2 decided to start its green procurement practices with the Category B suppliers. These suppliers had great environmental impacts as well as the considerable potential for improvement. IO2 also developed a supplier collaboration model in its Strategy. This model defined concrete steps for IO2 to engage its suppliers within five years: 1) capacity building for suppliers; 2) supplier's gradual compliance to IO2's green procurement requirement; 3) IO2's audit on suppliers' environmental performance.

IO2 established necessary formalization (principles, procedures, and contracts) to encourage green procurement and supplier engagement in this process. First, IO2 published its Green Procurement Strategy (2014-2018) at the end of 2013. Notably, in comparison to IO2, neither IO1 nor IO3 had defined such strategies and action plans. IO2 was the only one among the three case organisations that stated explicitly its green procurement principles in its Green Procurement Strategy and integrated them in its Policy and Procedures for Regular Procurement. The key points of IO2's green procurement principles include: 1) IO2's preference to procure environmentally preferable products under the condition of the similar total cost; 2) IO2's collaborative approach with its suppliers in green procurement; 3) IO2's requirement on suppliers to comply with both current and future international and local legislation regarding environmental issues. The green procurement principles did not conflict with IO2's four existing principles in its procurement practices. In accordance with its green procurement principles, IO2 integrated sustainability into its Policy and Procedures for Regular Procurement. As mentioned previously, IO2 introduced the concept of total cost and green procurement consideration into its procurement principle "best value for money." Regarding detailed meaning on this principle, IO2 indicated in its Policy and Procedures for Regular Procurement. By doing so, IO2 integrated the sustainability consideration in its

⁵ IO2's procurement categories were very unique. If these categories are listed in full names, IO2 will be easily recognized by the readers. Therefore, the IO2's procurement categories are named by alphabet letters in this thesis.

procurement and avoided people's general perception of linking best value for money together with choosing the lowest initial price.

The second important formalization that IO2 established to support its green procurement implementation was the inclusion of environmental requirements in its tendering processes. IO2 started this practice with suppliers in the category B in 2014 and allocated some weighting points for these environmental criteria during its contract awarding process. This was a significant milestone for IO2's green procurement implementation because of the following reasons. First, according to IO2's supplier-segmentation analysis in its Green Procurement Strategy, suppliers in Category B had great environmental impacts and promising improvement potential. Successful stories for Category B suppliers would set good examples for the suppliers in the other categories. Second, suppliers in Category B accounted for 30% of IO2's total procurement value. Therefore, involving Category B suppliers in IO2's green procurement meant a considerable part of IO2's procurement was going green. More importantly, including environmental criteria into the tendering processes and contracts was a strong message that IO2 took environmental criteria as mandatory requirements for suppliers. In comparison to IO2, neither IO1 nor IO3 included environmental criteria as mandatory requirements in their contract awarding unless they were requested by their donors/clients to do so.

Third, IO2 integrated green procurement into its quality assurance system. There was a quality assurance committee within the IO2 central procurement department. Green procurement implementation was a key responsibility of the quality assurance committee. The committee was headed by the deputy procurement director. The involvement of senior procurement staff indicated the importance of green procurement in IO2. IO2 integrated green procurement into different stages of its quality assurance: 1) IO2 required its suppliers to provide their environmental information (especially their environmental policy) in both the

supplier prequalification and tendering processes; 2) in the review of suppliers for the pre-qualification process, IO2 procurement practitioners/auditors must obtain information on the supplier's environmental issues as part of the site audit process; 3) IO2 launched Guidelines for Safe Disposal of Unwanted and Used Contraceptives and integrated these guidelines into their quality requirements to the suppliers. IO2 developed these guidelines in collaboration with World Health Organisation, environmental experts, and suppliers in Category B. Involving suppliers in the guideline-drafting process enhanced the communications between IO2 and its Category B suppliers during IO2's green procurement implementation and enhanced suppliers' sense of belonging.

4.4.2 Data from policymakers

The organisation and its supply chains

According to the IO2 procurement policymakers, IO2 was an international organisation belonging to the BIO system. IO2's main mandates were about population issues and family plans around the world. Although IO2 had some emergent procurement demand under humanitarian context, this part of the demand was met by IO2's stock of essential reproductive health kits, which were ready to ship. Therefore, IO2 didn't have the time pressure in their operations like IO1 and IO3 did.

IO2 were regularly funded by governments, NGOs, and World Bank. However, according to IO2 procurement policymakers, IO2 was not big in size compared to IO1 and IO3. Thus, IO2 was "limited in resources...our procurement value was doubled in the past three years. But the number of our staff remained nearly the same" (IO3-PM1). With limited resources and being public funded, IO2 emphasise cost efficiency and high ethical standards in its operations.

IO2's supply base was comparably stable as compared with IO1 and IO3, with limited procurement categories and long-term agreements with its main suppliers. Its major procured products were health products. For some procurement categories, IO2 was the biggest buyer in the world and had enormous

procurement power. For some other products, there were only a couple of optional suppliers in the world. Therefore, IO2 and these suppliers depended on each other heavily. One of the important traits in IO2's supply chains was the diverse country contexts that IO2 faced. In detail, IO2 had 112 country officers, operating in 112 countries with different country contexts. The products and services procured by country offices accounted for 35% of IO2's total procurement value. In comparison to the products and services procured by the headquarters, the products and services procured by country offices were diverse in procurement categories and smaller in procurement demand. The procurement decision for these products and services were influenced heavily by country contexts. IO2's organisational and supply chain characteristics had great impacts on IO2's practices in its traditional and green procurement. The following paragraphs now present the findings related to IO2's procurement practices.

IO2's procurement practices

IO2's procurement was guided by the following four procurement principles: 1) best value for money; 2) fairness, integrity, and transparency; 3) open and effective competition, and 4) the interest of IO2. Regarding the first principle, IO2 policy makers pointed out that "best value for money" didn't mean "the lowest price" (IO2-PM1). IO2 considered about the total cost of ownership in its procurement decisions. Regarding the second principle related to procurement ethics, IO2 adopted a zero-tolerance policy on gifts and hospitality and explained it thoroughly to the suppliers. To ensure open and effective competition, IO2 published online the following procurement information: 1) the procurement plan for IO2's major procurement categories; 2) the contraceptive price indicator; and 3) the supplier list. For each of the procurement principles, IO2 procurement policymakers established examples of how procurement practitioners could integrate the principles in their procurement practices. IO2 also provided relevant on-line and off-line training, as well as on-line tools.

Interestingly, although IO2 highlighted high ethical standards like IO1 and IO3 did, it generally had closer supplier relationships in comparison to IO1 and IO3. IO2 worked closely with its suppliers because of its supplier selection procedures and supply base structure. First, the major procurement categories for IO2 were

health products. In the BIO system, if a health product supplier wanted to gain contracts from BIO organisations, it needed to go through the prequalification scheme and get the quality accreditation from World Health Organisation. The prequalification process took two years at least. For many procurement categories, IO2 had limited options of suppliers. These suppliers were often big companies with great power. Meanwhile, these suppliers also depended on IO2 because of IO2's high procurement value. The mutual dependence between IO2 and its major suppliers led to IO2's partnership approach to these suppliers. In addition, IO2 had a comparably stable supplier base and a limited number of suppliers (especially for headquarters procurement) in comparison to IO1 and IO3. Therefore, IO2 procurement practitioners had time and energy to maintain close relationships with the suppliers.

IO2 maintained close but professional relationships with its suppliers without breaking the procurement principles of fairness, integrity, and transparency: "the close collaboration is really professional" (IO2-PM1). IO2 maintained this "professional collaboration" (IO2-PM1) through the following approaches. First, IO2 had very strict policies on anti-corruption. Second, IO2 communicated their anti-corruption policies explicitly to their suppliers by various means and let suppliers feel that "they have to understand it" (IO2-PM2). For example, IO2 procurement director explained IO2's "NO gifts" policies to the suppliers in IO2's supplier conference. Third, IO2 treated its existing suppliers equally by "trying to purchase more or less from them, of course, according to the locations and the products availabilities" (IO2-PM2). For the potential suppliers, IO2 was "interested in helping them being qualified, be applicable to IO2 contracts" (IO2-PM1).

According to the IO2 procurement policymakers, the procurement practitioners in the headquarters were normally experienced in supplier relationship management. However, among those procurement practitioners in country officers, there were still concerns about the risks of corruption. By noticing some procurement practitioners' fear to contact the suppliers, IO2 procurement policymakers made the following efforts to encourage liaison with suppliers. On one hand, they facilitated supplier liaison by regular supplier workshops, annual supplier conferences (starting from 2013), newsletters, and on-line communications. They demonstrated to the procurement practitioners the right

way of communicating with the suppliers, i.e., declaring the same information to all the suppliers in a certain category. On the other hand, they introduced the right approaches for suppliers to make contact with IO2 procurement practitioners. They explained IO2's procurement procedures and anti-corruption regulations to the suppliers explicitly. These efforts focused on the suppliers of headquarters procurement. At the time the interviews were finished (November 2014), there had been limited results from IO2's efforts on capacity building of procurement practitioners in country offices. The major reasons were "limited resources and complexity in country contexts" (IO2-PM1).

Green procurement

Although the IO2 procurement policymakers knew about the triple bottom lines of sustainability, they decided to focus on the environmental aspect of sustainability and use the term "green procurement" instead of sustainable procurement in IO2's documents and daily communications. Their decision of focused on environment aspects of sustainability was influenced by several factors. The first factor was IO2's organisational size and available resources: "we are not a big organisation in comparison to IO1 and IO3. We don't have that many resources. It would be feasible for us just to focus on one of the pillars and try to make as much progress as possible for that one" (IO2-PM1). The second factor was the slower progress of environmental aspects in comparison to social and economic aspects of sustainability: "the environmental part is a little bit behind. In BIO, you are already considering social and economic aspects. Because we are trying to develop the developing countries, we are helping them" (IO2-PM2).

IO2 procurement policymakers anticipated several important characteristics of its sustainable procurement. First, as mentioned in the above paragraph, IO2 focused on environmental aspects of sustainability. Second, suppliers and manufacturers were the most important stakeholders in IO2's green procurement. IO2's intention was "to work with our suppliers on different initiatives to reduce their waste, their environmental footprints" (IO2-PM1). Third, IO2 procurement policymakers intended to adopt an "inclusive and gradual" (IO2-PM1) approach to work with its suppliers on "realistic targets" (IO2-PM1). Lastly, IO2 procurement policymakers realized that suppliers expected economic returns from IO2's green

procurement initiatives: “suppliers are businessmen, they want money. If we can translate green procurement practices into successful business cases, they will have the motivation” (IO2-PM1).

Based on their understandings of IO2’s supply market, IO2 procurement policymakers decided to take an “inclusive and gradual approach” (IO2-PM1) to its green procurement implementation. Since more than one-thirds of IO2 suppliers came from the developing countries, IO2 procurement policymakers thought that many existing suppliers might not be able to comply with IO2’s environmental requirement immediately: “if we ask our suppliers to comply right now, we will lose 50% of our suppliers” (IO2-PM1). Therefore, IO2 structured their green procurement implementation in three steps within 5 years. Table 28 summarises these steps. These steps were in line with the collaboration model mentioned in 4.4.1.

Stage	Period	IO2’s action on suppliers
1	Year 1-2	<ul style="list-style-type: none"> · To raise the awareness of the suppliers · To indicate IO2’s direction on green procurement · To help some suppliers with potentials to implement some environmental actions
2	Year 3-4	<ul style="list-style-type: none"> · Ask the suppliers to comply the code of conduct. · Provide help and assistance to suppliers for their improvement
3	Year 5	<ul style="list-style-type: none"> · Suppliers to comply IO2’s environmental requirement on a compulsory basis

Table 28 IO2’s gradual approach to engaging suppliers in its green procurement (Summarised from interview data of IO2 procurement policymakers)

IO2’s gradual approach was also reflected in IO2 procurement policymakers’ decisions on which supplier category to start with. IO2 policy makers chose suppliers in Category B based on their thorough supplier segmentation analysis. There were several reasons for this choice. First, with a limited number of suppliers, category B suppliers occupied more than 30% of IO2’s total procurement value. Second, according to the segmentation analysis, Category B suppliers had “the greatest environmental impacts and the highest potential for improvement” (IO2-PM1). Third, being one of the largest global buyers of products manufactured by Category B suppliers, IO2 had great power to influence these suppliers in its green procurement implementation. Lastly, IO2 headquarters were in charge of procurement for Category B. These suppliers were mainly based in Asian countries that had similar country contexts. As mentioned before, procurement taken by IO2 country offices was often subject to

the country contexts and the capacity of the procurement practitioners in country offices. Starting with suppliers in Category B could ensure that green procurement initiatives were conducted by the procurement practitioners with more green procurement know-how in comparison to the procurement practitioners in country offices. Meanwhile, the similar country contexts enabled the suppliers to compete with fairness. In summary, starting IO2's green procurement initiatives with Category B suppliers would "generate promising achievement with affordable investment" (IO2-PM1). Therefore, IO2 procurement policymakers decided to set up some best practice cases for suppliers in Category B and gradually expand the green procurement practices to the other supplier categories.

In accordance with IO2's gradual approach and the relevant action plan, IO2 took the following actions on green procurement. First, IO2 started to collect environmental data from Category B suppliers in Mid-2013. At the end of 2013, IO2 procurement policymakers developed the Green Procurement Strategy for 2014-2017. They categorized IO2's suppliers into five categories according to the following parameters: industries, the levels of IO2's purchasing power, and countries in which suppliers conducted business. Different strategies had been defined for different categories. All the strategies and action plans were based on a thorough analysis of IO2's supply chain status and SWOT (strength, weakness, opportunity and threats) analysis on IO2. Besides the Green Procurement Strategy, IO2 also integrated green procurement into its quality assurance system and published a guideline for responsible disposal of contraceptives. IO2 consulted suppliers while drafting this guideline, so as to make suppliers realize that they are well involved in IO2's green procurement decision and implementation. In 2014, IO2 started to include environmental criteria as formal requirements in its tendering documents and contracts to Category B suppliers. The inclusion of environmental requirement as compulsory criteria in its tendering documents and contracts sent clear and convincing messages to both the procurement practitioners and suppliers that IO2 was "serious with green procurement" (IO2-PM1).

Besides setting up the above necessary formalization for green procurement, IO2 procurement policymakers also recognized the importance of face-to-face communications with suppliers. In September 2013, IO2 held a supplier conference for the health products suppliers. The purpose of this conference was to help suppliers know more about IO2. In September 2014, another supplier conference was held, adding green procurement into the conference agenda. Furthermore, a supplier workshop for category B was held, focusing on IO2's quality assurance system and green procurement. IO2 also planned future regional (e.g. Asian) supplier workshops on quality assurance and green procurement, so as to facilitate the inter-organisational learning among selected suppliers.

Internally, the procurement policymakers found that one of the vulnerable areas of green procurement was the poor environmental awareness of the procurement practitioners in country offices. So, they made efforts in awareness and capacity building among the procurement practitioners in country offices by 1) publishing the green procurement on its website and communicating IO2's environmental goals by various means; 2) providing green procurement training to procurement practitioners; 3) including environmental requirements in the tendering processes for Category B suppliers; and 4) launching Guidelines on Safe Disposal of Unwanted and Used Contraceptives. Section 4.4.3 now presents data from IO2 procurement practitioners.

4.4.3 Data from procurement practitioners

The organisation and its supply chains

The procurement practitioners being interviewed regarded IO2 as an international organisation within the BIO system. They thought their work was about "helping the women and children in the developing countries" (IO2-PP4) and were generally proud of that. IO2's supply chains could be divided into two parts: headquarters procurement and procurement conducted by 112 country offices. There were limited categories in IO2's headquarters procurement. IO2 had great procurement power for these categories. In comparison. IO2's country offices procured diverse products and services, which were subject to different country

contexts. The procurement practitioners in country offices often worked under a heavy workload. For example: “I have to work until 8 pm nearly every day ” (IO2-PP5).

IO2's procurement practices

The IO2 procurement practitioners repeatedly mentioned the following four BIO general procurement principles (refer to Section 4.2.1 and Section 4.4.1) when they talked about IO2's procurement practices. However, IO2 also had some unique characteristics in its procurement practices. In comparison to IO1 and IO3, the IO2 procurement practitioners, especially those in headquarters, kept closer relations with their suppliers. The procurement practitioners in IO2 headquarters kept frequent contacts with these suppliers at different stages of the buyer-supplier relationships, from the prequalification process to the procurement orders execution. The contacting approaches included regular e-mail communications, regular telephone conferences, news and guidelines in the BIO on-line procurement system , on-site supplier inspections, one-to-one discussion with the suppliers, regional supplier workshops, and annual procurement supplier conferences (only for health products suppliers by the time of the interviews). In comparison to the procurement practitioners in IO1, the IO2 procurement practitioners were not afraid to contact their suppliers. They wanted to “grow with the suppliers and adopt a supportive theme in buyer-supplier relations” (IO2-PP7). They provided explanations and guidance to the suppliers if the suppliers had any questions during the prequalification, bidding and order execution processes.

Generally speaking, the IO2 procurement practitioners, especially those in the headquarters, were well-trained in supplier relationship management. They were competent to keep high ethical standards and engage in sufficient information sharing with their suppliers simultaneously. They explained IO2's ethical standards and procurement procedures to the suppliers at the beginning of the relationships. After the relationships had been established, they kept identical meeting agendas for all the suppliers in a certain procurement category to ensure fairness to suppliers. To ensure transparency, all the discussions with the suppliers were well documented.

In comparison to the procurement practitioners in IO1, the IO2 procurement practitioners normally had higher identification with their organisation and the procurement team. The procurement team was comparably stable as compared with that in IO1. Most of the procurement practitioners interviewed liked IO2's organisational culture and "enjoy working with the team" (IO2-PP1). For the procurement practitioners in charge of key suppliers, they also identified with IO2's partnership approach to suppliers. However, there were different teams within IO2 procurement. These teams had their "own team cultures" (IO2-PP4), which led to different working styles and attitudes towards green procurement. The following paragraphs discuss data related to IO2's green procurement implementation.

IO2's green procurement

All of the procurement practitioners interviewed were aware of the publication of IO2 Green Procurement Strategy and IO2's goals to green procurement. They also provided a similar theoretical definition for green procurement/sustainable procurement. However, different procurement practitioners expressed different views regarding their personal understandings about sustainable procurement. Some procurement practitioners took a narrow definition of sustainable procurement. These procurement practitioners focused on the environmental aspect of sustainability and used the term green procurement. Some other procurement practitioners took a broader view of sustainable procurement, claiming the basis for sustainable procurement was to keep the business sustainable, i.e., to keep the business running for a long term. For example: "sustainable procurement first means the sustainability of procurement practices" (IO2-PP2). Notably, in the broader definition of sustainable procurement, procurement practitioners highlighted the importance of change management and the personal contacts among stakeholders.

Regarding their understandings of the actual green procurement implementation, different procurement practitioners with different responsibilities also had different opinions. Interview data revealed obvious differences between the procurement practitioners in charge of Category B suppliers and those in charge of the other categories. The procurement practitioners in charge of Category B suppliers

adopted the broad definition of sustainable procurement. In comparison to the IO1 procurement practitioners, the IO2 procurement practitioners in charge of Category B suppliers showed a proactive approach to engaging suppliers in IO2's green procurement practices. They emphasised the importance of relationship management in green procurement practices: "stakeholder relations are the most important part of sustainable procurement" (IO2-PP4).

Some procurement practitioners identified strongly with IO2's green procurement implementation. For example, "I am very proud to work in IO2 because we are helping the world. Going green is a way to help the suppliers, and finally, help the women and the kids in the developing countries" (IO2-PP7). Therefore, these procurement practitioners were proactive in contacting suppliers for green procurement issues. In Mid-2013, they started to ask the Category B suppliers to declare their environmental information to IO2. IO2's inquiry on suppliers' environmental information raised suppliers' awareness about environmental issues and provided the direction that IO2 was going for. At the end of 2013, the publication and distribution of the Green Procurement Strategy provided suppliers with a total picture about IO2's strategies and action plan to the suppliers. Starting from 2014, the inclusion of environmental criteria in the tendering processes for Category B sent explicit messages to the suppliers in this category that environmental criteria were becoming a compulsory requirement in IO2's procurement.

IO2 procurement policymakers decided to engage suppliers in Category B in its green procurement at the initial stage. However, some procurement practitioners thought due to the mutual dependence between IO2 and its health products suppliers, there was some potential to extend these green initiatives to some suppliers in other categories. They suggested that IO2 should take a more proactive way in leading the green initiatives. "I think we can do even more than conducting inspections on suppliers and sending external experts to help suppliers in going through the prequalification process. But if we set some standards, they will announce them for their own promotion" (IO2-PP1).

Despite their positive attitudes to green procurement, these procurement practitioners expressed their concerns about some factors that would hinder

green procurement implementation. First, despite their willingness for green procurement, suppliers in Category B had limited know-how on green procurement: “of course, they are willing to comply, but they don’t know how to comply” (IO2-PP2). Hence, there were needs for capacity building for suppliers. Second, different teams within IO2 procurement had different team cultures. Consequently, they had different attitudes toward green procurement.

In contrast to the proactive approach of some procurement practitioners, others procurement practitioners expressed concerns and low identification about green procurement implementation. They had heard about the publication of IO2 Green Procurement Strategy 2014-2018. However, they claimed that they hadn’t been involved in any green procurement projects. In addition, the procurement practitioners in country offices claimed that green procurement practices would bring additional workload to them if they needed to implement green procurement practices. In detail, these procurement practitioners were mainly responsible for two types of tasks: 1) order processing and goods receipt for the products procured by headquarters; 2) procurement for the country officers, covering diverse and small amount products and services. They argued that environmental requirements for products procurement by headquarters for country offices would bring challenges for them in goods inspection during goods receipt stage. Since the products and services procured by country offices were diverse and project-based, green procurement implementation at country offices level would increase procurement practitioner’s workload in finding the proper environmental standards for each procurement category. Most importantly, the existing suppliers might not have the awareness and capability to meet the environmental requirements given that most of them locate in developing countries.

4.4.4 Data from suppliers

IO2 and its procurement practices

The suppliers being interviewed were recommended by IO2, and the majority (7 out of 9) of these suppliers fell into supplier Category B. The other two suppliers were in health products industries. All of these suppliers had long-term agreements with IO2. According to these suppliers, IO2, as an international

organisation and a part of BIO, emphasised transparency, equality, and competition in its procurement practices. About IO2's procurement principle on best value for money, different suppliers expressed different views. The majority of suppliers claimed that IO2 was very "sensitive" to prices (IO2-S07). However, one supplier reported that IO2 accepted this supplier's price increase request when it fell into financial difficulties. Notably, many customers of this supplier didn't accept the price increase at that time. This example implied that as well as being interested in its own cost-effectiveness, IO2 was also interested in enabling the supplier to succeed.

All the suppliers thought that in comparison to other BIO organisations, IO2 kept closer relationships with them. All the suppliers indicated the high levels of trust and commitment in the buyer-supplier relationships. They all expected to continue supplying IO2 after the expiration of their long-term agreements. There were several motivations for suppliers to keep business with IO2. The biggest motivation for suppliers was IO2's great buying power (suppliers in Category B) or buying potential (for pharmaceutical suppliers). Following that was the organisational prestige of IO2 as a BIO organisation. Since the BIO system was well-known on the international political stage and was helping beneficiaries in developing countries, supplying to a BIO organisation was beneficial for suppliers' organisational image, especially for those suppliers in the developing countries: "we are proud to supply IO2" (IO2-S02). In addition, for the suppliers in developing countries, the World Health Organisation prequalification process also offered these suppliers great opportunities to make improvements in their operations and reach internationally recognized quality standards. IO2's supportive approach was also an important motivation for suppliers to keep a close relationship with IO2. In the example that IO2 supported its supplier by accepting price increases during the supplier's financial crisis, "we treat IO2 as our important business partner and would like to provide any support that they need" (IO2-S03). Lastly, in comparison to IO1's arm's-length relationships with the suppliers, IO2's inter-personal contacts with its suppliers also encouraged suppliers to share information with it. For example, "as you know, we are located in a country full of hierarchies. The IO2 procurement officers are very kind, supportive and patient during our telephone communications and face-to-face

discussions. So our fear of contacting them has been released” (IO2-S01).

IO2’s green procurement

At the time of the interviews, IO2 had only started its green procurement initiatives with its suppliers in Category B. The other two suppliers were well-known multinational companies with good sustainability awareness. Therefore, all the suppliers that were interviewed demonstrated sufficient understandings of sustainable procurement and/or green procurement. However, suppliers also had some other views on sustainable procurement which the IO2 procurement policymakers and procurement practitioners might have ignored.

Elements	Function
Reasonable pricing system/ policy	Ensuring access to the target population. For example, a tiered pricing policy that ensures that commodities destined for low-income communities/countries/markets were priced in a way that took into consideration the income levels of those markets
Effective forecasting system	Enabling long-term or forward planning for the markets/countries, for the procurement agencies and ultimately for the manufacturing sector
Explicit communication system	Ensuring clarity with regard to long-term funding for the commodities Ensuring clarity with regard to the procurement agencies assigned to undertake the procurement
Clear procurement mechanism (e.g. clear long-term agreements)	Enabling immediate response to orders as they are received.
Effective supply chain system	Tracking, monitoring, and reporting on the utilization of the commodities on a regular basis thus strengthening the forecasting and planning.
“Green” procurement system	Integrating environmental sustainability efforts in procurement circle

Table 29 Suppliers’ views on key elements for sustainable procurement

First, all the suppliers mentioned that the precondition for “sustainable procurement” was the sustainability of the business, i.e., keeping the business running in a long term. For example, “sustainable procurement is first the sustainability of the business. It has to be good customer relationship, keeping our ability to supply product and keep the business commercial enviable” (IO2-S07). Suppliers viewed sustainable procurement as “the existence of a procurement system that has the capability of continuity in the long-run. It is a system that encompasses all the key procurement processes and ensures that these processes are clearly linked in a way that ensures uninterrupted supply of commodities or no stock-outs” (IO2-S08). Second, in comparison to IO2’s focus on environmental sustainability, suppliers had a broad view of sustainable procurement. They argued that regular procurement practices were the basis for

sustainable procurement. They defined several key elements for sustainable procurement (Table 29).

Regarding IO2's green procurement implementation, there were two groups of opinions: suppliers in Category B and suppliers in the other categories. For the suppliers in Category B, they were well aware of IO2's intention for green procurement. In 2013, when IO2 started requesting environmental information during its tendering processes, these suppliers started to realize IO2's intention of green procurement. Although at that moment IO2 just regarded these environmental criteria as referent factors in the tendering processes, suppliers thought "all the parameters that IO2 requires in the tendering documents are compulsory" (IO2-S01). In 2014, IO2's formal inclusion of environmental criteria in the tendering process convinced suppliers that IO2's was committed to green procurement. Therefore, the suppliers in Category B showed considerable readiness to be compliant with IO2's green procurement requirement. Furthermore, in comparison to IO2's conservative approach to green procurement, the suppliers in Category B showed readiness to push green procurement practices further. At the time of the interviews, according to the action plan in IO2's green procurement, IO2 should be still at the first stage of its supplier collaboration model (refer to Section 4.4.1), namely collaboration and capacity building. In reality, since suppliers were different in terms of country contexts and know-how/capacities related to environmental issues, different suppliers might be at different steps in this model. For example, fifty percent of the category B suppliers had already achieved IO2's environmental requirements and thus reached the second stage in the supplier collaboration model, namely compliance with the requirement. All the Category B suppliers interviewed reported that they made relevant investments in responding to IO2's green procurement initiatives (for example, establishing green SCM team, improving the existing energy system and water treatment system, and seeking environmentally preferable packaging materials and chemical substitution).

According to the interviews with the IO2 suppliers, some suppliers actively collaborated with their supply chain stakeholders in green supply chain initiatives. For example, Chinese suppliers in Category B started inter-

organisational learning on environmental issues among their suppliers: “knowing about IO2’s clear direction for green procurement, we would like to share knowledge and best practices among us as far as there is not sensitive commercial information involved, for example, prices. Because this kind of cooperation is mutually beneficial” (IO1-S01). However, IO2 were not actively involved in these projects or was not aware of the existence of these projects.

The suppliers in the Categories A, C, D and E reported that at the time of the interviews, IO2 hadn’t discussed any green procurement issue with them. However, they were very keen to know about IO2’s decision about green procurement issues. They claimed that they “are awaiting IO2 to discuss sustainability issues with us” (IO2-S07, IO2-S08). Notably, these suppliers thought their products were related to sustainable procurement and showed the intention to increase their sales volume to IO2. In comparison to the suppliers in Category B, these suppliers had ambivalent identification with IO2’s green procurement projects. In other words, they identified with IO2’s green procurement on one hand but disidentified it on the other hand. The major reason was that IO2 and these suppliers had different views about what sustainable procurement meant. In detail, IO2 only focused on environmental aspects of sustainability, i.e. green procurement. Meanwhile, since IO2 was in the public sector, it emphasised economic effectiveness and was very price sensitive in its procurement practice. As demonstrated in Table 29 (in the part about suppliers’ understandings of sustainable procurement), these suppliers mentioned six key elements for sustainable procurement, but IO2 only focuses on one of them, i.e. “green procurement system.” Hence, these suppliers were very concerned about the initial investment and increased cost (especially in the short term) brought by IO2’s green procurement requirement. For these suppliers, the uncertainty and risks of going green were very high because their long-term agreements with IO2 have a maximum contract period of three years.

4.4.5 Summary of the IO2 case

IO2’s main mandates were population issues and family planning. IO2 received regular funding from governments, NGOs, World Bank and other institutions. Its supply chains were stable. IO2 had big purchasing power for certain categories.

Data from different sources reflected similar characteristics of IO2's identity in its traditional procurement practices. First, like IO1 and IO3, the following four procurement principles represented IO2's strategic elements in its procurement practice: 1) best value for money considering all relevant factors, including costs and benefits to IO2; 2) fairness, integrity, and transparency; 3) open and effective international competition; 4) the interest of IO2. These procurement principles implied that IO2 was not so price-sensitive in comparison to IO1 and IO3. Meanwhile, it didn't rely so heavily on its donors as compared with IO1. From the identity orientation perspective, IO2 adopted a partnership approach with various supply chain stakeholders, including its major suppliers. Its professional collaboration approach enabled procurement practitioners to keep close relationships with suppliers without breaking the procurement principle of transparency and effective competition. Notably, there existed different team cultures within IO2 procurement. The different team cultures had impacts on procurement practitioners' approaches in their procurement practices.

IO2 focused on environmental sustainability and adopted the expression of "green procurement". It declared its goal as to implement green procurement gradually. Accordingly, IO2 adopted a gradual and inclusive approach to engaging its suppliers in its green procurement implementation. As a first step, it focused on its Category B suppliers, which had great environmental impacts and great improvement potential. In addition, IO2 had significant purchasing power and thus influence on these suppliers. IO2 procurement policymakers established the necessary formalization to support its green procurement, including integrating sustainability into the procurement principles, procurement procedures, and quality assurance system, defining the Green Procurement Strategy and relevant work plan and including environmental criteria into the tendering documents and contracts to selected suppliers. Meanwhile, it adopted various approaches to communicating its sustainability identity to its procurement practitioners and suppliers. Besides written communications, it also held supplier conferences and workshops on green procurement. The suppliers in Category B were gradually engaged in IO2's green procurement with supports from IO2. The interview data uncovered that IO2's sustainability identity was salient to procurement practitioners and suppliers in Category B and this identity fitted in

the suppliers' core identities. IO2 achieved considerable progress in Category B within two years after it kicked off its green procurement initiatives. However, the interview data revealed that IO2's sustainability identity was not salient to procurement practitioners in Categories A, C, D, and E.

There were several interesting findings related to IO2's identity in its sustainable procurement: 1) compared to IO1 and IO3, there were fewer potential conflicts between IO2's core identity and green procurement identity; 2) there were high level of consistencies between IO1's publications, documents and website in communications about green procurement; 3) the suppliers in Category B demonstrated a willingness, readiness and capacity to establish an inter-organisational learning network among suppliers before IO2 considered to coordinate these suppliers in doing so. This implied that once the IO2's sustainability identity was salient to the individual suppliers and fitted in their own identities, the shared identities (IO2's commitment on green procurement and being IO2's supply chain stakeholders) developed in the supply chains (for example, among certain suppliers) even without too many efforts from IO2. Notably, formalizations (policies, procedures, and contracts) played an important role in the identity communication and formation process via sense making. Table 30 summarised the key findings of the IO2 case. Figure 20 presents context, process and outcome of IO2's identity issues in its green procurement. After the presentation of the IO2 case, Section 4.5 now presents the case for International Organisation 3 (IO3).

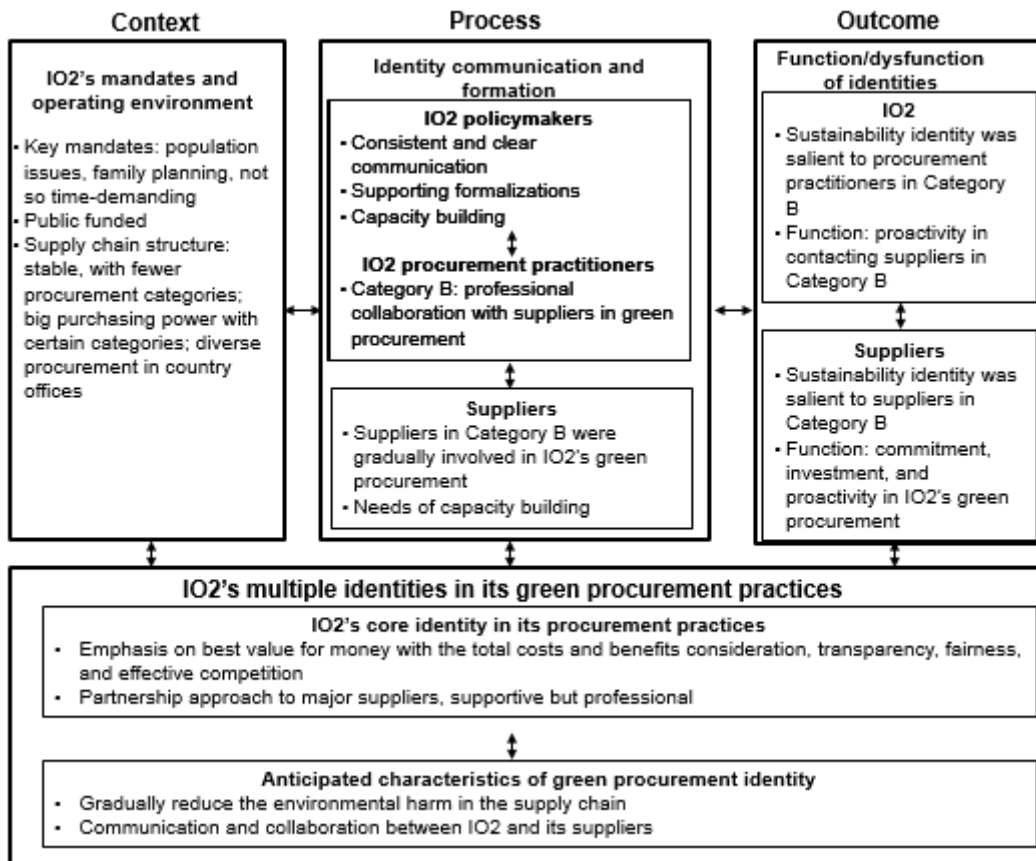


Figure 20 Context, process and outcome of IO2's identity issues in its green procurement

Construct	Variable	Data from secondary sources	Data from policymakers	Data from procurement practitioners	Data from suppliers
Org. identity in traditional procurement practices	Important traits (context)	<ul style="list-style-type: none"> · A public organisation, public funded · The biggest procurer for contraceptives · More stable supply chains with predictable demand and supplier prequalification process · Fewer needs for promoting organisational image 	<ul style="list-style-type: none"> · A public organisation, belonging to the BIO system · No. 1 public procurer for contraceptives · Supplier prequalification process · Not big in organisational size, limited resources · Mutual dependence with major suppliers 	<ul style="list-style-type: none"> · An international organisation within the BIO system. · Big purchasing power for category B · Dependence on donors 	<ul style="list-style-type: none"> · An international organisation within the BIO system · Great purchasing power/potentials · Long-term agreements for 3 years maximum
	Values, beliefs, and behaviours	<ul style="list-style-type: none"> · The procurement principles: (a) the best value for money considering all relevant factors; (b) fairness, integrity, and transparency; (c) open and effective international competition; and (d) the interest of IO2 	<ul style="list-style-type: none"> · Emphasised high ethical standards, cost effectiveness, time efficiency and transparency 	<ul style="list-style-type: none"> · The four procurement principles: · Different team cultures 	<ul style="list-style-type: none"> · Transparency, equality, and competition · Normally sensitive for price, but supported suppliers in their financial crisis by accepting price-increase
	Organisational identity orientation	<ul style="list-style-type: none"> · Partnership approaches with supply chain stakeholders, including key suppliers 	<ul style="list-style-type: none"> · Professional collaboration with its major suppliers 	<ul style="list-style-type: none"> · Partnership approach and with supplier, supportive but equal to suppliers 	<ul style="list-style-type: none"> · Close relationships · Supportive but professional approach
Sustainable SCM	Buzzwords in SCM	<ul style="list-style-type: none"> · “Green procurement.” · Environmental sustainability · Sustainable environment 	<ul style="list-style-type: none"> · “Green procurement.” 	<ul style="list-style-type: none"> · “Green procurement” · “Sustainable” procurement: procurement practices could be sustained for a period of time 	<ul style="list-style-type: none"> · “Green procurement” · “Sustainable” procurement: business between buyers and suppliers could be sustained for a period of time
	Major projects	<ul style="list-style-type: none"> · Green Procurement Strategy 	<ul style="list-style-type: none"> · Worked with category B suppliers on different initiatives to reduce their waste, their environmental footprints 	<ul style="list-style-type: none"> · Category B: inquiry of environmental status; inclusion of environmental criteria in the tendering processes · Other Categories: no 	<ul style="list-style-type: none"> · Category B: inquiry of environmental status; inclusion of environmental criteria in the tendering processes · Other Categories: no

(To be continued)

Construct	Variable	Data from secondary sources	Data from Policymakers	Data from procurement practitioners	Data from suppliers
Org. identity in sustainable SCM	Anticipated important traits	<ul style="list-style-type: none"> Gradually become climate-neutral and environmentally sustainable 	<ul style="list-style-type: none"> Focus on the environmental aspect Focus on the suppliers Inclusive and gradual approach of engaging suppliers on realistic targets Economic returns/savings for suppliers 	<ul style="list-style-type: none"> Green procurement: including environmental issues in procurement Sustainable procurement: long-term development; new business models; relationship management; personal contact; social marketing; change management 	<ul style="list-style-type: none"> Reasonable pricing system/policy; effective forecasting system; explicit communication system; clear long-term agreements; effective monitoring and reporting system; “green procurement” system
	Actual important traits	<ul style="list-style-type: none"> Gradual progress on green procurement Consistency among different resources of secondary data 	<ul style="list-style-type: none"> Gradually involved suppliers in IO2’s green procurement Slow progress at the country offices level 	<ul style="list-style-type: none"> Category B: gradually involved suppliers in green procurement; needs; potential for further actions Other categories: no projects; 	<ul style="list-style-type: none"> Category B: gradually involved supplies in green procurement; needs; potential for further actions Other categories: no projects; expected sustainability premium
	Values, beliefs, and behaviours	<ul style="list-style-type: none"> The formalization supporting green procurement: integration of sustainability in the procurement principles; inclusion of environmental criteria in different stages of procurement and the quality assurance system; high level of the green procurement team 	<ul style="list-style-type: none"> Focused on the environmental aspect Supplier segmentation analysis Focus on Category B suppliers, which had high impacts and improvement potential A gradual and inclusive approach 	<ul style="list-style-type: none"> Category B: proactive in engaging suppliers in green procurement Other categories: claiming that strategies defined without deep understandings of procurement practices; potential workload for procurement practitioners in country offices 	<ul style="list-style-type: none"> Category B: active participation in IO2’s green procurement; needs of inter-organisational learning Other categories: no projects; expected sustainability premium
	Organisational identity orientation	<ul style="list-style-type: none"> Collaboration with various stakeholders: BIO agencies, governments, donors, end users, industries, suppliers Focused on collaboration and interaction with suppliers 	<ul style="list-style-type: none"> Major suppliers as the focus of relationship management 	<ul style="list-style-type: none"> Category B: suppliers as the focus of relationship management Other categories: no supplier engagement in green procurement 	<ul style="list-style-type: none"> Category B: IO2’s supportive approach Other categories: no supplier engagement

Table 30 Summary of IO2 data

4.5 International Organisation 3 (IO3)

This case examined the sustainable procurement practices and the identity-related issues in the stakeholder relationships during sustainable procurement implementation for International Organisation 3 (hereafter “IO3”) within the BIO system. This case is based on the data collected from IO3’s European field/country offices as well as its suppliers based in Europe. There was no interview data from the IO3 headquarters due to the long-time vacancy of the sustainability specialist. There was no response from targeted procurement policymakers and procurement practitioners in IO3 headquarters despite the researcher contacting them several times.

In comparison to IO1 and IO2, IO3 was much larger in procurement value. It was one of the largest organisations within the BIO system in terms of procurement value. IO3 mainly procured services rather than products. The stability of its supply chain was between those of IO1 (very dynamic and diverse) and IO2 (very stable with limited procurement categories). For its suppliers with long-term agreements, it normally maintained comparably closer relationships in comparison to IO1, whereas it kept arm’s-length relationships with its suppliers for spot buy and called them “vendors.” For both types of the suppliers, the supplier relationships were contract-based.

In terms of sustainability implementation in supply chains, although IO3 focused on the environmental aspect of sustainability, it adopted the expression of “sustainable procurement” instead of “green procurement” in its publications, documents, and daily communications. According to IO3’s documents and publications, IO3 defined its sustainable procurement policy and launched the Vendor Outreach Program. This program aimed to increase vendors’ awareness of IO3’s sustainable procurement via on-line information. But according to the interview data, IO3 had limited dialogues with its suppliers at the time of the case study. Besides its own initiatives on sustainable procurement, IO3 was also a key

initiator of the Joint BIO Action project. This project was conducted jointly by World Health Organisation and five BIO organisations (including IO1, IO2, IO3 and the other two BIO organisations). Starting in May 2012, the Joint BIO Action project focused on collaborative actions among these organisations as far as sustainable procurement in health products were concerned. At the time of the interviews (2014), the Joint BIO Action project was still at its planning stage although it began two years previously.

4.5.1 Data from documents and publications

The organisation and its supply chains

With its headquarters and central procurement function in the USA, International Organisation 3 (hereafter “IO3”) was an independent organisation within the BIO system. On the ground in more than 170 countries and territories, IO3 focused on helping countries build and share solutions in the following main areas: 1) poverty reduction; 2) democratic governance; 3) crisis prevention and recovery; 4) environment and energy for sustainable development. In line with its mandates, IO3 had two important characteristics. First, IO3 often operated in a humanitarian context. Second, as declared, one of its major mandates was about “sustainable development” of the world.

Unlike IO1 as a self-funded service provider, IO2 got stable funding from BIO member states, government agencies, foundations, and international financial institutions. Therefore, IO3 didn’t have such strong needs for promoting its organisational image as a means to attract funders. IO3 was one of the largest procurers in the BIO system, with services accounting for approximately 70% of its demand in 2013. Over 70% of its procurement were from developing countries and countries with economies in transition. Appendix E lists the major services and products that IO3 headquarters procured in Year 2013. Rankings in the table were based on procurement value. Procurement for the IO3 country offices was not included in Appendix E. In addition, the procured products and services in country offices were very diverse and subjected to the country contexts.

In terms of procurement responsibility and supply chain structures, IO3 were different from IO1 and IO2. In IO1 and IO2, the headquarters conducted a considerable part of procurement. In IO3, procurement responsibility was “decentralized”. In other words, the procurement practices were conducted from locally by procurement offices located in countries. IO3 headquarters played a limited role in its procurement practices by only providing support and specialized assistance. Having 166 country offices and diverse procured products and services, IO3 has a supply chain which was very complicated and subject to the country contexts.

Appendix F.3 demonstrates IO3’s organisational structure. This chart reflected several important characteristics of IO3. First, there was a Bureau for Crisis Preventions and Recovery, which reported directly to the IO3 Administrator. The existence and the high management levels of this bureau implied that humanitarian issues had high priority in IO3. In comparison to IO3, IO1 did not have this function. While IO2 had a similar function (“Humanitarian Response Unit”), it was at a lower management level. Second, similar to IO1, IO3 highlighted the importance of high ethical standards and transparency and had two related functions in its organisational charts: “Office of Audit and Investigation” and “Office of Ethics.” IO2 didn’t have these functions. Third, in line with its partnership approach to its supply chain stakeholders, IO3 had a function related to external relationship “Bureau of External and Advocacy.” Similarly, with its great attention to partnerships with its supply chain stakeholders, IO2 also had a similar function related to external relationships (“External Relations, BIO Affairs and Management”). In comparison to IO2 and IO3, only IO1 had a function related to its “partners” (donors and clients) relationships, namely “Global Partner Service Office.” The important characteristics of IO3 and its supply chains had significant impacts on its procurement practices and its sustainable procurement implementation.

IO3’s procurement practices

In line with the humanitarian context of IO3’s operations, IO3 emphasised consistent supply and delivery time to urgent needs like providing aids in natural

disasters and wars. Meanwhile, cost efficiency, transparency, anti-corruption, and competition remained high priorities in IO3's procurement practices. Being a public organisation entrusted with donor funds and committed to supporting developing economies, IO3 strictly adhered to the IO3 Financial Regulations and Rules in its procurement practices. The following four general procurement principles guided IO3's procurement practices: 1) best value for money; 2) fairness, integrity, and transparency; 3) effective international competition; and 4) in the best interest of IO3. IO3's procurement principles were similar to those of IO1 and IO2, but with some slight but interesting differences. First, in the principle "best value for money", IO3 didn't mention "considering all relevant factors, including costs and benefits" as IO2 did. This implied that IO3 tended to seek the lowest price in its procurement practices. IO3 adopted six different procurement methods according to procurement value, types of requirements and market conditions. Notably, for most of the procurement circumstances, pricing was an important consideration for contract awards. IO3's emphasis on cost efficiency is similar to that of IO1. But IO2 took different approaches to IO1 and IO3 by considering the total cost and integrated environmental sustainability into its procurement principles. Second, in the principle "in the best interest of IO3", IO3 didn't mention the interest of "partners" as IO1 did. This meant donors/clients might not be as critical to IO3 as they were for IO1.

In terms of supply chain relationships, IO3 highlighted the importance of partnership with its supply chain stakeholders. IO3's major partners included the following: key contributors (donors), other BIO organisations, international financial institutions, civil society organisations, programme country governments, and industries. Notably, unlike IO1 who did not include suppliers in its partnership list, IO3 regarded the private sector as its partner. In comparison to IO2, IO3 didn't explicitly indicate that suppliers were its partners. Therefore, IO3's website information implied that IO3's approach to its supplier relationships was somewhere between those of IO1 (very distant) and IO2 (partner approach).

IO3's sustainable procurement

“Sustainable procurement” was the official expression in IO3’s publications and documents. IO3 adopted BIO’s definition on sustainable procurement (refer to Section 4.2.1). IO3 defined its Sustainable Procurement Policy and announced its commitment to maximizing environmental, social and economic considerations in its procurement process “whenever and wherever possible.” Data from the IO3 procurement policymakers, procurement practitioners and suppliers indicated that IO3 only focused on environmental aspects of sustainability: “sustainable procurement in IO3 means green procurement in fact” (IO3-PP1). The rest of this case will adopt IO3’s official expression, i.e. sustainable procurement.

In terms of supply chain relationships in sustainable procurement, while IO3 addressed a number of climate change issues across its thematic focus areas (e.g. environment and energy for sustainable development), it realized that these problems could not be addressed without making a shift to more sustainable production and consumption practices. Procurement, therefore, played a key role in contributing to sustainable development. IO3 regarded “vendors” (the expression that IO3 used to address its suppliers) as an important stakeholder in the procurement process. Therefore, IO3 announced its intention to engage with vendors who shared the similar goals of IO3 in sustainability implementation.

IO3 had two major sustainable procurement initiatives: the Vendor Outreach Programme and the publication of Practitioner’s Guide to Sustainable Procurement. The Vendor Outreach Programme was a supplier education program. Utilizing web-based materials, training and guidance, this program provided the following four types of information to the suppliers: 1) importance and benefits of becoming sustainable; 2) approaches to become sustainable; 3) available training and resources on sustainability; 4) experiences sharing among companies within the same industry. IO3 published on its website a Practitioner’s Guide to Sustainable Procurement in 2013. This guide defined the sustainable procurement policy for IO3 explicitly. In line with IO3’s commitment to sustainable procurement, this document provided practical implementation guidance in integrating sustainable procurement at the different stages of the procurement

cycle: procurement planning, requirement definition, sourcing, solicitation, and evaluation. According to the guide, sustainable procurement was consistent with BIO and IO3's general procurement principles. The review on other documents revealed some inconsistencies with this declared commitment to sustainable procurement. First, sustainability was not included in either IO3's procurement principles or in its procurement manual. This implied that sustainability might not be the strategic priorities in IO3's actual procurement practices. Second, IO3 didn't define any specific sustainable procurement strategy as IO2 did. Therefore, there was no evidence of an explicit plan as to how IO3 would implement sustainable procurement and how it would engage suppliers in this process. The inconsistency in prioritizing sustainable procurement across documents was also reflected in IO3's organisational structure. Although IO3 had a small team focusing on sustainable procurement like IO1 and IO2, the position of the team manager remained vacant during the researcher's data collection (September 2013 to March 2014).

4.5.2 Data from policymakers

The organisation and its supply chains

According to IO3 procurement policymakers, IO3 had the following important characteristics. First, IO3's mandates involved many humanitarian issues. Thus, delivery time was often an important consideration in its procurement practices. Second, IO3's supply chains were very complex. In detail, over 70% of IO3's procurement were services. Meanwhile, procurement responsibility was very "de-concentrated" (IO3-PM1), with the majority of procurement tasks conducted by 166 country offices. Consequently, although IO3's total procurement value was huge, it didn't have big purchasing power for many of its procurement categories due to the decentralized procurement responsibilities and the diverse country contexts. Third, in consideration of its supply chain complexity and its mandates of humanitarian tasks, IO3 had limited resources in its procurement practices.

IO3's procurement practices

IO3's humanitarian context, limited resources and its role as a public organisation led to IO3's emphasis on delivery time, cost effectiveness and transparency (anti-

corruption) in its procurement practices. Meanwhile, its complex, service-based supply chains and decentralized procurement responsibilities made it very challenging for IO3 to define unified procurement strategies or conduct joint procurement actions. IO3's headquarters or regional offices just provided guidance and supports to country offices. Country offices were the ones who defined the procurement requirement. Since the procurement practitioners in country offices normally worked "in stressful and pressing environments" (IO3-PM1), they often followed the requirements from donors/governments rather than proactively defined procurement specifications.

In terms of supply chain relationships, donors/funders had great power in IO3's supply chains. They had fundamental impacts on IO3's procurement decisions in terms of defining the procurement budget and procurement specifications. In this case, many procurement practitioners, especially those in country offices, often thought they were "pure processors" (IO3-OM1). Compared to IO1, which generally kept arm's-length relationships with its suppliers, IO3 generally kept closer relationships with its long-term agreements suppliers while arm's-length relationships with its spot-buy suppliers. Contacts with suppliers were normally conducted via the BIO on-line procurement system, e-mails, and face-to-face meetings. But everything was "based on contracts" (IO3-PM2).

Sustainable procurement

When talking about sustainable procurement, IO3 procurement policymakers distinguished between green procurement and sustainable procurement. They decided to limit IO3's capacity to green procurement. Given the complexity of IO3's supply chains, they thought it was already very complicated to include environmental aspects of sustainability into procurement practices. So when IO3 procurement policymakers talked about sustainable procurement, they actually meant green procurement, i.e. "including environmental criteria into IO3's procurement practices" (IO3-PM2).

IO3 procurement policymakers mentioned several anticipated characteristics of IO3's sustainable procurement. First, IO3's sustainable procurement focused on the environmental aspects of sustainability. Thus there were needs for integrating

environmental criteria into procurement contracts. Second, including environmental criteria into contracts meant adding new specifications and needing support from the donors and country governments. Therefore, procurement practitioners needed to be capable and proactive in sustainable procurement implementation, taking the initiatives to discuss sustainable procurement with donors/governments. Third, with the general perception that “sustainability is expensive”, sustainable procurement had potential conflicts with IO3’s procurement principle of “best value for money”. Fourth, governments in some developing countries would be reluctant to sustainable procurement implementation. Since governments were major funding sources and the actual decision makers for IO3’s procurement requirement, their reluctance in sustainable procurement implementation implied that sustainable procurement had potential conflicts with IO3’s traditional procurement.

According to the IO3 procurement practitioners, IO3 started talking about green procurement in 1995. It issued a booklet named “Green Procurement for the Office” in 1995, focusing on the environmental issues of facilities and equipment in IO3 offices. IO3 defined its 2013-2018 five-year strategic plan and “talked about sustainability all the way long” (IO3-PM1). But “there haven’t been many changes regarding sustainable procurement since 1995” (IO3-PM1). In terms of sustainable procurement projects, IO3 procurement policymakers mentioned few projects conducted by IO3 alone. IO3 had just started defining which categories should include environmental criteria at the time of the interviews. Although there were many practical guidelines for sustainable procurement in the Practitioner’s Guide to Sustainable Procurement, this was “just a small booklet, not mandatory, not even included in the procurement procedures” (IO3-PM1). In reality, IO3 didn’t include any environmental criteria in any tendering document or contract. Consequently, IO3 seldom engaged their suppliers in its sustainable procurement implementation.

Besides the above two projects, IO3 procurement policymakers mentioned a joint project with World Health Organisation and some other BIO organisations. In May 2012, World Health Organisation and five BIO organisations (including IO1, IO2, IO3 and other three BIO organisations) started their collaborative actions on

sustainable procurement in the health products sectors and launched the Joint BIO Action Project. This project adopted a gradual approach similar to IO2's approach to its green procurement. The organisations in this project planned to engage suppliers in BIO's sustainable procurement practices through a developing and evolutionary process. At the time of the interviews, this project was "still at the planning stage, with slow progress" after two years since its kick-off (IO3-PM2).

The central rationale given to explain IO2's slow progress in its sustainable procurement implementation was that IO2 didn't include environmental criteria in its tendering documents/contracts. "it's easy to put sustainable procurement in a small booklet. But the suppliers will not take this seriously if the sustainability-related standards are not included in the tendering documents" (IO3-PM1). There were several reasons that may have contributed to the absence of environmental criteria in IO3's tendering documents. The first factor was the lack of necessary policies and procedures. As sustainable procurement was not included in either IO3's procurement principles or procurement procedures, the Practitioner's Guide to Sustainable Procurement did not have much "binding" power on either procurement practitioners or suppliers (IO3-PM1). Second, there were not appropriate environmental standards due to the diverse country contexts in IO3's supply chains and the conservative attitudes of the procurement practitioners. According to the IO3 procurement policymakers, setting up procurement standards was "the most important part of the procurement cycle. And this is where the policy element should come in: setting agendas for countries and industries to promote high standards" (IO3-PM1). In reality, there was something "fundamentally wrong" (IO3-PM1) during standards setting-up. The central issue was procurement practitioners' low proactivity in talking sustainability issues to the related supply chain stakeholders. In detail, the procurement practitioners in country offices only followed the requirements from the donors. They didn't proactively talk sustainability issues with relevant stakeholders. The IO3 procurement policymakers argued that the managerial level of the procurement practitioners and sustainability staff in the organisation were generally low in comparison to their responsibilities and the strategic decisions they needed to make. But more importantly, "the self-perception of the procurement practitioners

as pure processors sends out a message that they are not able to make strategic decisions” (IO3-PM1).

Besides the attitudes of the procurement practitioners, communication gaps within the organisation were another challenge. IO3 procurement policymakers found that it was very complicated to get the idea of sustainable procurement through the internal supply chain, from the senior management to the country offices. According to IO3-PM1, "there are big communication gaps among the researchers/consultants, the science committee (the one defining the technical standards of procured services and products), the procurement practitioners and the sustainability people. You can only overcome these gaps when you get these people together". Therefore, IO3 procurement policymakers emphasised the importance of "cutting organisational boundaries and professional boundaries" during sustainable procurement implementation, so as to "ensure a mixture of different perspectives" (IO3-PM1).

4.5.3 Data from procurement practitioners

IO3's procurement practices

In line with its mandate, humanitarian issues had high priorities in IO2's daily operations. During the researcher's data collection, several targeted procurement practitioners were not able to accept the interviews since they "are busy with the recent disaster recovery" (the communication officer). In the researcher's interviews with IO3 procurement practitioners, "limited time and money" was the expression used by all procurement practitioners interviewed (e.g. IO3-PP2).

Regarding IO3's relationships with its suppliers, opinions varied across procurement practitioners. Some procurement practitioners classified two types of supplier relationships: close relationships or partnerships with long-term agreements suppliers, and arm's-length relationships with the "vendors" for spot-buy. These procurement practitioners "have no fear to contact suppliers" (IO3-PP3). Regarding IO3's procurement principle of fairness, integrity, and transparency, these procurement practitioners thought: "in theory, if procurement practitioners share information with one supplier, they need to share the same information with the other suppliers for certain products/service category. In

reality, we can contact particular suppliers” (IO3-PP3). For long-term agreements suppliers, the trust between IO3 and these suppliers was generally high because these IO3 procurement practitioners knew about the suppliers through personal contacts, telephone calls/e-mails, and past quality records for long-term agreements. However, “everything is based on contracts” (IO3-PP3). There were no long-term shared goals. Furthermore, suppliers were not willing to make additional investments or efforts beyond the contracted terms.

Some procurement practitioners argued that for regardless of whether suppliers had long-term agreements, they generally kept long distances with the suppliers. Communications were mainly done via the BIO on-line procurement system, e-mails, and telephones (after the contracts were signed). “it’s more like a contractual relationship” (IO3-PP2). There were three major reasons for these distant supplier relationships. First, IO3 had limited time and resources. For example, “it’s more because of the limited time and limited money, not the policy of anti-corruption” (IO3-PP1). Second, some procurement practitioners were junior in terms of management levels. Thus, they felt they didn’t have the access or power to contact suppliers. For instance, “my boss has more contacts with the suppliers. But at my level, I don’t have too many opportunities to contact suppliers face to face” (IO1-PP1). Third, many procurement practitioners kept long relational distance with the suppliers because of the anti-corruption consideration. For example, “here in IO3, we are not allowed to have personal contact with suppliers because we are in the public sector” (IO3-PP2).

For both the above two approaches with the suppliers, the IO3 procurement practitioners thought IO3’s relationships with their suppliers were contract-based and “cost-driven” (IO3-PP1). IO3’s typical supplier selection process was as the following: “when I submit cases to the contract committee, I just include suppliers’ bidding experience in the past three years, the experience supplying to BIO organisations, turnover ... traditional approach” (IO3-PP1).

Meanwhile, the IO3 procurement practitioners relied heavily on procurement procedures and criteria in the tendering documents: “when selecting suppliers, we look at the procurement manual. If the procurement criteria are met, that’s fine” (IO3-PP2). In line with procurement policymakers’ observation on

procurement practitioners' self-perception as "pure processors", the interview data from the procurement practitioners reveals that many procurement practitioners viewed themselves as "executors", who were not in a position to contact suppliers and other supply chain stakeholders (like donors and governments) for something that was "not on the requirement list" (IO3-PP2).

Sustainable procurement

Different procurement practitioners had different views on what sustainable procurement meant. Some procurement practitioners adopted a narrow definition of sustainable procurement and thought sustainable procurement only focused on the environmental aspect of sustainability. Sustainable procurement in IO3 "means green procurement in fact" (IO3-PP1). Some other procurement practitioners adopted a broader definition of sustainability. For example, "sustainable procurement goes beyond green procurement and carbon footprint, things like that. It also considers social, environmental and economic impacts. Sustainability needs to be integrated into the whole procurement cycle, from the planning stage to the final delivery" (IO3-PP3). Since IO3's supplier relationships were normally contract-based, all procurement practitioners expected there should be "criteria that we can include into the tendering documents" (IO3-PP2).

According to the PP interviewees, the progress of sustainable procurement was still at its early stage, despite nearly twenty years since IO3's first green procurement initiative: "from the website, you can see all the information about sustainability or sustainable procurement. But if you go deep into the procurement practices, sustainability is not incorporated into the procurement process" (IO3-PP2). Some procurement practitioners didn't know about some sustainability projects that IO3 announced on its website. For example, according to the interviews and the researcher's observation during her stay in IO3's regional office in Denmark, many procurement practitioners were not aware the existence of the Vendor Outreach Programme mentioned in Section 4.5.1.

Sustainability criteria were only included in the tendering documents for limited categories. However, "including sustainability in bidding documents is very tricky since there are few internationally accepted standards" (IO3-PP3). The interviewed procurement practitioners associated the lack of well-accepted

standards with the absence of environmental criteria in IO3's tendering documents. Consequently, IO3 seldom had serious dialogues with its suppliers about sustainable procurement: "since there are no sustainability criteria in bidding documents, there are no needs for talking about it" (IO3-PP2). Accordingly, suppliers regarded IO3's informal inquiries as "expression of interests only" (IO3-PP3) and didn't make any commitment to sustainability-related investment upon this kind of inquiries. Notably, although IO3 has a small team focusing on sustainable procurement like IO1 and IO2, the position of the team manager was vacant during the entire period of researcher's data collection (1 year). Therefore, in IO3, sustainable procurement projects "had been suspended for quite a while" (IO3-PP1).

4.5.4 Data from suppliers

IO3 recommended several suppliers for the case study. However, only two suppliers responded to the researcher. Both suppliers were special in comparison to the regular suppliers in the IO1 and IO2 cases. One supplier was a public procurement organisation, which provided procurement services to IO3 for certain procurement categories. The other supplier was a consulting company focusing on delivering sustainable infrastructure advice and claiming that their services were "all about sustainability" (IO3-S02).

IO3 and its procurement practices

Although both of the suppliers had long-term agreements with IO3, neither of them thought they had close relationships with IO3. According to one supplier interviewee, IO3 had very "systematic and bureaucratic" procedures (IO3-S02). "There are so many procedures, so many things that have to be done in specific or systematic ways. It's a barrier for suppliers to do things differently" (IO3-S02). In addition, the supplier selection during the tendering processes was very "black or white" (IO3-S02).

Sustainable procurement

Both the suppliers interviewed provided similar academic definitions of sustainable procurement and mentioned the triple bottom line of sustainability. In addition, one supplier argued that sustainable procurement should be based on

the sustainability of the business, and “make the suppliers meet the standards the buyer requires” (IO3-S02). This supplier emphasised the role of innovation and flexibility in sustainable procurement: “to be sustainable, we have to be innovative, think things differently. Maybe a little bit risky? Sometimes taking risks may have more sustainable outcomes” (IO3-S02).

According to both suppliers, IO3 hadn’t discussed any sustainability issues with them by any means. One supplier was asked to “tick the box” (IO3-S02) for some sustainability criteria for data collection purposes during the tendering processes. Actually, both of the suppliers had some sustainability initiatives of their own. In detail, the public organisation had sustainable procurement initiatives with its own suppliers, adding sustainability criteria in its tendering processes. The consulting company provided sustainability solutions to infrastructure design projects. According to the suppliers, the biggest challenge for IO3 was how to balance the flexibility and creativity needed for sustainability implementation and the “strict and inflexible” (IO3-S02) procurement procedures driven by the IO3’s procurement principles of transparency and fairness. Since about 70% of IO3 procurement were services, which normally were difficult to be judged by mere “quantitative approaches” (IO3-S01), the strict and inflexible procedures had the potential to hinder suppliers’ innovation ability during sustainability implementation. Furthermore, suppliers of creative sustainability solutions might lose the contracts from IO3 because they can’t tick the sustainability “Yes” box during the tendering processes.

4.5.5 Summary of the IO3 case

IO3 was an international organisation within the BIO system, often operating in a humanitarian context. Its core funding came from governments. IO3’s supply chains were service-based. Since the majority of its procurement was conducted by 166 country offices, IO3’s procurement was very decentralized and subject to specific country contexts. Data from secondary sources and interviews uncovered the following characteristics of its traditional procurement practices. First, like IO1 and IO2, the following four procurement principles presented IO3’s core values in its procurement practices and guided the behaviours of its procurement practitioners in their daily work: 1) best value for money; 2) fairness,

integrity, transparency; 3) effective international competition; 4) the Interest of IO3. Accordingly, IO3 management emphasised cost-effectiveness and delivery time to the IO3 procurement practitioners. Humanitarian issues remained high priorities in IO3's operations. IO3 emphasised the partnership approach with various stakeholders and generally kept closer relationships with suppliers. However, these relationships were normally contract-based. The IO3 procurement practitioners often thought they were pure processors and stuck to the procurement procedures and followed the requirement from donors or governments.

Although IO3 used the expression of sustainable procurement in its documents, publications, and daily communications, it actually focused on environmental sustainability. IO3 declared its commitment to sustainable procurement on its website and in some of its documents. There were considerable disagreements between the procurement policymakers, procurement practitioners and suppliers about the anticipated characteristics of sustainability identity. In detail, IO3 procurement policymakers wanted to integrate environmental criteria into IO3's tendering documents and contracts to the suppliers and expected that the procurement practitioners to take the initiatives and be innovative to have dialogues with governments/donors and suppliers. However, the IO3 procurement practitioners were more concerned with the needs for well accepted environmental criteria to ensure fairness, transparency, and competition. They hoped that there were procurement principles and/or donors' requirements that enabled them to include environmental criteria in the tendering processes. Suppliers perceived that sustainable procurement should first be considered with the sustainability of the business. They argued that sustainable procurement required feasibility and innovation in buyer-supplier relationships.

In terms of communicating its sustainability identity, there were inconsistencies in IO3's publications, documents, and website information. IO3 hadn't established the necessary formalizations required for supporting sustainable procurement and supplier engagement in this process. There were significant communication gaps within IO3, between the procurement policymakers and procurement practitioners, as well as between the headquarters and country offices. Furthermore, there was little supplier engagement in IO3's sustainable

procurement. Consequently, both the procurement practitioners and suppliers didn't perceive a salient sustainability identity. Some procurement practitioners even thought that IO3's sustainable procurement had been suspended. As a result, those IO3 procurement practitioners generally had low motivation to contact donors/governments and suppliers about sustainable procurement issues if there was no requirement from donors. Suppliers had low motivation to talk about sustainable procurement issues with IO3 proactively and felt they were stopped by IO3's inflexible system.

There were several identity-related issues related to IO3's sustainable procurement. First, there were potential conflicts between IO3's core identity and the characteristics of sustainability identity anticipated by its procurement policymakers and suppliers. In detail, sustainable procurement required creativity, flexibility, innovation and adding new criteria into the tendering documents. However, IO3's core identity emphasised transparency, fairness, and effective competition, which restricted the creativity, flexibility, innovation and inclusion of environmental criteria in the tendering documents. Second, there was a considerable inconsistency between IO3's intended identity (commitment to sustainable procurement) and the actually perceived identity from the procurement practitioners and suppliers (little progress in sustainable procurement). Third, the identity inconsistency was associated with low motivation and proactivity of the IO3 procurement practitioners in engaging suppliers and other stakeholders (like governments and donors) in sustainable procurement practices. Externally, this identity inconsistency was associated with suppliers' low motivation in discussing sustainable procurement issues, as well as a potential to increase prices. Table 31 summarises the data from secondary resources, procurement policymakers, procurement practitioners and suppliers. Figure 21 presents context, process, and outcome of IO3's identities issues in its sustainable procurement implementation.

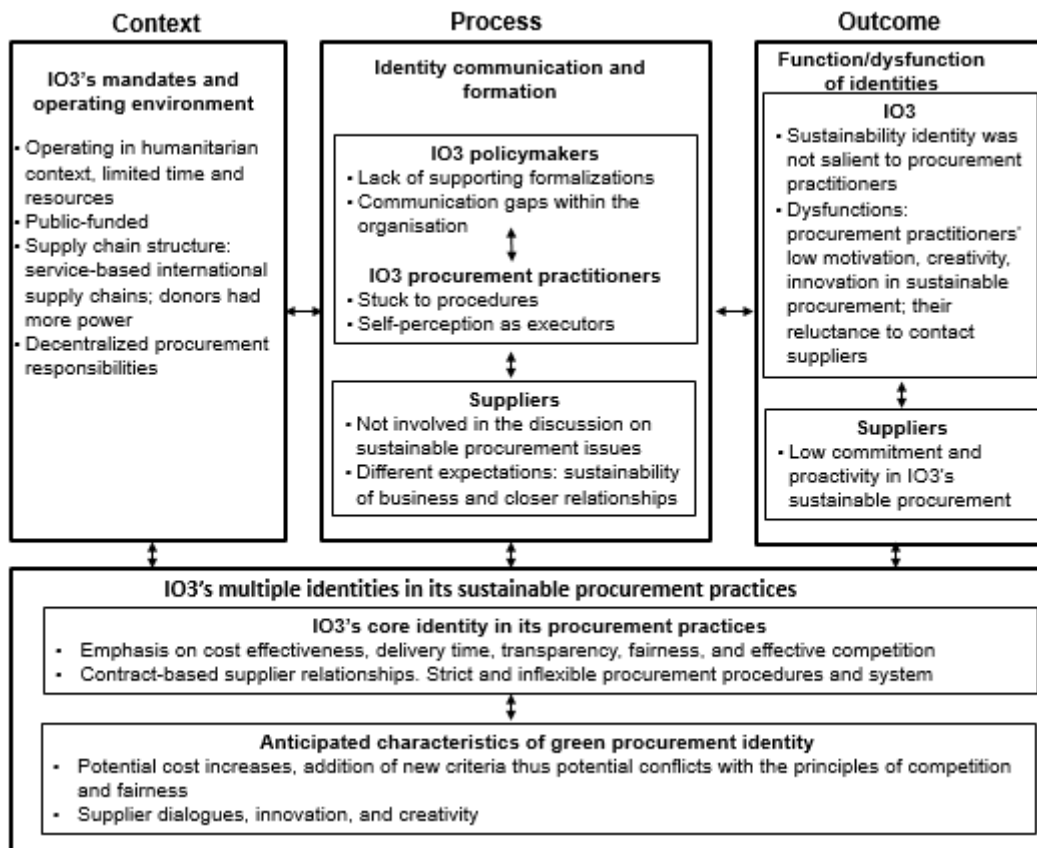


Figure 21 Context, process, and outcome of IO3's identities issues in its sustainable procurement implementation

Construct	Variable	Data from secondary sources	Data from policymakers	Data from procurement practitioners	Data from suppliers
Organisational identity in regular procurement practices	Important traits (context)	<ul style="list-style-type: none"> · Entrusted with public funds; · Complex, service-based humanitarian supply chains; · Decentralized procurement functions; · Fewer needs for promoting the organisational image. 	<ul style="list-style-type: none"> · Humanitarian issues, limited resources · Complex service-based supply chains · Decentralized procurement led to the limited purchasing power and diverse country contexts. 	<ul style="list-style-type: none"> · An international organisation within the BIO system; · Operating in humanitarian context; · Limited time and money. 	<ul style="list-style-type: none"> · An international organisation within the BIO system · Service-based supply chains
	Values, beliefs, and behaviours	<ul style="list-style-type: none"> · The procurement principles: (a) the best value for money; (b) fairness, integrity, transparency; (c) open and effective international competition; and (d) the interest of IO3 	<ul style="list-style-type: none"> · Emphasis on delivery time, cost effectiveness, and transparency; · High ethical standards. · Low management levels of the procurement practitioners 	<ul style="list-style-type: none"> · Humanitarian issues thus delivery time had higher priorities; · Strictly followed the procurement principles and the tendering criteria. 	<ul style="list-style-type: none"> · Systematic and bureaucratic procedures · Tick-the-box, black or white approach to supplier selection, which might not be suitable for service suppliers
	Organisational identity orientation	<ul style="list-style-type: none"> · Partnership approach with donors, other BIO organisations, international financial institutions, civil society organisations, governments and the private sector 	<ul style="list-style-type: none"> · Dependence on donors · Close but contract-based supplier relationships 	<ul style="list-style-type: none"> · Closer supplier relationships in comparison to IO1; · Contract-based supplier relationships. 	<ul style="list-style-type: none"> · Not close relationships · Low flexibility in supplier relationships
Sustainable SCM	Formal expression related to sustainable SCM	<ul style="list-style-type: none"> · “Sustainable procurement” · Environmental sustainability 	<ul style="list-style-type: none"> · “Sustainable procurement” · Environmental sustainability 	<ul style="list-style-type: none"> · “Green procurement” · “Sustainable procurement”: including the social and environmental issues in whole procurement cycle 	<ul style="list-style-type: none"> · “Sustainable procurement” · “Sustainable” procurement”: business could be sustained for a certain period of time
	Major projects	<ul style="list-style-type: none"> · Vendor Outreach Programme · Practitioner’s Guide to Sustainable Procurement 	<ul style="list-style-type: none"> · Requirement definition · The Joint BIO Action Project: planning stage 	<ul style="list-style-type: none"> · Environmental criteria included in limited categories 	<ul style="list-style-type: none"> · No

(To be continued)

Construct	Variable	Data from secondary sources	Data from Policymakers	Data from procurement practitioners	Data from suppliers
Organisational identity in sustainable SCM implementation	Anticipated important traits	<ul style="list-style-type: none"> · Procurement with the lowest environmental impacts and most positive social results · To engage with vendors 	<ul style="list-style-type: none"> · Procurement practitioners to take initiatives to integrate environmental criteria into the tendering processes · To have dialogues with the private sector; · To initiate innovative approaches to procurement practices 	<ul style="list-style-type: none"> · Well accepted environmental criteria to ensure fairness, transparency, and competition; · Sustainability to be included in the procurement principles, procedures, and the tendering documents. 	<ul style="list-style-type: none"> · To make the suppliers meet the standards, the buyer required; · Flexibility, innovation.
	Actual important traits	<ul style="list-style-type: none"> · Only on-line communications · A lack of the formalizations supporting sustainable procurement 	<ul style="list-style-type: none"> · No many changes since 1995 · Started defining which categories should include environmental criteria · The joint BIO Action Project at beginning stage 	<ul style="list-style-type: none"> · Sustainability was not incorporated into the procurement process · Some procurement practitioners didn't know about the sustainable procurement projects announce by IO3 website 	<ul style="list-style-type: none"> · No discussion with suppliers regarding sustainability issues.
	Values, beliefs, and behaviours	<ul style="list-style-type: none"> · A lack of the formalizations supporting sustainable procurement: no strategy, sustainability not included in the procurement principles, procedures, and the tendering documents; · The vacancy of the sustainability team manager 	<ul style="list-style-type: none"> · Procurement practitioners were reluctant to discuss with governments/donors 	<ul style="list-style-type: none"> · Procurement practitioners would not include environmental criteria into the tendering documents if not required 	<ul style="list-style-type: none"> · Procurement practitioners stuck to procedures and policies; · IO3's low flexibility and creativity in procurement practices; · Ticking-box approaches in procurement.
	Organisational identity orientation	<ul style="list-style-type: none"> · No evidence for supplier engagement 	<ul style="list-style-type: none"> · Major suppliers as the focus of relationship management 	<ul style="list-style-type: none"> · No supplier engagement 	<ul style="list-style-type: none"> · No dialogue with suppliers

Table 31 Summary of IO3 data

4.6 Summary of findings

This chapter presented the researcher's findings in the field study, including the preliminary study in China and the three case studies in a big international organisation system. The preliminary study in China was used to obtain an initial understanding of sustainable SCM and identity-related issues in developing countries and countries with emerging economies. The secondary data, workshop/conference, and participation observation provided an overview of sustainable SCM in China. The interview data examined the perspectives of the focal companies, the suppliers, and the NGOs.

Multiple sources provided evidence that sustainability was still at its early stage in China, with CSR or green SCM as popular words with few real actions. Economic responsibility remained the key CSR responsibility for firms in China. Companies in China often regarded CSR projects as one-off philanthropic events or/and sales of the so-called "environmentally-friendly" products. Some Chinese companies also reported compliance to national standards and regulations as their major CSR projects. Supply chain transparency was generally low, with few suppliers involved in companies' CSR projects. The types of CSR projects implied that a considerable number of Chinese companies just used CSR projects to increase their organisational image so as to attract customers and increase their sales volumes. Therefore, there are considerable identity inconsistencies between the focal companies' intended identities (e.g. good corporate citizens paying attention to CSR) and the identities perceived by the internal and external stakeholders (e.g. paying attention to making profits and ignoring their compliance responsibility and social/environmental impacts). There also existed significant identity disagreements between different stakeholders. For example, some business leaders regarded economic responsibility as the main characteristics of CSR identity, whereas some internal stakeholders (e.g. employees) and external stakeholders (e.g. NGOs) defined compliance or green SCM as the major characteristics of CSR identity. The identity inconsistencies and/or disagreements were associated with the frustration and demotivation of both internal and external stakeholders. The preliminary study also revealed that power allocation played an important role in Chinese firms' CSR projects. The

preliminary study also suggested that economic interdependence was crucial to buyer-supplier identification.

The three cases examined the sustainable SCM of three international organisations and the identity issues in the inter-organisational relationships during this process. These case organisations were based in developed countries (Denmark or the USA), with their procurement offices and suppliers located globally in both developing and developed countries. Therefore, to some extent, the three cases reflected the status of sustainable SCM of and the identity issues in the inter-organisational relationships during this process in both the developing and developed countries.

In the three cases, the official expression for sustainable SCM was sustainable procurement or green procurement. All the three focal organisations intended to add the element of sustainable procurement or green procurement into their core organisational identities, with different ambitions. The focal organisations' documents, publications and website information were used as important evidence for these organisations' identity regulations and communications. The interview data reflected different perspectives from the internal stakeholders (procurement policymakers and procurement practitioners) and external stakeholders (suppliers).

The three case organisations differed in their mandates, organisational size, funding resources, and supply chain structures. Thus procurement policymakers within each organisation had different goals on sustainable procurement or green procurement. Accordingly, they adopted different approaches to communicating and implementing their sustainable procurement/green procurement practices. Consequently, procurement practitioners and suppliers in these three cases had different perceptions about the case organisation's identity related to sustainable procurement/green procurement. Accordingly, they took different attitudes and reactions to the focal organisations' sustainable/green procurement.

Several key themes emerged from the three cases. First, there existed dual identities during sustainable procurement/green procurement implementation of the three organisations. Meanwhile, there were different levels of identity conflicts

between the core organisational identities and sustainable procurement/green procurement identities of these organisations. Second, formalization and its manifestation (e.g. policies, procurement principles, procedures, and contracts) played an important role in the identity process. Third, there were different levels of identity congruence. In detail, the three focal organisations had different levels of congruence between their intended identities (commitment to sustainable procurement or green procurement) and the actual identities perceived by their internal (e.g. procurement policymakers and procurement practitioners) and external stakeholders (e.g. suppliers). The findings of the three cases revealed that the sustainability identity was salient in the IO2 case. There was not strong evidence that sustainability identity was salient in the IO1 or IO3 cases. Fourth, different stakeholder groups may have different perspectives on identity issues in sustainable procurement/green procurement implementation. Lastly, although only suppliers as external stakeholders were interviewed, the data from procurement policy makers, procurement practitioners, and suppliers revealed that other stakeholders, especially the donors/clients/funders had great impacts on the inter-organisational relationships and identity issues during sustainable procurement/green procurement implementation. Table 32 summarises the key findings of each case. After the presentation of findings, Chapter 5 now reconciles the data from the three cases into a cross-case analysis.

Construct	Variable	IO1	IO2	IO3
Organisational identity in traditional procurement practices	Important traits (context)	<ul style="list-style-type: none"> · <u>Mandates</u>: often related to humanitarian issues · <u>Funding resources</u>: self-funded as a service provider, needs of promoting organisational image · <u>Supply chain structure</u>: project-based supply base, service-based (over 50%) supply chains, donors had more power 	<ul style="list-style-type: none"> · <u>Mandates</u>: population and family planning · <u>Funding resources</u>: regularly funded, fewer needs of promoting organisational image · <u>Supply chain structure</u>: stable supply chain with limited categories and limited numbers of suppliers; big procurement power; main procured products: health products. Country offices procured diverse products. 	<ul style="list-style-type: none"> · <u>Mandates</u>: humanitarian issues · <u>Funding resources</u>: regularly funded, fewer needs of promoting organisational image; limited resources · <u>Supply chain structure</u>: complex service-based (over 70%) supply chains; decentralized procurement led to the limited purchasing power and diverse country contexts.
	Values, beliefs, and behaviours	<ul style="list-style-type: none"> · <u>The procurement principles</u>: 1) best value for money; 2) fairness, integrity, and transparency; 3) Effective competition; 4) the interest of IO1 and its partners · <u>Priorities</u>: cost effectiveness, delivery time, humanitarian issues · <u>Procurement practitioners</u>: anti-corruption concerns, followed the rigid and mechanic procurement system, worked in silo organisational structure 	<ul style="list-style-type: none"> · <u>The procurement principles</u>: 1) best value for money considering all relevant factors, including costs and benefits to IO2; 2) fairness, integrity, and transparency; 3) open and effective international competition; 4) the interest of IO2 · <u>Priorities</u>: cost effectiveness, transparency, delivery time · <u>Procurement practitioners</u>: different team cultures 	<ul style="list-style-type: none"> · <u>The procurement principles</u>: 1) best value for Money 2) fairness, Integrity, Transparency 3) effective International Competition · 4)The Interest of IO3 · <u>Priorities</u>: cost effectiveness, delivery time, humanitarian issues · <u>Procurement practitioners</u>: self-perception of “pure processor or executor”, stuck to procurement procedures and requirements from donors
	Organisational identity orientation	<ul style="list-style-type: none"> · Emphasised partnership with donors/clients · Suppliers as “vendors”, arm’s-length supplier relationships 	<ul style="list-style-type: none"> · Partnerships with governments, other BIO agencies, communities, NGOs, foundations, academic institutions, and the private sector. · Partnerships with major suppliers 	<ul style="list-style-type: none"> · Partnerships with · Closer (in comparison to IO1) but contract-based supplier relationships
	Identity salience	<ul style="list-style-type: none"> · Salient, consistencies among data 	<ul style="list-style-type: none"> · Salient, consistencies among data 	<ul style="list-style-type: none"> · Salient, consistencies among data
Intended identity related to sustainable procurement	Goal on sustainable procurement	<ul style="list-style-type: none"> · To make sustainability an integral part of all its procurement practices · Expertise and leadership in sustainable procurement 	<ul style="list-style-type: none"> · To gradually become climate-neutral and environmentally sustainable 	<ul style="list-style-type: none"> · Committed to sustainable procurement and will maximize environmental, social and economic considerations in the procurement process whenever and wherever possible
Anticipated important traits of sustainability identity	Anticipated important traits	<ul style="list-style-type: none"> · <u>Procurement policymakers</u>: different views among procurement policymakers; to increase organisational image and market IO1’s services; humanitarian issues had higher priorities · <u>Procurement practitioners</u>: sustainability was often thought expensive; importance of supplier assessments, communications, and cooperation with suppliers · <u>Suppliers</u>: sustainability of business, closer relationships, sustainability premium 	<ul style="list-style-type: none"> · <u>IO2</u>: Focus on the environmental aspect; inclusive and gradual approach of engaging suppliers on realistic targets ; economic returns/savings for suppliers · <u>Suppliers</u>: sustainability of business, reasonable pricing system/ policy; effective forecasting; explicit communications; clear long-term agreements; effective monitoring and reporting; “green procurement” system 	<ul style="list-style-type: none"> · <u>Procurement policymakers</u>: procurement practitioners to take initiatives; dialogues with the private sector; initiate innovative; potential price increase · <u>Procurement practitioners</u>: well accepted environmental criteria to ensure fairness, transparency, and competition; sustainability to be included in the procurement principles, procedures and tendering processes · <u>Suppliers</u>: sustainability of business; feasibility and innovation
	Conflicts with the core identity?	<ul style="list-style-type: none"> · Yes; conflicts with the existing procurement principles and arm’s-length relationships 	<ul style="list-style-type: none"> · Not many conflicts 	<ul style="list-style-type: none"> · Yes. Conflicts with the existing procurement principles: potential prices increase, new criteria; conflicts with existing arm’s-length relationships and strict rules
Anticipated important traits of sustainable procurement/sustainability identity	Consistencies among data	<ul style="list-style-type: none"> · IO1 and its suppliers had different expectations. Suppliers expected that business could be sustained. procurement policymakers wanted to use sustainable procurement to increase IO1’s organisational image and promote IO1’s services 	<ul style="list-style-type: none"> · The suppliers had more expectations except integrating environmental criteria into procurement. They mentioned the importance of regular procurement practices 	<ul style="list-style-type: none"> · Procurement policymakers, procurement practitioners, and suppliers had different expectations

Construct	Variable	IO1	IO2	IO3
Identity communication and formation in sustainable procurement/green procurement	Communications	<ul style="list-style-type: none"> Inconsistency in publications, documents & website Inconsistency in procurement policymakers' opinions Communications to procurement practitioners in headquarters only, limited communications to procurement practitioners in regional/country offices No discussion with suppliers 	<ul style="list-style-type: none"> Consistency in publications, documents, and website Procurement policymakers' opinions were consistent, in line with the publications, documents & website Communication on green procurement only to procurement practitioners and suppliers in Category B, not to those in the other categories 	<ul style="list-style-type: none"> Inconsistency in publications, documents, and website; Communications about sustainable procurement suspended due to vacancy of people in charge of sustainable procurement; Communication gaps; organisational boundaries
	Formalization	<ul style="list-style-type: none"> A lack of the necessary formalizations supporting sustainable procurement: sustainability not included in the procurement principles, no sustainable procurement strategies, seldom included sustainability criteria into the tendering processes unless requested by donors 	<ul style="list-style-type: none"> Set up the necessary formalizations supporting green procurement: total cost included in the procurement principles; green procurement included in the procurement manual and quality assurance; green procurement strategies and principles; included sustainability criteria into the tendering processes for Category B suppliers 	<ul style="list-style-type: none"> A lack of the necessary formalizations supporting sustainable procurement: sustainability not included in the procurement principles, no sustainable procurement strategies, seldom included sustainability criteria into the tendering process unless requested by donors
Perceived sustainability identity	Procurement policymakers	<ul style="list-style-type: none"> Different opinions: "a leader" vs. "an early stage in sustainable procurement." 	<ul style="list-style-type: none"> Gradual progress according to green procurement strategy and work plan 	<ul style="list-style-type: none"> Slow progress, not much changes since 1995
	Procurement practitioners	<ul style="list-style-type: none"> Early stage in sustainable procurement; basic steps to promote organisational image 	<ul style="list-style-type: none"> <u>Category B</u>: gradual progress according to green procurement strategy and work plan Other categories: no projects 	<ul style="list-style-type: none"> Early stage in, implementation suspended for a while
	Suppliers	<ul style="list-style-type: none"> Early stage in sustainable procurement; used sustainable procurement to look nice on the website 	<ul style="list-style-type: none"> <u>Category B</u>: IO2 was serious about green procurement Other categories: no projects 	<ul style="list-style-type: none"> An early stage in sustainable procurement; used sustainable procurement to look nice on the website. Tick-the-box approach
Outcome	Function /dysfunction of identity issues	<ul style="list-style-type: none"> Procurement policymakers need legal framework to protect their contacts with suppliers <u>Procurement practitioners</u>: fears and reluctance to contact suppliers for sustainable procurement issues; low motivation, flexibility, and innovation <u>Suppliers</u>: low proactivity, no commitments, and investment, potential to increase prices 	<ul style="list-style-type: none"> <u>Procurement practitioners in Category B</u>: supports to and collaboration with suppliers <u>Procurement practitioners in other categories</u>: low motivation <u>Suppliers in Category B</u>: motivation, inter-organisational learning; investment and commitment Suppliers in other categories: low proactivity, no commitments, and investment, potential to increase prices 	<ul style="list-style-type: none"> <u>Procurement practitioners</u>: low motivation, flexibility, and innovation <u>Suppliers</u>: low proactivity, no commitments, and investment, potential to increase prices

Table 32 Summary of the key findings in the three cases

CHAPTER 5 ANALYSIS

This chapter conducts an analysis of the identity regulations and communications of the focal organisations, as well as the responses of the internal stakeholders (e.g. procurement practitioners) and external stakeholders (e.g. suppliers) towards these identity regulations and communications. Section 5.1 summarises the similarities among the three cases and similarities between interview data from the focal organisations and the suppliers. Section 5.2 compares the differences between the three cases. Section 5.3 classifies focal organisations' identity regulation and communication strategies by constructing a typology of these organisations strategies and behaviours during their sustainable procurement implementation. This section also classifies the identification types of internal stakeholders (procurement policymakers and procurement practitioners) and external stakeholders (suppliers). Section 5.4 summarises the key findings of this research and revisits the initial conceptual framework.

5.1 Similarities

5.1.1 Similarities among the three cases

First, data from the three cases reveal that the core organisational identities were salient to both the internal (procurement policymakers and procurement practitioners) and external stakeholders (suppliers). In other words, the characteristics of the focal organisations declared internally and externally about themselves were similar to those perceived by their internal and external stakeholders. Belonging to the same internal organisational system, the three focal organisations had some common characteristics in their core organisational identities. First of all, the mandates of all the three case organisations were related to the social aspect of sustainability. In the BIO system, the term "mandates" refers to the official responsibilities assigned by the BIO system. Second, the procurement principles represented the distinctive characteristics of their procurement practices and emphasised the following factors: 1) cost-effectiveness; 2) fairness and transparency; 3) competition; 4) the interest of the organisation. Third, the three focal organisations were all in the public sector. Thus, their procurement was conducted strictly according to procedures and rules.

Notably, formalizations (e.g. procurement principles, procedures, tendering documents, and contracts) played an important role in sense-making during identity formation. Formalizations were crucial to the identity perceptions of procurement practitioners and suppliers. In detail, what was written in the procurement principles and the procurement manual influenced heavily the approach of how the case organisations liaised with their suppliers thus the relational identities of the buyer-supplier relationships. Moreover, the following factors in the formalizations sent out strong messages to both procurement practitioners and suppliers about whether the focal organisations were serious about their sustainability implementation: 1) whether sustainability was included in the procurement principles and the procurement manual; 2) whether sustainability was included in the tendering documents and procurement contracts.

The second similarity between the cases was the impact of power on inter-organisational relationships in sustainable procurement. More specifically, all the three focal organisations were in the public sector. Their funding came from governments and donors (IO2 and IO3) or clients (IO1). Therefore, donors, governments or clients had more power than the case organisations and the other stakeholders (for example, suppliers) in these supply chains. They were the decision makers on the procurement requirement and procurement criteria of the three focal organisations. All the three focal organisations emphasised their relationships with donors/governments. The attitudes of these stakeholders to sustainability had great impacts on the sustainable procurement practices of the focal organisations and their engagement of other stakeholders (for example, suppliers) in sustainable procurement.

Third, sustainability implementation brought changes and complexities to the focal organisations and the inter-organisational relationships in their supply chains. The first change was that sustainability implementation meant changes in procurement standards, thus imposed new requirements on suppliers. In detail, all three focal organisations were in the public sector, and their procurement practices strictly followed procurement principles, procedures, and contracts. Therefore, sustainable procurement meant adding new criteria in the tendering and contracting processes. Consequently, the procurement policies and procedures needed to be changed accordingly. The second change was that sustainability implementation brought

changes to the inter-organisational relationships dynamics. As mentioned above, governments or clients were more powerful than the focal organisations and the other stakeholders (for example, suppliers) in these supply chains. They were the ones who decided what to procure with what criteria. Therefore, adding sustainability criteria into the tendering and contracting documents couldn't be decided by the focal organisations alone and needed the agreements and supports from their clients or donors. This implied that there was a need for looking at the sustainable procurement issues beyond the traditional dyadic relational view and moving to a supply network view. In addition, all the three focal organisations had global supply chains. In comparison to many organisations in the private sector, particularly those of small or medium sizes, their supply chains and inter-organisational relationships in their supply chains were complex, with suppliers located in both developing and developed countries. Some suppliers (especially those in the developing countries) were not ready to meet certain standards related to social and or environmental sustainability. Hence, adding sustainability as a new procurement criterion in the focal organisations' procurement practices meant preventing these suppliers from competing or potentially increasing their costs in supplying to the focal organisations.

Another similarity was the importance of the perceptions, attitudes, and behaviours of procurement practitioners. If procurement practitioners (such as the IO2 procurement practitioners in Category B) perceived that their organisations were serious to sustainable procurement/green procurement, they would proactively contact the suppliers for sustainable procurement/green procurement issues. In contrast, if procurement practitioners didn't perceive a salient sustainability identity (like the IO1 and IO3 cases, as well as some procurement practitioners in IO2), they were reluctant to contact suppliers or other stakeholders (e.g. governments, donors, clients) for sustainability issues. Consequently, suppliers did not perceive a salient sustainability identity in their contact with these procurement practitioners. In other words, the suppliers didn't perceive the focal organisations' commitment to and efforts toward to sustainable procurement/green procurement implementation via observing procurement practitioners' attitudes to and behaviours in focal organisations' sustainable procurement/green procurement implementation.

5.1.2 Similarities between the suppliers and the focal organisations

First, for both the focal organisations and the suppliers, the economic aspect of sustainability remained a high priority in comparison to the social and environmental aspects. From the focal organisations' perspective, the importance of the economic pillar was reflected in focal organisations' emphasis on cost effectiveness in their procurement practices. From the suppliers' perspective, earning profit was their first priority. This finding was also echoed in the preliminary study, where the majority of the Chinese companies regarded economic responsibility as their core responsibilities. However, both the focal organisations and their suppliers generally thought that sustainability was expensive. When focal organisations initiated sustainability implementation in their supply chains, the emphasis on the economic aspects could lead to competing priorities in their procurement practices thus in turn lead to the potential identity conflicts between the focal organisations' SIs and their core identities. In detail, sustainability identities were often associated with internal and external stakeholders' perceptions of potential cost increases and additional investment, while the core identities were often associated with cost effectiveness.

The second similarity was the needs for close buyer-supplier relationships, open communications and information sharing in sustainable procurement. All the three case organisations were in the public sector and emphasised transparency, fairness, and competition in their procurement practices. However, sustainability implementation meant introducing new procurement criteria/requirement into procurement practices. Therefore, the majority of suppliers and a considerable amount of procurement policymakers and procurement practitioners agreed that sustainable procurement required the procurement practitioners have both proactivity and creativity in defining new procurement criteria. They argued that procurement practitioners should proactively have dialogues with the relevant stakeholders, including 1) governments, donors, and clients who defined the procurement criteria; 2) suppliers. In short, both the focal organisations and suppliers agreed that sustainability implementation required changes in the procurement practices. Thus, there existed potential identity conflicts between the core and sustainable procurement/green procurement identities. In detail, the core identities emphasised transparency, fairness, and competition in the procurement practices, while the sustainable procurement/green procurement identities were associated with the

characteristics of flexibility in stakeholder relationships, closer relationships with some suppliers which had the potential of sustainability implementation.

Both the similarities between the three case organisations and the similarity between the focal organisations and suppliers indicated that the core identities were salient for all the three focal organisations. Meanwhile, the focal organisations and the suppliers had some similar anticipation about the sustainability identities. Table 33 summarises these similarities. Notably, the anticipated characteristics of SI had some potential conflicts with the characteristics of the core organisational identities. Therefore, a central challenge for focal organisations in their sustainable procurement implementation was to manage these identity conflicts/tensions.

Since the three focal organisations had differences in their operational contexts, characteristics, and purposes of sustainability implementation, they adopted different identity regulations and communications strategies in their sustainable procurement practices to deal with the potential conflicts mentioned above. There was also a varying response from their internal stakeholders (e.g. procurement practitioners) and external stakeholders (suppliers). Section 5.2 discusses these differences.

Key constructs	Characters of core identities	Anticipated characteristics of sustainability-related identities
· Procurement principles (key values in procurement)	· Cost-effectiveness;	· Sustainability is expensive
· Supplier relationships	· Fairness and transparency; · Competition	· Close buyer-supplier relationships, open communications, and information sharing in sustainable procurement, maybe with some selected suppliers
· Formalizations	· Procurement was strictly according to procedures and contracts	· Sustainability meant bringing new criteria into procurement process, thus need changes in procedures and contacts
· Behaviours of procurement practitioners	· Obeyed the procedures and contracts strictly	· Flexibility, proactivity, and creativity of procurement practitioners

Table 33 Similarities in CIs and anticipated characteristics of sustainability identities

5.2 Differences

5.2.1 Contextual differences

Table 34 summarises the contextual differences of IO1, IO2, and IO3. As shown in Table 34, although the mandates of all these three organisations covered the social aspect of sustainability, they had different mandates in detail. Accordingly, they had differences in funding sources, key procurement categories, supply base structures,

and power allocation in supply chains. The following paragraphs discuss these differences in detail.

As indicated in Table 34, IO1's mandates were providing services to other IO organisations and "partners" (clients). Part of these services included humanitarian issues, which were related to demanding requirements on delivery time. Being a service provider, IO1 procured according to the requirements of its donors/clients. Thus, its procurement categories were very diverse and based on projects defined by its donors/clients. Since 50-70% of IO1's procurement were services, it was very difficult for IO1 to define unified sustainability criteria during the tendering and contracting processes. IO1 was self-funded through its services to its donors and "partners" (clients). Hence, IO1 had the needs for promoting its images as a service provider. In addition, donors and clients had the greatest power in IO1's supply chains. While in the IO2 and IO3 cases, the donors and clients might not necessarily have such great power.

Key constructs	IO1	IO2	IO3
Mandates	Providing services to other IO organisations and "partners."	Family planning	Humanitarian issues Poverty prevention
Funding sources	Self-funded through services	Regulars funds from by governments, NGOs, and World Bank	Regulars funds from by governments, NGOs, and World Bank
Key procurement categories	Services (50-70%) Project-based, diverse	Health products	Services (70%+)
Supply base	A large number of suppliers, which were diverse with different country contexts	Limited number of suppliers occupied majority of the procurement value	A large number of suppliers, which were diverse with different country contexts
Supply chain power allocation	Donors and clients had the greatest power	IO2 had great buying power towards certain suppliers	Governments and donors had the greatest power
Procurement responsibility	Procurement was conducted by both the headquarters and the regional/country offices	The majority of procurement was conducted by the headquarters	The majority of procurement was conducted by the regional/country offices. The headquarters only provided guidance and supports.

Table 34 Contextual differences between the three focal organisations

IO2's mandates were about family planning. Therefore, humanitarian issues didn't occupy a big amount in its procurement in comparison to IO1 and IO3. It procured mainly health products. In comparison to the services procured by IO1 and IO3, it was easier to define sustainability criteria for health products. IO2 had a much smaller amount of suppliers in comparison to IO1 and IO3, with a limited number of suppliers

occupying the majority of the procurement value. Therefore, IO2 had great procurement power with certain suppliers. IO2 were regularly funded by governments, NGOs, and World Bank. Therefore, unlike IO1, IO2 didn't have the huge needs for promoting its organisational image to attract funding or obtaining orders. In short, in comparison to IO1, IO2 has a more stable supply chain and bigger power its supply chains.

IO3's mandates were about humanitarian and poverty prevention. Therefore, its procurement was project-based and normally under great time pressure (similar to parts of IO1's procurement). Similar as IO2, IO3 was regularly funded by governments, NGOs, and World Bank. Therefore, IO3 didn't have such huge needs for promoting its organisational image like IO1 did. Over 70% of IO3's procurement were services. Hence, compared to IO2, IO3 had more difficulties in defining unified sustainability criteria during the tendering and contracting processes. Notably, in comparison to IO1 and IO2, IO3's headquarters only procured directly a relatively smaller proportion of its total procurement. The main responsibilities for IO3's headquarter were providing guidance and technical supports to IO3 regional/country offices. The majority of the IO3's procurement was conducted by its regional/country offices separately. Therefore, IO3's procurement was highly subjected to the country contexts. Meanwhile, IO3 had relative smaller procurement power in comparison to IO2 due to its diverse procurement categories and decentralized procurement responsibilities. The operational contexts of the three focal organisations had great impacts on the characteristics of their core identities. Section 5.2.2 now discusses the differences of core identities in the three cases.

5.2.2 Core identities

The three focal organisations had some similarities in their core identities (refer to Table 33 in Section 5.1.2). However, there also existed some differences. These differences mainly existed in the procurement principles of the focal organisations, which reflected the core values and beliefs of in their procurement practices. As indicated in Table 35, the three focal organisations had some interesting differences in the phrasing of their procurement principles. First, IO1 included the interests of its "partners" (clients) in their procurement principles. This reflected its organisational identity as a service provider and its dependence on its "partners." Consequently, IO1

emphasised its relationships with its partners (clients), whereas it generally kept its suppliers at arm’s-length. Second, IO2 mentioned, “considering all relevant factors, including costs and benefits to IO2” in its procurement principle of “best value for money.” By doing so, IO2 provided rooms for the total cost consideration and the inclusion of sustainability criteria.

Key constructs	IO1	IO2	IO3
Procurement principles (key values in procurement)	<ol style="list-style-type: none"> 1) Best value for money; 2) Fairness, integrity, and transparency; 3) Effective competition; 4) The best interest of IO1 and its “partners”. 	<ol style="list-style-type: none"> 1) Best value for money considering all relevant factors, including costs and benefits to IO2; 2) Fairness, integrity, and transparency; 3) Open and effective international competition; 4) The interest of IO2 	<ol style="list-style-type: none"> 1) best value for money; 2) fairness, integrity, and transparency; 3) effective international competition; 4) in the best interest of IO3
Relational orientation	<ol style="list-style-type: none"> 1) Emphasised partnership with donors/clients 2) Suppliers as “vendors”, arm’s-length supplier relationships 	<ol style="list-style-type: none"> 1) Partnership approaches with various stakeholders, including key suppliers 	<ol style="list-style-type: none"> 1) Emphasis on relationships with governments and donors 2) Contact-based relationships with suppliers

Table 35 Core identities of the three focal organisations

In terms of relationship orientation, all the three focal organisations highlighted their relationship with governments, donors, or clients. But these organisations were different in their ways of dealing with their suppliers. Among the three organisations, IO1 had the longest relational distances with its suppliers and generally kept arm’s-length relationships with its suppliers. This was partly because of its project-based procurement and unstable supply chain structure. IO2 was the only one among these three organisations which adopted a partnership approach with its key suppliers. IO2’s partnership approach with its major suppliers was partly associated with its limited number of suppliers, interdependence with its key suppliers, and relatively stable supply chain structure.

5.2.3 Anticipated characteristics of sustainability identities

Table 36 summarises the anticipated characteristics of sustainability identities in the three cases. The Data in Table 36 uncovered that in IO1 and IO3, procurement policymakers, procurement practitioners, and suppliers had different expectations about sustainable procurement. In comparison to IO1 and IO3, IO2’s procurement

policy makers, procurement practitioners, and suppliers had similar expectations about sustainable procurement. This section now discusses the differences in detail.

IO1's procurement policymakers intended to use sustainable procurement to enhance IO1's impacts and image and promote its advisory services. Actually, even among the three procurement policymakers, there were different expectations about sustainable procurement. For example, one procurement policymaker thought humanitarian issues should have higher priorities than sustainable procurement. IO1 procurement practitioners and suppliers had similar expectations about the characteristics of sustainability identities. They related sustainability with potential increased costs and close buyer-supplier relationships. Notably, since IO1 procured worldwide and a great amount of its procurement came from the developing countries, it was not feasible for IO1 to discuss sustainability issues with all the suppliers. There were some potential conflicts between the characteristics of the core identity (e.g. emphasizing cost efficiency, transparency, fairness and competition) and the sustainability identity (e.g. potential cost increases, closer relationships with the suppliers, and flexibility) anticipated by IO1's procurement practitioners and suppliers.

Data resources	IO1	IO2	IO3
Procurement policy makers	<ul style="list-style-type: none"> · To increase IO1's impacts and image; · Higher priorities of humanitarian issues; · Open communications and cooperation with suppliers without breaking the line. 	<ul style="list-style-type: none"> · Focus on the environmental aspect; · Inclusive and gradual approach to engaging suppliers on realistic targets; · Economic returns/savings for suppliers. 	<ul style="list-style-type: none"> · Procurement practitioners to take initiatives; dialogues with the private sector; initiate innovative; potential price increase
Procurement practitioners	<ul style="list-style-type: none"> · Sustainability was often thought expensive; importance of supplier assessments, communications, and cooperation with suppliers 	<ul style="list-style-type: none"> · Focus on the environmental aspect; · Inclusive and gradual approach to engaging suppliers on realistic targets; · Economic returns/savings for suppliers 	<ul style="list-style-type: none"> · Well accepted environmental criteria to ensure fairness, transparency, and competition; sustainability to be included in the formalizations
Suppliers	<ul style="list-style-type: none"> · Sustainability of business, closer relationships, sustainability premium 	<ul style="list-style-type: none"> · Sustainability of business, reasonable pricing system/ policy; · Effective forecasting; explicit communications; clear long-term agreements; 	<ul style="list-style-type: none"> · Sustainability of business; · Feasibility and innovation

		· Effective monitoring and reporting; “green procurement” system	
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Table 36 Anticipated characteristics of sustainability identities

In comparison to IO1 and IO3, IO2 had a higher consistency among its procurement policymakers, procurement practitioners, and suppliers in terms of anticipated characteristics of sustainability identity. Both IO2 procurement policymakers and procurement practitioners realized they should take an inclusive and gradual approach to sustainable procurement. This approach allowed the identity fluidity and ambivalence during the transit period of introducing sustainable procurement into their daily procurement practices. In consideration of suppliers’ emphasis on the economic aspect of sustainability, IO2 sought for economic returns or savings for suppliers during their sustainable procurement. IO2’s core identity included total cost consideration in their procurement principles of cost effectiveness. IO2’s adopted partnership approaches with its key suppliers in their traditional procurement practices already. Therefore, in comparison to IO1 and IO3, IO2 had fewer identity conflicts between its sustainability identities and its core identities. In terms of identity orientation, similar like IO1, IO3 had some inconsistency in the anticipated characteristics of sustainability identity. Both of the IO3 procurement policymakers and suppliers realized the needs for the proactivity, feasibility and innovative approaches of procurement practitioners in contacting supply chain stakeholders. These anticipated characteristics had potential conflicts with some characteristics in IO3’s core identities (for example, fairness, transparency, strict rules and procedures). The IO3 procurement practitioners insisted there should be accepted environmental criteria to ensure fairness, transparency, and competition. They also insisted that sustainability should be included in the procurement principles, procedures, tendering processes, and contracting documents.

Table 37 summarises the potential conflicts or matches between the characteristics of the core identities and anticipated characteristics of sustainability identities in the three cases. As Indicated in Table 37, IO1 and IO3 had more conflicts between their core identities and their sustainability identities. Some of these potential conflicts/matches were at least partly associated the focal organisations’ operational context and supply chain structures. First, all the three focal organisations were in the public sector. Thus,

they all emphasised fairness, integrity, and transparency in their procurement practices. Sustainable/green procurement meant adding new criteria in their procurement from suppliers. In the IO1 and IO3 cases, the focal organisations conducted project-based procurement from a diverse and dynamic supply base. Furthermore, a majority of their procurement were services. Particularly, over 70% of IO3's procurement were services. Therefore, it was really challenging for these two organisations, especially IO3, to establish well-accepted sustainability-related standards to ensure the fairness, integrity, and transparency in their sustainable procurement. Furthermore, the suppliers of IO1 and IO3 were from countries all over the world, and the majority of these suppliers were in the developing countries where sustainability was still in its infancy. Hence, adding sustainability-related criteria into the tendering processes might prevent some suppliers, especially those from the developing countries, from entering the competition. In comparison to these two organisations, IO2 had a smaller number of suppliers and a smaller number of procurement categories. The majority of its procurement were health products, of which there were a limited number of suppliers. Thus, it is feasible for IO2 to establish environmental standards for its procurement without breaking the procurement principles of fairness, integrity, transparency and competition. Second, IO1 and IO3 had a dynamic, project-based supply base, which led to their arm's-length relationships with the majority of their suppliers. However, sustainable procurement required closer supplier relationships. In comparison to those of IO1 and IO3, IO2's supply base was more stable, which allowed IO2 establish partnerships with its major suppliers.

Constructs	IO1	IO2	IO3
Procurement principles (key values in procurement)	<p><i>Potential conflicts:</i> <u>Core identity:</u> best value for money</p> <p><u>Sustainability identity:</u> sustainability was expensive. The potential price increases from suppliers.</p>	<p><i>Potential match:</i> <u>Core identity:</u> best value for money considering all relevant factors, including costs and benefits <u>Sustainability identity:</u> environmental criteria as improved products standards; total cost consideration; economic returns or savings for suppliers</p>	<p><i>Potential conflicts:</i> <u>Core identity:</u> best value for money</p> <p><u>Sustainability identity:</u> sustainability was expensive. Potential price increases from suppliers</p>
	<p><i>Potential conflicts:</i> <u>Core identity:</u> fairness, integrity, and transparency <u>Sustainability identity:</u> sustainability meant new criteria in procurement contracts, which might not be met by all the suppliers. Thus, the fairness, integrity and transparency of the IO1 procurement practices might be affected.</p>	<p><i>Potential match of some categories:</i> <u>Core identity:</u> fairness, integrity, and transparency; <u>Sustainability identity:</u> sustainability meant new criteria in procurement contracts. Since IO2 had a smaller number of suppliers, it might be possible to include environmental criteria to all the suppliers, at least the suppliers in selected categories</p>	<p><i>Potential conflicts:</i> <u>Core identity:</u> fairness, integrity, and transparency <u>Sustainability identity:</u> sustainability means new criteria in procurement contracts, which might not be met by all the suppliers. It was also hard to define well-accepted standards. Thus, the fairness, integrity and transparency of the IO1 procurement practices might be affected</p>
	<p><i>Potential conflicts:</i> <u>Core identity:</u> effective competition</p> <p><u>Sustainability identity:</u> suppliers not meeting sustainability criteria might not be able to enter competition</p>	<p><i>Potential match for selected categories:</i> <u>Core identity:</u> open and effective international competition; <u>Sustainability identity:</u> it was possible to facilitate competitions among a smaller number of suppliers</p>	<p><i>Potential conflicts:</i> <u>Core identity:</u> effective competition</p> <p><u>Sustainability identity:</u> suppliers not meeting sustainability criteria might not be able to enter competition</p>
Relational orientation	<p><i>Potential conflicts:</i> <u>Core identity:</u> emphasis on relationships with clients and donors; suppliers as “vendors”, arm’s-length supplier relationships <u>Sustainability identity:</u> inclusion of sustainability criteria relied on the attitudes of donors/clients; importance of supplier assessments, communications, and cooperation</p>	<p><i>Potential match:</i> <u>Core identity:</u> partnership approach with various stakeholders, including key suppliers</p> <p><u>Sustainability identity:</u> a gradual and inclusive approach to suppliers</p>	<p><i>Potential conflicts:</i> <u>Core identity:</u> emphasis on relationships with governments and donors; contact-based relationships with suppliers <u>Sustainability identity:</u> inclusion of sustainability criteria relied on the attitude of governments and donors; needs of proactivity and innovation in influencing external stakeholders</p>
Behaviours of procurement practitioners	<p><i>Potential conflicts:</i> <u>Core identity:</u> obeyed the procedures and contracts strictly <u>Sustainability identity:</u> flexibility, proactivity, and creativity of procurement practitioners in contacting external stakeholders (especially donors, clients and suppliers)</p>	<p><i>Potential conflicts:</i> <u>Core identity:</u> obeyed the procedures and contracts strictly <u>Sustainability identity:</u> flexibility, proactivity, and creativity of procurement practitioners in contacting external stakeholders (especially donors, clients and suppliers)</p>	<p><i>Potential conflicts:</i> <u>Core identity:</u> obeyed the procedures and contracts strictly <u>Sustainability identity:</u> flexibility, proactivity, and creativity of procurement practitioners in contacting external stakeholders (especially donors, clients and suppliers)</p>

Table 37 Potential conflicts between core identities and anticipated sustainability identities

5.2.4 Identity regulations and communications

Key constructs	IO1	IO2	IO3
Formal expression and actual meaning	<ul style="list-style-type: none"> · “Sustainable procurement”; · Including the 3 pillars of sustainability 	<ul style="list-style-type: none"> · “Green procurement” · Focusing on the environmental aspect 	<ul style="list-style-type: none"> · “Sustainable procurement.” · Focusing on the environmental aspect
Consistency in the documents, publications, and website	<ul style="list-style-type: none"> · Not consistent · A lot of materials promoting sustainable procurement on its website · A lack of the supporting working plans and formalizations 	<ul style="list-style-type: none"> · Consistent in communications: clear goal with 5-year plan/strategy, supported by the necessary formalizations 	<ul style="list-style-type: none"> · Not consistent · Few materials related to sustainable procurement in its website · A lack of the supporting working plans and formalizations
Consistency in anticipated characteristics of sustainability identity	<ul style="list-style-type: none"> · Not consistent · Procurement policymakers’ intention of using sustainable procurement as a tool to promote IO1’s organisational image and promote its services 	<ul style="list-style-type: none"> · Consistent 	<ul style="list-style-type: none"> · Not consistent · Procurement practitioner’s desire for well-accepted environmental criteria
Formalizations	<ul style="list-style-type: none"> · A lack of the supporting formalizations 	<ul style="list-style-type: none"> · The supporting formalization: sustainability included in the procurement principles, the procurement manual, the quality assurance documents, and the contracts (for a selected category, Category B) 	<ul style="list-style-type: none"> · A Lack of the supporting formalizations
Organisational structure	<ul style="list-style-type: none"> · The low profiles of the sustainability team and procurement practitioners 	<ul style="list-style-type: none"> · Organisational structural support, sustainability integrated into the quality assurance team 	<ul style="list-style-type: none"> · Absence of the sustainability team leader · Low profile of procurement practitioners
Internal Communications	<ul style="list-style-type: none"> · Sustainable procurement was communicated to procurement practitioners in the headquarters · Insufficient communications with procurement practitioners in the country/regional offices 	<ul style="list-style-type: none"> · Green procurement was communicated to procurement practitioners in the headquarters and the country/regional offices · Communication gap between the headquarters and the country officers 	<ul style="list-style-type: none"> · Communications about sustainability had been paused for a certain period · Great communication gap
Communication to suppliers	<ul style="list-style-type: none"> · No discussion with suppliers 	<ul style="list-style-type: none"> · Supplier collaboration model based on segmentation analysis · Communications to suppliers in Category B. Not included procurement practitioners and suppliers in other categories except Category B 	<ul style="list-style-type: none"> · No discussion to suppliers

Table 38 Identity regulations and communications of the focal organisations

Table 38 presents the identity regulations and communications of the focal organisations. There were considerable inconsistencies in IO1’s communications

about sustainable procurement in its documents, publications, and website. In detail, although IO1 declared its commitment to and ambition of sustainable procurement and promoted its sustainable procurement efforts in its websites, it didn't define explicit sustainable procurement strategies and action plans. Meanwhile, there was also a lack of the necessary formalization supporting sustainable procurement: sustainability was not integrated into the procurement principles, procurement procedures, and tendering documents. In terms of the organisational structure, the sustainability team managers had lower management levels than the other team managers in the procurement department. The low management levels of the sustainability team managers implied that sustainability was not a priority in IO1's procurement. Regarding communications, IO1 seldom contacted procurement practitioners in the regional/country offices and had no communication with the suppliers about the sustainable procurement issues. In short, IO1's identity regulation and communication approaches echoed IO1's procurement policymakers' anticipation on sustainable procurement (refer to Table 36 in Section 5.2.3). Sustainable procurement was just a marketing tool to enhance IO1's organisational image and promote its procurement advisory services. In comparison to IO1, IO2 had greater consistencies in communicating its sustainability identity. IO2 used the term "green procurement" on its website, publications, documents and daily communications to define its focus on the environmental aspect of sustainability. IO2 defined its explicit goals on green procurement, accompanied by a concrete 5-year green procurement policy. IO2 established the necessary formalizations to support its green procurement goals and policy, including integrating sustainability into its procurement principles, procedures, quality control system, and tendering documents/contracts for a selected category, i.e., Category B. IO2 also had an organisational structure that supported green procurement. The quality control committee was responsible for green procurement, integrating green procurement as parts of the quality control system. In terms of communications to internal and external stakeholders, IO2 took an inclusive and gradually approach based on its thorough supply chain segmentation analysis. IO2 developed a supplier collaboration model and segmented its suppliers to different categories according to their environmental impacts and improvement potentials. It started green procurement implementation with the highest environmental impacts and the highest improvement potential. IO2 involved these suppliers in its green procurement implementation by inquiring the suppliers' environmental performance,

conducting supplier workshops, having regular conversations with suppliers, and including environmental criteria into the tendering documents and contracts. To sum up, IO2 took a proactive and structured approach to regulating and communicating SI.

IO3 used the expression “sustainable procurement” but focused on the environmental aspect of sustainability when it used this expression. In comparison to IO1 and IO2, IO3 had little information on sustainable procurement in its website. In addition, there were limited documents, policies, and supporting formalizations about sustainable procurement. Actually, the communications to procurement practitioners and suppliers on sustainable procurement issues had been paused for quite some time in IO3 during the researcher’s data collection. Moreover, the position for IO3’s sustainability team leader had been vacant for one year. There was no communication to the suppliers about the sustainability issues, either. In short, sustainable procurement efforts seemed to be minimized in IO3.

5.2.5 Perceived sustainability-related identity

Table 39 presents the perceived sustainability identities in the three cases from the perspectives of procurement policymakers, procurement practitioners, and suppliers. As indicated in Table 39, although one policy maker perceived that IO1 was committed to sustainable procurement and was a leader in the field of sustainable procurement in the public sector, the majority of the IO1 interviewees perceived that IO1 was still in its early stage of sustainable procurement. Furthermore, some procurement practitioners and suppliers even thought that IO1 used sustainable procurement to increase its organisational image and just took basic steps in sustainable procurement.

Data resources	IO1	IO2	IO3
Procurement policy makers	Different opinions: a leader in sustainable procurement vs. an early stage in sustainable procurement	Gradual progress according to Green Procurement strategy and work plan	Slow progress, not much changes since 1995
Procurement practitioners	Early stage in sustainable procurement; basic steps to promote organisational image	Category B: gradual progress according to Green Procurement Strategy and work plan Other categories: no projects	Early stage in sustainable procurement, implementation suspended for a while
Suppliers	Early stage in sustainable procurement; used sustainable procurement to “look nice” in website	Category B: IO2 was serious about green procurement Other categories: no projects	Early stage in sustainable procurement; Tick-box approach

Table 39 Perceived sustainability-related identity in the three cases

In IO2, both procurement policymakers and procurement practitioners in Category B thought that IO2 was gradually implementing green procurement according to its 5-year green procurement strategies. Accordingly, the suppliers in Category B thought that IO2 was serious with its green procurement. According to IO2's 5-year green procurement strategy, IO2 didn't engage procurement practitioners and suppliers in its green procurement practices. Accordingly, these procurement practitioners and suppliers didn't think that IO2 was conducting green procurement practices.

In IO3, both procurement policymakers and procurement practitioners thought that sustainable procurement had been suspended in IO3 for a considerable period. Accordingly, the suppliers thought IO3's sustainable procurement was in its early stage. Limited actions had been taken on sustainable procurement. For example, suppliers were asked to "tick the box" in the information inquiring part of the tendering processes⁶. However, this kind of inquiry had no weight on IO3's contract awarding decisions.

Data resources	IO1	IO2	IO3
Procurement policy makers	Salient for one interviewee Not salient for two interviewees	Salient	Not salient
Procurement practitioners	Not salient	Category B: salient Other categories: not salient	Not salient
Suppliers	Not salient	Category B: salient Other categories: not salient	No salient

Table 40 Salience of sustainability identities to each interviewee category in the three cases

According to the perceived identities of the interviewees in sustainable procurement implementation, Table 40 summarises the salience of the sustainability identity to each interviewee category in the three cases. The salience of SIs means the extent that the internal and external stakeholders perceived the focal organisations' commitment to and efforts towards their sustainability implementation.

⁶ In the BIO system, the majority of the procurement were conducted by the tendering process. Suppliers could get the tendering notice of the BIO system on its on-line procurement platform or via its tendering notice services. The suppliers could submit their tendering interests via the on-line platform for the products or services they provided by providing the information required by the BIO on-line procurement system. Some information required were crucial for the BIO procurement practitioners to make the procurement decisions, while some information were just from data collection purposes.

5.2.6 Function/dysfunction of identity salience

Table 41 compares the function/dysfunction of identity salience sustainable procurement. In IO1, the sustainability identity was not salient to the majority of the interviewees. The central issues related to the low salience of the sustainability identity were the fears and reluctance of procurement practitioners (even some of the procurement policy makers) in contacting external stakeholders (e.g. donors, clients, and suppliers) for sustainability issues. Consequently, the suppliers didn't perceive a salient sustainability identity and had low proactivity and motivation in sustainability implementation. Furthermore, since there were considerable gaps between the actually perceived identity (an early stage in sustainable procurement) and IO1's intended identity (a leader in sustainable procurement), some procurement practitioners and suppliers felt that the organisation used sustainable procurement as a marketing tool and felt disappointed. In detail, some procurement practitioners related these identity gaps to the poor leadership of the organisation and felt frustrated. Some suppliers expected a price increase in the name of "sustainability premium."

Data resources	IO1	IO2	IO3
Procurement policy makers	<ul style="list-style-type: none"> Needs for procurement policies to protect contacts with suppliers Disappointment, frustration 	<ul style="list-style-type: none"> Took gradual but proactive actions in green procurement 	<ul style="list-style-type: none"> Not many actions were taken in sustainable procurement
Procurement practitioners	<ul style="list-style-type: none"> Needs for legal framework to protect procurement practitioners' contacts with suppliers in sustainable procurement; Fears and reluctance to contact donors and suppliers for sustainable procurement issues; low motivation, flexibility, and innovation; disappointment 	<ul style="list-style-type: none"> Procurement practitioners in Category B: supports to and collaboration with suppliers Procurement practitioners in other categories: low motivation 	<ul style="list-style-type: none"> Procurement practitioners' lack of motivation, flexibility and innovation Procurement practitioners thought humanitarian issues had higher priorities than environmental sustainability
Suppliers	<ul style="list-style-type: none"> Low proactivity, no commitments. Intention to increase prices and ask for a sustainability premium, disappointment 	<ul style="list-style-type: none"> Suppliers in Category B: motivation, inter-organisational learning; investment and commitment Suppliers in other categories: low proactivity, no commitments, and investment, potential to increase prices 	<ul style="list-style-type: none"> Low proactivity, no commitments and investment, potential to increase prices Felt being constrained by strict procedures of IO3

Table 41 Function/dysfunction of identity salience

In IO2, the sustainability identity was salient to the procurement policymakers, the procurement practitioners in Category B, and suppliers in category B. Consequently, procurement practitioners in charge of category B were well aware of IO2's goal for

green procurement and contacted their responsible suppliers proactively for green procurement issues. They provided the suppliers with various supports that the suppliers needed during IO2's green procurement implementation. The suppliers in Category B also perceived that IO2 had a salient sustainability identity. In response to their perception of IO2's commitment to green procurement, the suppliers in Category B were committed to IO2's green procurement practices by meeting IO2's environmental requirement, making relevant improvements related to environmental issues, and making the necessary investment needed. Meanwhile, the Chinese suppliers in Category B intended to establish an inter-organisational learning network to cope with IO2's green procurement requirement. In comparison to the procurement practitioners and suppliers in Category B, the procurement practitioners and suppliers in the other categories didn't perceive that IO2 had a salient sustainability identity. Therefore, these procurement practitioners had low motivation and proactivity to contact their responsible suppliers for green procurement issues. The suppliers in other categories also had low motivation to contact IO2 proactively for environmental issues. Some suppliers even expected to supply IO2 environmentally-friendly products with increased prices.

In IO3, none of the interviewed procurement policymakers, procurement practitioners and suppliers perceived that IO3 had a salient sustainability identity. Therefore, IO3 procurement practitioners stuck to the strict procurement procedures and relied on the procurement criteria defined by the donors/governments. They had great reluctance to contact the donors proactively for including environmental criteria into the tendering/contracting documents to the suppliers. Without perceiving the salience of IO3's sustainability identity, IO3's suppliers also had low motivation and proactivity to contact IO3 for environmental issues.

5.3 Typologies

5.3.1 Focal organisations: identity regulations and communications

Table 42 consolidates the identity conflicts/matches and the corresponding approaches that the three focal organisations adopted in communicating and regulating their sustainability identities. Notably, although IO1 and IO3 had many similarities in their supply chain structures and identity conflicts during sustainability implementation, they had different purposes for sustainable procurement

implementation. Thus, they adopted difference approaches to regulating and communicating their sustainability identities. With the purpose of increasing its organisational image and marketing its advisory services, IO1 highlighted its expertise in sustainable procurement in its websites and declared its commitment to sustainable procurement. However, they only took some basic steps to sustainable procurement and seldom communicated and contacted their suppliers or other external stakeholders (for example, clients and donors) for sustainable procurement issues. In IO3 didn't make so many communications in its websites as IO1 did. Sustainable procurement paused in IO3 for a certain period time. Only basic steps were taken to response to the trend of and appeal for sustainable procurement within the BIO system.

Items	Window dresser (IO1)	Leader (IO2)	Resistor (IO3)
Conflicts/match between the core identity and the sustainability identity	<ul style="list-style-type: none"> Conflicts 	<ul style="list-style-type: none"> Matches + conflicts 	<ul style="list-style-type: none"> Conflicts
Purpose for sustainable procurement	<ul style="list-style-type: none"> To increase its organisational image and market its advisory services 	<ul style="list-style-type: none"> To implement green procurement gradually 	<ul style="list-style-type: none"> Facing the pressure of the BIO system
Shared perceptions/beliefs	<ul style="list-style-type: none"> Not consistent among stakeholders PM's intention to use sustainable procurement to increase IO1's organisational image and market its services 	<ul style="list-style-type: none"> Similar anticipated characteristics of sustainability identities 	<ul style="list-style-type: none"> Not consistent among stakeholders Procurement practitioners' strict accordance with procedures and desire for well-accepted standards
Identity regulation	<ul style="list-style-type: none"> A lack of concrete policies, strategies and action plans; A lack of the supporting formalizations 	<ul style="list-style-type: none"> A shared vision among the policy makers; A gradual and inclusive approach Defined concrete policies, strategies and action plans; Established the supporting formalizations and organisational structures 	<ul style="list-style-type: none"> A lack of concrete policies, strategies and action plans; A lack of the supporting formalizations; Pause of sustainable procurement implementation
Identity communication	<ul style="list-style-type: none"> Communications in websites Focused on clients/donors Few communications to the procurement practitioners in country offices and the suppliers Communication Inconsistency 	<ul style="list-style-type: none"> Communications to procurement practitioners and suppliers in the selected categories Consistencies in communications 	<ul style="list-style-type: none"> Limited communications on the website Few communications with the internal and external stakeholders

Table 42 Identity conflicts/matches and the corresponding actions

It is worth mentioning that IO2 also had some potential identity conflicts in its green procurement implementation, especially for the procurement conducted out of its country-based offices. This part of procurement was also diverse, similar as those in IO1 and IO3. However, unlike IO1, which announced its strong expertise in sustainable procurement, or IO3, which minimized its effort in sustainable procurement, IO2 adopted a gradual approach to integrating its green procurement identity into its CI. Based on the thorough segmentation analysis on its supply chains, it started green procurement with selected procurement categories, in which there were less potential conflicts between its sustainability identity and its core identity. The fluidity of IO2's sustainability identity enabled IO2 to manage the potential identity conflicts during its green procurement and provided its internal and external stakeholders time to cope with the changes brought by green procurement implementation.

Efforts towards sustainability implementation	Hi	Silent executor	Leader
		<ul style="list-style-type: none"> • Limited efforts in communicating sustainability identity to internal and external stakeholders • Efforts in defining supporting policies, strategies, formalization, and action plans • Sustainability implementation in supply chains 	<ul style="list-style-type: none"> • Strategic communication to internal and external stakeholders (including suppliers) • Proactivity in defining supporting policies, strategies, formalization, and action plans • Sustainability implementation in supply chains
		Resistor	Window dresser
Lo		<ul style="list-style-type: none"> • Limited efforts in communicating sustainability identity to internal and external stakeholders • No/limited efforts in defining supporting policies, strategies, formalization, and action plans • Little engagement of internal and external stakeholders (suppliers) • Little sustainability implementation in supply chains 	<ul style="list-style-type: none"> • Great efforts in communicating sustainability identity to the public and clients • No/limited efforts in defining supporting policies, strategies, formalization, and action plans • Little engagement of internal and external stakeholders (suppliers) • Little sustainability implementation in supply chains
		Lo	Hi
		Efforts in identity communication	

Figure 22 Typology of identity communications and regulations in sustainable supply

Based on the findings of the three cases, Figure 22 presents a typology of identity communication and regulation strategies that focal organisations take in implementing sustainability in their supply chains. It is constructed as a 2x2 matrix and adopts

identity communication and sustainability implementation as its axis. Data from the three cases found four types of identity communication and regulation approaches for the focal organisations in their sustainability implementation in supply chains: leader (IO2's approach in category B), silent executor (IO2's approach in other categories except category B), window dresser (IO1), and resistor (IO3).

Leaders take proactive approaches to communicating their sustainability identities to its internal and external stakeholders. Meanwhile, they take real efforts to implement sustainability in their supply chains. Internally, they define concrete SSCM strategies and work plans, establish supporting formalization to cope with the changes brought by sustainability implementation. Externally, they proactively engage their supply chain stakeholders in their sustainability implementation.

Similar to leaders, silent executors also take considerable efforts to implement sustainability in their supply chains, but their efforts might be limited within the organisations or to a small range of internal/external stakeholders. Meanwhile, they make no or limited communications to their internal and external stakeholders. In turn, the limited communications to stakeholders might constrain their engagement of stakeholders in sustainability implementation.

Like leaders, window dressers also take proactive approaches to communicating their sustainability identities, but mainly to their clients and customers, in the websites and publications. Actually, they take no or limited actual actions in implementing sustainability further in terms of integrating sustainability into their supply chains. They don't take in-depth communications and dialogues with their supply chain stakeholders seriously on sustainability issues. The purpose for them to create a sustainability identity is to promote their organisational images and market their products or services. Besides IO1, many Chinese companies in the preliminary study fell into this category.

Like silent executors, resistors make limited communications about their sustainability identities to their internal and external stakeholders and the public. Meanwhile, they also make limited efforts in sustainability implementation in its supply chains. Internally, they don't define strategies and work plans for sustainable SCM and don't establish necessary formalization to support sustainable SCM. Externally, they seldom

involve supply chain stakeholders in any sustainability-related projects. In short, they minimize their efforts in sustainability implementation in their supply chains. They only take some basic actions to face the pressure from the governments or the external stakeholders. Many Chinese companies in the preliminary study adopt this type of identity regulation and communication strategy in sustainable SCM.

5.3.2 The responses of internal stakeholders

Based on the data from the three cases, Figure 23 provides a typology of the responses of internal stakeholders towards the focal organisations' identity communications and regulations in sustainability implementation in supply chains. It is constructed as a 2x2 matrix and adopts the identification with the organisation and the identification with sustainability as its axis. Data from the three cases found four types of responses to sustainability implementation in supply chains: proactive, resistant, disappointed and disengaged.

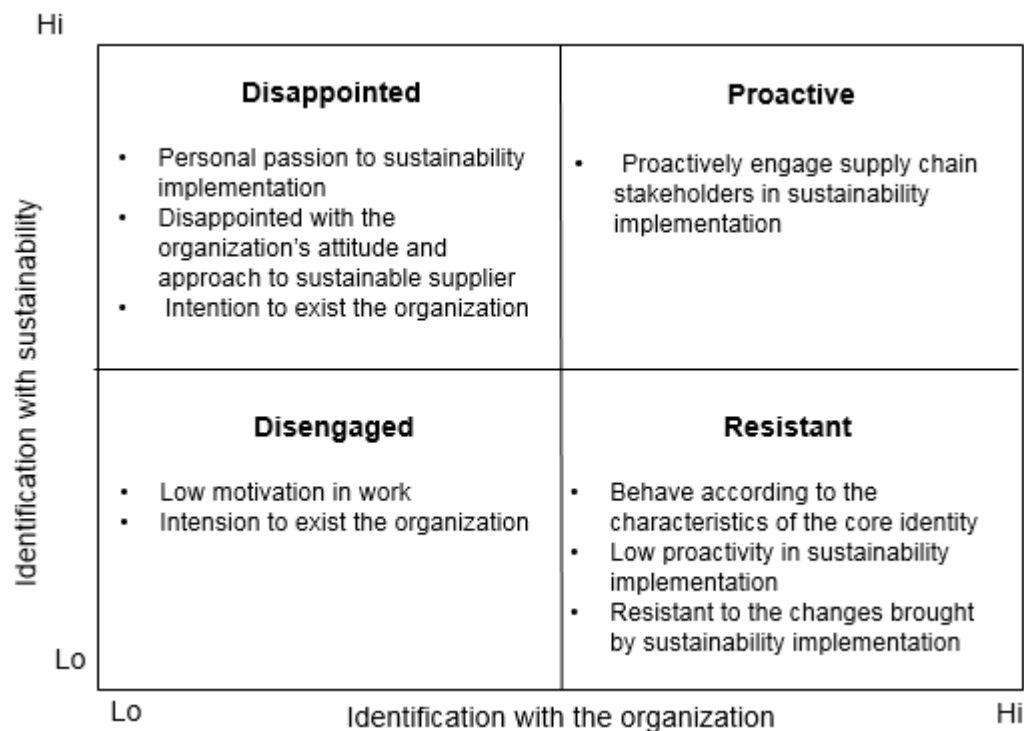


Figure 23 Typology of internal stakeholders' behaviours in response to sustainability implementation

The internal stakeholders who identify highly with organisation and sustainability take a proactive approach to sustainability implementation. They communicate proactively with the supply chain stakeholders for sustainability issues and seek for innovative

solutions. This type of response was found in the reaction of the IO2 procurement practitioners responsible for category B.

The internal stakeholders who identify highly with the organisation but dis-identify with the sustainability take a resistant approach in sustainability implementation. They generally perceive identity conflicts between the core identity and the sustainability identity. Since the core identity is salient to them, they behave according to the characteristics of the core identity, whereas resist to make any changes related to a salient sustainability identity. In the IO1 and IO3 cases, most of the procurement practitioners had this type of response to sustainability implementation. As mentioned in Section 5.2.3, there were potential conflicts between the core identities and the sustainability identities. And these procurement practitioners didn't perceive salient sustainability identities of their organisations. Therefore, they had low proactivity or even high resistance in making changes needed by sustainability implementation. For example, these procurement practitioners were afraid to contact suppliers for sustainability issues and make proposals for including sustainability criteria into the tendering and contracting process. They were a lack of feasibility and innovation needed by sustainability implementation.

The internal stakeholders who identify strongly with sustainability would dis-identify with their organisations eventually if they are disappointed with the organisation's approach to communicating and regulating its identities in sustainability implementation. In the IO1 case, some procurement practitioners and procurement policymakers had a passion for sustainability implementation personally. However, they perceived that IO1 just used sustainable procurement to enhance its organisational image and market its advisory services. Therefore, they felt disappointed with IO1's approach in sustainability implementation. This disappointment was extended to the disappointment with the whole organisation and led to their potential psychological exit from the organisation. For example, procurement practitioners expressed their intention to leave the organisation if they found better work opportunities.

The internal stakeholders who dis-identify strongly with their organisations are disengaged in any projects or activities conducted by the organisation, including sustainability implementation. For example, during the researcher's data collection,

IO1 was dramatically cutting down its number of employees. Some procurement practitioners were disappointed with the management and leadership styles of the organisation. They showed a considerable psychological exit from the organisation. When they felt that the organisation was just using sustainable procurement as a marketing tool, they related these window-dressing behaviours to top management's poor leadership. Consequently, their disappointment and psychological exit were increased.

5.3.3 The responses of external stakeholders

Based on the data from the three cases, Figure 24 provides a typology of the response of the external stakeholders towards the focal organisations' identity communications and regulations in sustainability implementation in supply chains. It is constructed as a 2x2 matrix and adopts the relational identification and the identification with sustainability as its axis. Data from the three cases found four types of responses to sustainability implementation in supply chains: committed, compliant, passive, and self-benefits seeking.

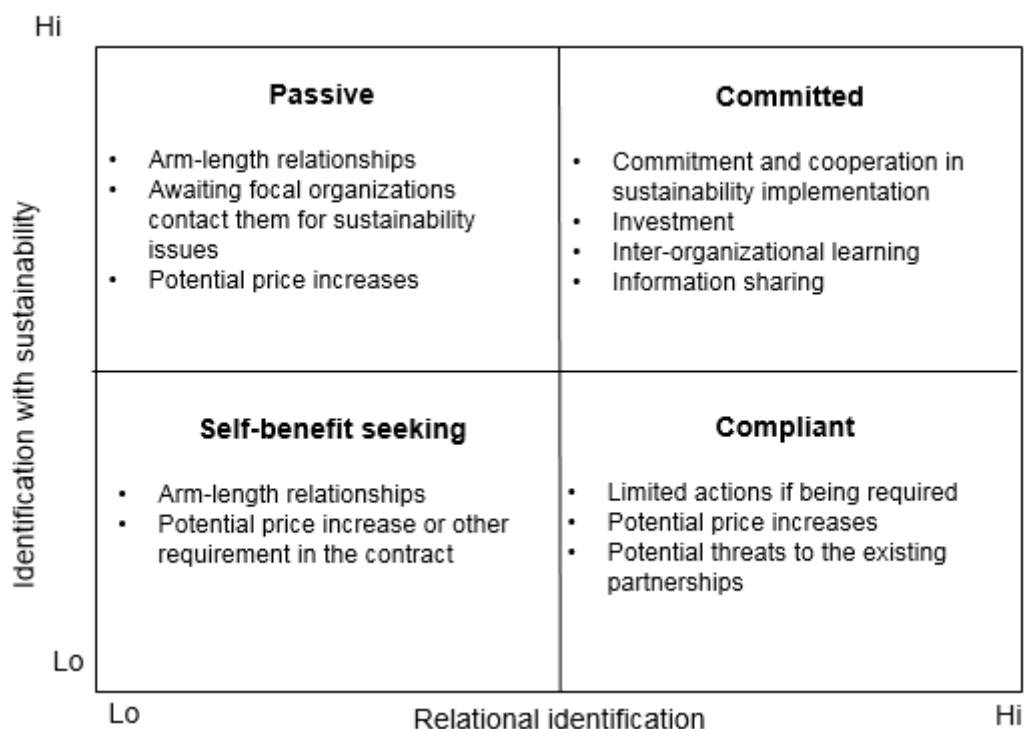


Figure 24 Typology of external stakeholders' (e.g. suppliers') behaviours in response to sustainability implementation

When an external stakeholder perceives both a salient relational identity in their routine business with the focal organisation and a salient sustainability identity, it is committed and cooperative to the focal organisation's sustainability practices. It is willing to make relevant investments, share related information or risks with the focal organisation or other supply chain stakeholders. There will also be improved inter-organisational learning. For example, in IO2, the suppliers in Category B generally keep partnerships with IO2 in its traditional procurement practices. They also perceive a salient sustainability identity from IO2. Therefore, they were very cooperative and even proactive in IO2's green procurement practices. All the suppliers were compliant with IO2's green procurement requirement. Some suppliers made additional investments in sustainable energy system without requirement from IO2. The Chinese suppliers in Category B proposed to establish an inter-organisational learning network on sustainability issues among the Chinese suppliers.

When an external stakeholder perceives a salient relational identity in their routine business with the focal organisation, but a not salient sustainability identity from the focal organisation, it takes a compliant approach to sustainability implementation. If it perceives that the focal organisation just adopts a window-dresser approach to its sustainability implementation, it might only take limited actions to response to the focal organisation's request related to sustainability implementation. Furthermore, they might ask for a price increase. Since it doesn't identify with the window-dresser approach, this dis-identification and distrust might be expanded to the dis-identification and distrust with the other aspects of the relationship. For example, in IO1, some of IO1's long-term agreement suppliers reported IO1 required them to provide some sustainability-related information figures to make IO1 look good on its websites. They provided the information as required, but didn't take any further actions even they had their own sustainability projects. Some of these suppliers even expected a price increase in the name of a sustainability premium from IO1.

When an external stakeholder identifies with sustainability but doesn't perceive a salient relational identity in its routine business with the focal organisation, it takes a passive approach to sustainability implementation. It waits passively until the focal organisation makes some inquiry to them. This is especially true in the public sector, where procurement practices are generally conducted according to strict procedures

and contract terms. Proposing sustainability criteria to the focal organisations means bringing potential revision to the tendering documents and contract terms. Hence, suggesting sustainability criteria limits the competition among the suppliers and is not accepted by the focal organisation. In IO1 and IO3, the majority of the suppliers kept arm’s-length and contract-based relationships with the focal organisations. Even they had their own sustainability projects; they would rather wait for the formal requirement on sustainability issues from IO1 and IO3. These formal requirements are expressed by adding sustainability criteria in the tendering and contracting documents.

When an external stakeholder doesn’t perceive a salient relational identity in its routine business with the focal organisation and doesn’t identify with sustainability, they will take a “seeking for own benefits” approach to the focal organisation’s sustainability implementation. It might expect a price increase in the name of sustainability premium. Many suppliers in IO1 and IO3 fall into this category.

5.3.4 Consolidation

Efforts towards sustainability implementation	Hi	<p style="text-align: center;">Silent executor</p> <p><i>Internal stakeholders</i></p> <ul style="list-style-type: none"> • Resistant <p><i>External stakeholders</i></p> <ul style="list-style-type: none"> • Passive • Self-benefits seeking 	<p style="text-align: center;">Leader</p> <p><i>Internal stakeholders:</i></p> <ul style="list-style-type: none"> • Proactive <p><i>External stakeholders</i></p> <ul style="list-style-type: none"> • Committed
	Lo	<p style="text-align: center;">Resistor</p> <p><i>Internal stakeholders:</i></p> <ul style="list-style-type: none"> • Resistant <p><i>External stakeholders</i></p> <ul style="list-style-type: none"> • Passive • Self-benefits seeking 	<p style="text-align: center;">Window dresser</p> <p><i>Internal stakeholders:</i></p> <ul style="list-style-type: none"> • Resistant, • Disappointed • Disengaged. <p><i>External stakeholders</i></p> <ul style="list-style-type: none"> • Passive • Compliant • Self-benefits seeking
		Lo	Hi
		Efforts in identity communication	

Figure 25 Focal organisations’ identity approaches and stakeholders’ responses

Figure 25 consolidates the focal organisations' identity regulation and communication approaches in their sustainability implementation in their supply chains, as well as the responses of their internal and external stakeholders. As indicated in Figure 25, the leader approach is associated with the proactivity of the internal stakeholder and the commitment of the external stakeholders in sustainability implementation. Both the silent executor approach and the resistor approach are associated with the resistance of the internal stakeholders to sustainability implementation. These two approaches are also related to the external stakeholders' passive behaviours and self-benefit seeking behaviours. Notably, if an organisation adopts the window-dresser approach, it may not only lead to the resistance of its internal and external stakeholders as well as external stakeholders' self-benefit seeking behaviours but also affect these stakeholders' existing organisational identification or relational identification.

5.4 Summary

Conducting a cross-case analysis of the three cases in the public sector, this chapter analyzed how focal organisations manage their identities during their sustainability implementation in their supply chains. It also examined the reactions of their internal stakeholders (procurement policymakers and procurement practitioners) and external stakeholders (e.g. suppliers) towards these identity regulation and communication actions. It discussed the relational and operational outcome of the social identification during sustainability implementation in supply chains. This chapter presents typologies on the focal organisations' identity regulations and communications as well as the responses of internal and external stakeholders. It also provided a consolidation of these typologies to present the association between them.

Overall, the analysis uncovers the existence of dual/multiple identities during sustainability implementation in supply chains. Generally, within the focal organisations, there exists a core identity of the organisation and a sustainability identity. There were potential identity conflicts between the core identity and sustainability identities to some extent in all three cases. These identity conflicts are associated with the operational context of the focal organisations. With different motives towards sustainability implementation, the three focal organisations adopt different approaches in regulating and communicating their sustainability identities. Correspondently, their internal and external stakeholders have different responses,

which has an impact on the inter-organisational relationships in and outcome of sustainability implementation. The conceptual framework in Figure 26 is employed to structure the results from the cross-case analysis. It illustrates the context, process, and outcome of the social identity issues during focal organisations' sustainability implementations in their supply chains.

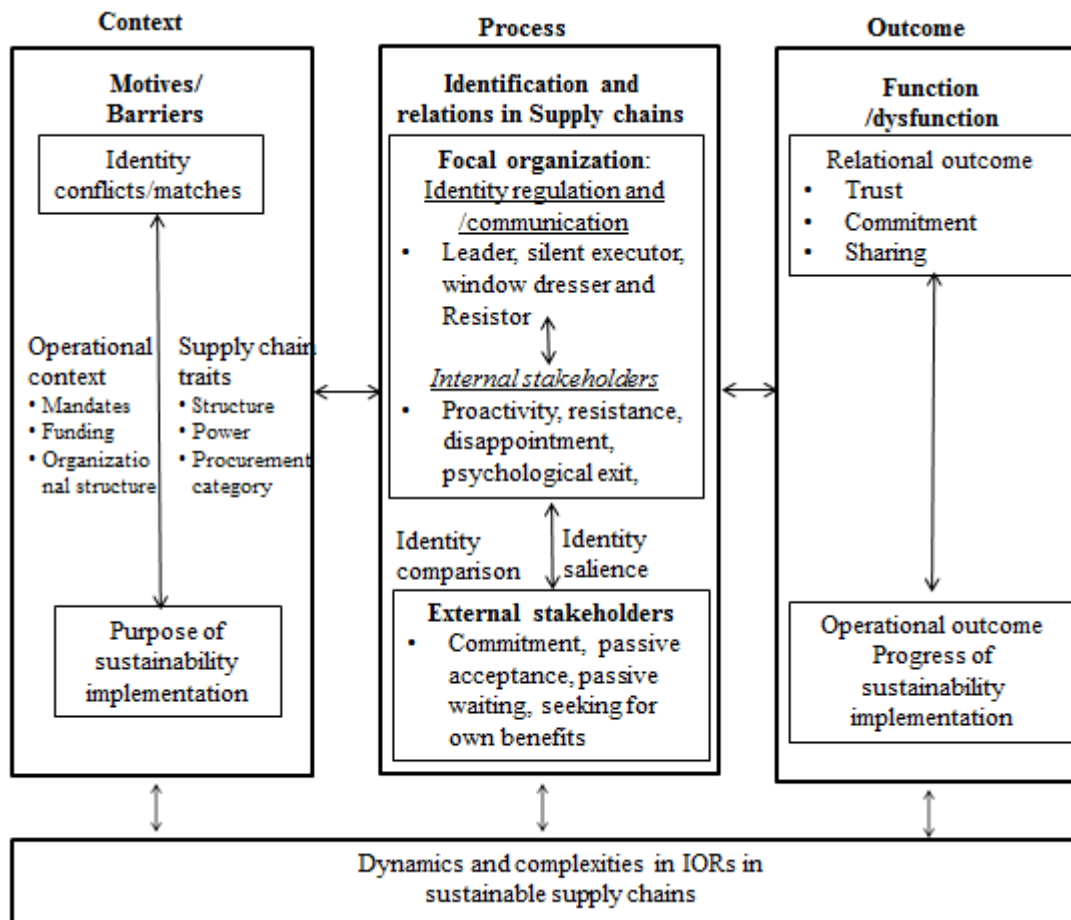


Figure 26 Summary of the cross-case analysis

As indicated in Figure 26, the dynamics and complexities of inter-organisational relationships in sustainable supply are the social contexts of the analysis. These dynamics and complexities are examined via the theoretical lens of the social identity approach. The three columns present the context, process, and outcome of inter-organisational relationships in sustainable supply. The first column demonstrates the motives and barriers for the focal organisations and their supply chain stakeholders to implement sustainability in supply chains. The purpose of sustainability implementation and the potential identity conflicts/matches have great impacts on the focal organisations' approaches to regulating and communicating their identities

during sustainability implementation. They also influence the responses of the internal and external stakeholders to the identity regulations and communications. The purpose of sustainability implementation and the potential identity conflicts/matches are influenced by the operational context and supply chain characteristics of the focal organisations.

The second column presents the process of inter-organisational relationships at the psychological level (social identity) and the operational (including strategic and behavioural) level. As indicated in this volume, there are four types of identity regulation and communication approaches in their sustainability implementation: leader, silent executor, window dresser, and resistor. These approaches influence the identity comparison and perception of both the internal and external stakeholders. Based on their identity comparison and perception, the data from the case studies reveal four types of behaviours internal stakeholders in response to sustainability implementation: proactive, disappointed, resistant and dis-engaged. There are four types of behaviours of external stakeholders (e.g. suppliers) in response sustainability implementation: committed, passive, compliant and self-benefits seeking.

The third column presents the function and dysfunction of inter-organisational relations. At the psychological level, the function and dysfunction are reflected by the levels of proactivity, as commitment, motivation, and sharing. At the operational level, the function and dysfunction are reflected by the progress of sustainability implementation, financial factors (for instance, investment in sustainability or potential price increase), and flexibility to changes.

Notably, the identification issues of the internal and external stakeholder during sustainability implementation not only influence the sustainability implementation but also influence their attitudes and behaviours to the other aspects of the organisation or the relationships. In detail, in the organisation adopting the window dresser approach, if the internal stakeholders perceive that the organisation only use sustainable procurement as a tool to increase its image, they feel disappointed with the organisation or even have psychological exit from the organisation (i.e. intention to leave the organisation) Similarly, if the external stakeholders feel the focal organisation adopt window dresser approach, the image of the organisation is affected. The suppliers think that the focal organisation is not trustworthy.

Consequently, the current partnership is also affected to some extent. The suppliers turn to seek for self-benefits and are not committed to the buyer-supplier relationships.

The analysis reveals that sustainability implementation brings identity tensions (such as the existence of dual/multiple identities, potential identity conflicts) to the organisations and their supply chains. The social identity issues during sustainability implementation influence not only sustainability implementation but also the other aspects of the organisation and its supply chain relationships. These concepts are discussed in depth in Chapter 6, which now provides a reflection on the research by revisiting the propositions, conceptual framework, and research questions.

CHAPTER 6 REFLECTION

This chapter reflects on the research findings. It revisits the propositions, the conceptual framework, and the research questions that the researcher developed in Chapter 2. This chapter is arranged as follows. Based on the research findings and the relevant theories, Section 6.1 accepts or rejects propositions. Section 6.2 revisits the conceptual framework and proposes several amendments. Section 6.3 answers the research questions and discusses social identity issues in the context of sustainability implementation in supply chains. Section 6.4 summarises.

6.1 Revisiting of the propositions

6.1.1 Proposition 1: benefits of a shared identity

Proposition 1 In sustainable SCM, a shared identity would generate trust, commitment, communication, and sharing in supply chains.

Regarding the importance of social identity issues in sustainable SCM, the literature highlights the role of social identity at two levels: an organisational identity at the organisational level and a shared identity at the inter-organisational relationships level. Organisational identities define the context within which leaders respond to sustainability implementation (Colbert & Wheeler, 2002) and shape organisational members' understandings and interpretations of sustainability (Linnenluecke et al., 2009). At the inter-organisational relationships level, some researchers propose the concept of a supply chain identity (Ireland & Web, 2007; Ketchen & Hult, 2011; Min et al., 2008). They regard a supply chain identity as a "valuable, rare, inimitable and non-substitutable resource within supply chains" (Ketchen & Hult, 2011: P15) and argue that a supply chain identity generates relational capital within supply chains. Chapter 2 draws from theory by proposing that a shared identity would generate commitment, communication, and sharing in sustainable SCM.

The three cases suggest that the social identity issues are complex in sustainable supply. The focal organisations have to deal with two identities in their sustainable supply: core identities and sustainability identities. These two identities might match or mismatch with each other subject to the organisations operating context and the leader's identity regulation and communication approach. The research findings

uncover that with the complexity of identity issues, it may be too ideal to address a supply chain identity in sustainable supply. But both an organisational identity (a shared identity within the organisation) and a shared identity between organisations play an important role in sustainable SCM. IO2's sustainability identity is salient to its procurement policymakers, procurement practitioners, and suppliers in Category B. In other words, they perceive that IO2's commitment to and efforts towards its green procurement implementation. Therefore, these procurement practitioners are proactive in contacting and supporting their responsible suppliers in IO2's green procurement practices. The suppliers are also committed to IO2's green procurement practices. They provide the environmental information required by IO2 and making investments in being compliant with IO2's green procurement compliance (for example, establishing green SCM teams within the companies, improving the existing energy systems and water treatment systems, and seeking for environmentally preferable packaging materials and chemical substitutions).

In comparison to IO2, IO1 and IO3 don't have salient sustainability identities. Consequently, the procurement practitioners are reluctant and even afraid to contact suppliers for sustainable procurement issues, given that they perceive other priorities in their work (such as cost effectiveness, anti-corruption, and humanitarian issues). The absence of a salient sustainability identity is also associated with the low commitment and even self-benefits seeking behaviours of the suppliers. In short, the findings from the case study reveal that an organisation's sustainability identity shapes internal and external stakeholder's understandings of, interpretations of, and attitudes to sustainability implementation. Thus, an organisation's sustainability identity is closely associated with commitment, trust, communication and information sharing in inter-organisational relationships in the context of sustainability implementation.

There are also some examples of a salient shared identity between IO2 and its suppliers on a dyadic basis. IO2 adopts a partnership approach with its major suppliers in both its traditional procurement practices and its green procurement efforts. These suppliers perceive a salient shared identity in the buyer-supplier relationships in IO2's traditional procurement practices. In other words, they treat IO2 as their business partner and have a sense of belonging in the buyer-supplier relationships. Consequently, they perceive a high level of commitment, trust and sharing in these relationships. These relational capitals turn into operational excellence in IO2's

procurement practices, such as the suppliers' flexibility in delivery time and good quality of the products and services supplied. In IO2's green procurement, suppliers in Category B both perceive a salient relational identity in their relationships with IO2 and a salient sustainability identity of IO2. In other words, they perceive that IO2 is a business partner with them, and IO2 is committed to its green procurement practices. Therefore, they are committed to IO2's green procurement and are willing to make relevant investments. The salience of the sustainability identity and the relational identity also lead to some suppliers' intention and readiness to establish an inter-organisational learning network. Hence, there is potential to form a shared identity within a supplier network.

In comparison to the IO2, IO1 and IO3 generally adopt arm's-length or contract-based approaches to their suppliers. Therefore, the majority of the suppliers don't perceive the salience of a buyer-supplier relational identity. The dysfunctions of the absence of a salient relational identity include low commitment, little information sharing, limited communications, and self-benefits seeking. Furthermore, in the absence of a salient sustainability identity, suppliers stick to the procurement criteria provided by the focal organisations and are reluctant to make any additional efforts towards the focal organisations' sustainability implementation.

In summary, the findings of this research suggest that identity issues in sustainable supply are complex. Organisations face the challenge of multiple identities during their sustainability implementation in supply chains. Although it is challenging to form a shared supply chain identity in sustainable supply, shared identities (organisational identity within the organisations and the shared identities in inter-organisational relationships) have crucial impacts on relational capital within supply chains. In detail, a shared identity would generate commitment, communication, and sharing in supply chains, which are beneficial for sustainability implementation. Whereas in the absence of shared identities, both internal and external stakeholders have a lack of motivation and commitment to adapt to the changes brought by sustainability implementation in supply chains. The dysfunctions of the absence of a salient relational identity include low commitment, low flexibility, little information sharing, limited communications, self-benefits seeking, and reluctance to make changes.

Proposition 1 – accepted: in sustainable SCM, a shared identity would generate trust, commitment, communication, and sharing in supply chains.

Proposition 1a Organisations face the challenge of multiple identities during their sustainability implementation in supply chains.

Proposition 1b In the absence of a salient shared identity, the dysfunction of the inter-organisational relationships include the internal and external stakeholders' low commitment, low flexibility, little information sharing, limited communications, self-benefits seeking, and reluctance to make changes.

Regarding the benefits of a shared identities, at the organisational level, a sustainability identity of the focal organisation increases the consensus of its international and external stakeholders on sustainability implementation, thus increase their commitment, communication, and sharing . At the international level, a relational identity between the buyer and one supply chain stakeholder (e.g. IO2 and its major suppliers) may increase commitment, communication, and sharing in the dyadic relationship. A shared identity within a supply network, in which at least three organisations are involved (e.g. the learning network of IO2's Chinese suppliers), would increase the commitment, communication, and sharing within the network.

Proposition 1c In sustainable SCM, a sustainability identity of the focal organisation is associated with the consensus of internal and external stakeholders thus would generate their commitment, communication, and sharing on focal organisation's sustainability implementation.

Proposition 1d A shared identity at the dyadic level or within a supply network, in which at least three organisations are involved, would increase the commitment, communication, and sharing in the respective relationships.

Notably, the findings of this research reveal that organisational identities, relational identities, and shared identities among at least three organisations have interactive impacts on each other. In detail, on one hand, the relational orientation in an organisational identity influences the salience of a relational identity in the organisation's relationship with its external stakeholders (for example, donors and suppliers) on a dyadic basis. The salience of relational identities may lead to the formation of a shared identity in triad or network relationships. This gradual approach

to identity formation is similar to the incremental approach (Figure 27) that Toyota adopts in establishing a learning network among its suppliers (Dyer & Nobeoka, 2002). On the other hand, the shared identities in the inter-organisational relationships would increase the trust, commitment, communication, and sharing in the relationships, which would be helpful for the external stakeholders to buy in the focal organisation's idea about sustainability implementation, thus is helpful for the formation of the focal organisation's sustainability identity.

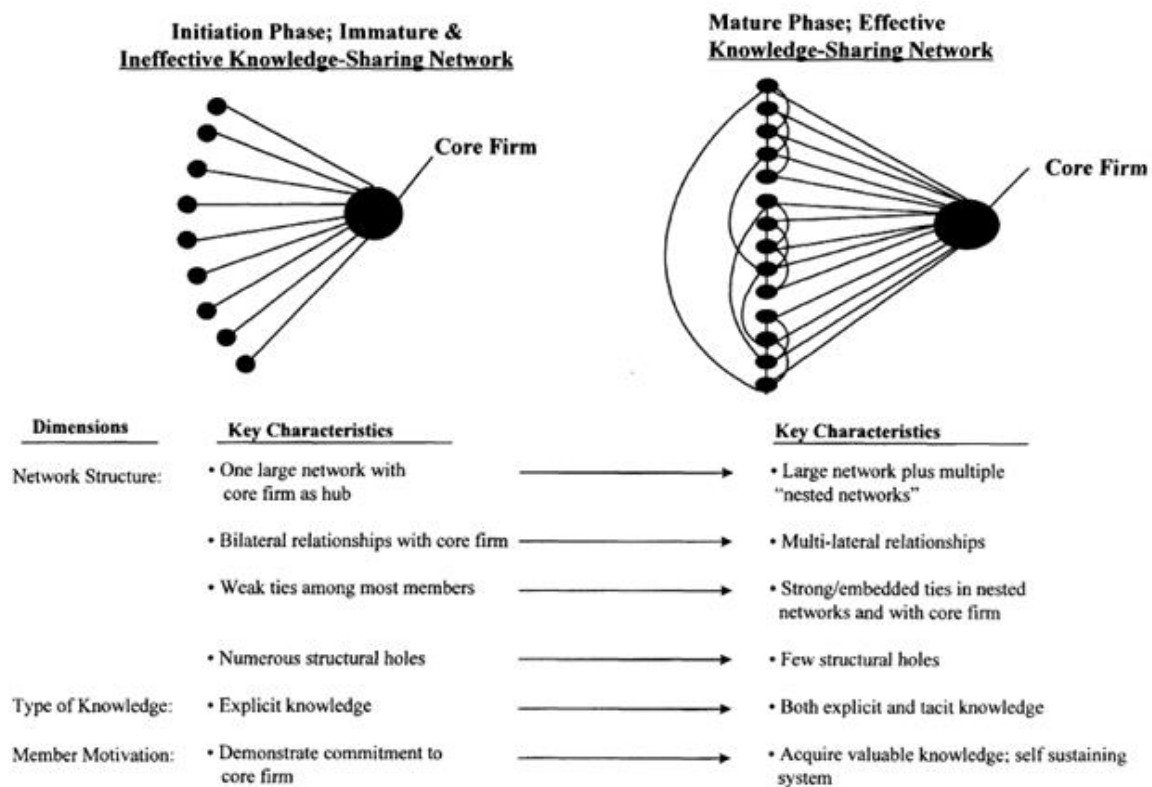


Figure 27 Evolution of a knowledge-sharing network
(Adopted from Dyer & Nobeoka, 2002: 39)

Proposition 1e Organisational identities, relational identities, and shared identities among at least three organisations have mutual impacts on each other.

Inspired by the network evolution model (Dyer & Nobeoka, 2002), an identity evolution framework is developed (Figure 28). As shown in Figure 28, a salient sustainability identity of an organisation generates the consensus of internal stakeholders (e.g. procurement practitioners) and external stakeholders (e.g. suppliers) on sustainability implementation in supply chains. The salience of a sustainability identity of the focal organisation is helpful for establishing a shared sustainability identity on a dyadic basis

(buyer-supplier relationship) and a network basis (e.g. China suppliers' learning network in the IO2 case).

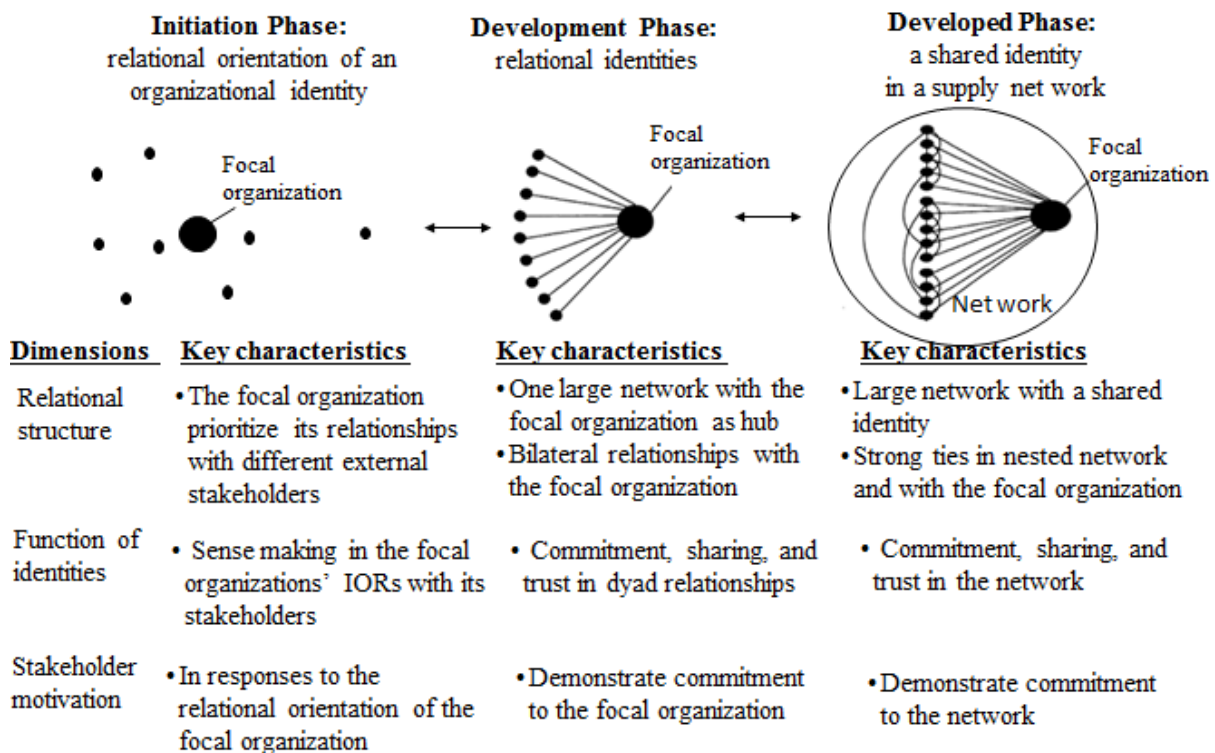


Figure 28 Evolution of identities in the supply chain
(Adapted and extended from Dyer & Nobeoka, 2002: 39)

Proposition 1f - The salience of a sustainability identity of the focal organisation is helpful for forming a shared sustainability identity on a dyadic basis and a network basis.

6.1.2 Proposition 2: roles of leaders in identity communications and regulations

Proposition 2 Leaders play an important role in communicating and regulating identity issues in sustainable supply

Leaders in supply chains need to manage the supply relationships through relational leadership (Uhl-Bien, 2006) proactively. More specifically, leadership is regarded as a key enabler (Walker & Jones, 2012) of and/or a barrier (Ageron et al., 2012) to inter-organisational relationships in (sustainable) supply chains. Alvesson and Willmott (2002: 619) find that managerial intervention to identity issues “operates, more or less intentionally and in/effectively.” Leaders should proactively regulate and communicate identity issues so that they can proactively manage inter-organisational relationships

via influencing the social identification of the internal and external stakeholders (Alvesson & Empson 2008; Alvesson & Willmott, 2002).

The findings of this research reveal that leaders influence identity regulations and communications in sustainable supply via the following elements. The first element is the leaders' agreements/disagreements about identities. Some scholars argue that leaders' identity disagreements lead to organisational failure by 1) decreasing organisational members' organisational identification, sense of meaning, and sense of belonging to the organisation (Kreiner & Ashforth, 2004); 2) bringing confusion/conflicts in resources allocation in new projects or initiatives (Golden-Biddle & Rao, 1997); 3) increasing relationship-based conflicts between different internal groups within the organisation (Jehn et al., 1999); and 4) increasing the confusion or even mistrust of the external stakeholders if they deal with different leaders of the organisation (Scott & Lane, 2000).

As indicated in Table 43, in comparison to IO2 and IO3, IO1 has considerable identity disagreements among its procurement policymakers (i.e. the leaders for IO1's procurement). The findings in the IO1 case support the argument about the negative impacts of the leader's identity disagreements. First, the leaders' identity disagreements lead to the decision-making difficulties and competing priorities in identity regulations and communications during sustainability implementation in supply chains. In IO1, the three procurement policymakers have different beliefs on the sustainability identity thus have a difficult trade-off between competing priorities. In detail, sustainability implementation competes with other work priorities like humanitarian issues (implying emphasis on cost effectiveness and delivery time), anticorruption concerns, and marketing needs of IO1's advisory services. Second, these decision-making difficulties and competing priorities are associated with the lack of supporting formalization (for example, procedures, policies, and contracts) for sustainable procurement. These decision-making difficulties and confusion are also related to the low motivation even distrust of the internal stakeholders (e.g. procurement practitioners) and external stakeholders (e.g. suppliers). Furthermore, some internal stakeholders link the leader's identity disagreements with the poor leadership of the organisation. Therefore, their identification with the organisation and the leaders decreases. The procurement policymakers in IO2 and IO3 have fewer identity agreements than those in IO1. Therefore, the procurement practitioners have

less confusion about the intention of their organisations regarding sustainable procurement.

Items	PM1	PM2	PM3
Anticipated characteristics of sustainability identity	<ul style="list-style-type: none"> · To be senior as leaders in public sustainable procurement; · To find solutions suitable for local context 	<ul style="list-style-type: none"> · To increase IO1's impacts and image and promote its advisory services; · Open communications and cooperation with suppliers without breaking the line 	<ul style="list-style-type: none"> · Higher priorities of humanitarian issues; · Procurement practitioners' creativity and proactivity in discussing sustainability issues with external stakeholders
Perceived actual characteristics of sustainability identity	<ul style="list-style-type: none"> · A leader in sustainable procurement · A lot of efforts to sustainable procurement without recognition of procurement practitioners 	<ul style="list-style-type: none"> · A loser in public procurement · Need legal protection in contacts with suppliers 	<ul style="list-style-type: none"> · Early stage in sustainable procurement · Needs of including sustainability IO1's formalizations

Table 43 Leaders' identity disagreements in IO1

The second element related to leader's role in identity regulations and communications is the identity disagreements between the leaders and the organisation's internal and external stakeholders. In comparison to IO2, IO1 and IO3 have more identity disagreements among their leaders (e.g. procurement policy makers), internal stakeholders (e.g. procurement practitioners), and external stakeholders (e.g. suppliers). These different expectations and perceptions about sustainability implementation are associated with the communication gap during sustainability implementation in supply chains. In comparison to the IO1 and IO3 cases, the IO2 case demonstrates that high identity agreements between the leaders and the internal/external stakeholders help organisations to form a salient sustainability identity, fosters the motivation of the internal stakeholders, and enhance the commitment of the external stakeholder (for example, the suppliers) in sustainable procurement.

Third, leader's purpose of and proactivity in identity regulations and communications during sustainability implementation in supply chains have great impacts on the behaviours of internal and external stakeholders in response to sustainable supply. Section 5.3 defines a typology of identity regulations and communications based on leader's efforts in communicating sustainability identities and their commitment to sustainability implementation. Accordingly, in response to the leader's identity

communications and their commitments to sustainability implementation, the internal and external stakeholders behave differently in sustainability implementation.

Proposition 2 accepted: leaders play important roles in communicating and regulate identity issues in sustainable supply.

Proposition 2a The identity agreements/disagreements within the leaders' team have great impacts on the formation of the sustainability identities.

Proposition 2b The identity disagreements between the leaders and the organisation's internal and external stakeholders have great impacts on the formation of the sustainability identities.

Proposition 2c Leader's purpose of and proactivity in identity regulations and communications during sustainability implementation in supply chains have great impacts on the behaviours of internal and external stakeholders in response to sustainable supply via the actually perceived identity of the external stakeholders.

6.1.3 Proposition 3: role of boundary spanners in social identity issues

Proposition 3 Boundary spanners, such as procurement staff, play an important role in social identity issues in sustainable supply.

Boundary spanners play an important role in inter-organisational relationships in supply chains (Christopher, 2005; Wu et al., 2010), especially in the context of changes in supply chains (Christopher, 2005). As boundary spanners, supply/procurement managers have great impacts on inter-organisational relationships in supply chains by acting as negotiators, facilitators, supplier's advocates, and educators in the relationships (Wu et al., 2010). During social identity processes, as internal stakeholders, boundary spanners (e.g. procurement staff) influence and are influenced by the identity formation and communication (Hogg & Abrams, 1996) in the organisation and the supply chain. In detail, identity salience is defined by individuals' identity comparisons. These comparisons influence individuals' attitudes and behaviours (Dutton & Dukerich, 1991; Gioia et al., 2010). Consequently, the individuals have a stake in directing organisational actions in the way that is consistent with their perceived organisational identity and in the way that they manage

outsider's impressions of the organisation according to the perceived organisational identity (Dutton & Duckerich, 1991).

The findings of this research reveal that the boundary spanners (e.g. procurement practitioners) play an important role in focal organisations' relationships with their external stakeholders (e.g. donors/clients and suppliers) in sustainable SCM. In detail, they liaise with the external stakeholders based on their perceived organisational identity in sustainable supply. Sustainability implementation brings potential changes to the core organisational identity (such as new specification in procurement, closer relationships and open discussion with suppliers, proactivity, and creativity in contacting external stakeholders for sustainability issues). Therefore, sustainability implementation may require that procurement practitioners change their approaches to their work and to their relationships with the external stakeholders. The boundary spanners' perceptions about the salience of sustainability identities define their behaviours and attitudes in their liaison with external stakeholders in sustainable supply. Furthermore, their attitudes to and behaviours in sustainable supply have impacts on external stakeholders' perceptions about the focal organisation's sustainability identities. If the procurement practitioners don't perceive salient sustainability identities of their organisations, they have low proactivity to contact external stakeholders for sustainability issues. In the public sector organisations which emphasise transparency of procurement practices (e.g. the focal organisations in the three cases), procurement practitioners who don't perceive salient sustainability identities of their organisations are even afraid to contact external stakeholders for sustainability issues because of the anti-corruption concerns.

Proposition 3 Accepted: boundary spanners, such as procurement staff, play an important role in social identity issues in sustainable supply.

Proposition 3a The boundary spanners liaise with the external stakeholders based on their perceived organisational identity in sustainable supply.

Proposition 3b The boundary spanners' attitudes to and behaviours in sustainable supply have impacts on external stakeholders' perceptions about the focal organisation's sustainability identities

6.1.4 Proposition 4: role of external stakeholders in social identity issues

Proposition 4 External stakeholders play an important role in social identity issues in sustainable supply.

Although the SCM literature emphasises the importance of the focal organisations' relationships with its external stakeholders (e.g. Christopher, 2005), the majority of the existing research only study these relationships from the perspective of the focal organisations. In the field of sustainable supply, Miemczyk et al. (2012) notice that in terms of supplier relationships in sustainable supply, the majority of the sustainable supply research focuses on the focal organisations' efforts in supplier evaluation, supplier selection, contracting activities, and supporting suppliers. Therefore, it would be insightful to examine the suppliers' perspectives and suppliers' impacts on sustainable supply.

The social identity approach suggests that identities emerge and develop over time via the complex interactions among the internal and external stakeholders (Gioia, 1998; Scott & Lane, 2000). An organisation's relations with its internal and external stakeholders keep a prominent feature of its organisational identity (Brickson, 2005). Some researchers examine the interaction between the internal and external stakeholders of the organisation during the social identity process. Hatch and Schultz (2002) argue that organisational efforts to draw their external stakeholders into personal relationships make these stakeholders identify with the organisation. Thus, these stakeholders are encouraged to think of themselves and behave as members of the organisation. Morsing (2006) suggests that communicating the organisation's CSR efforts via external stakeholders is one of the most powerful communication strategies to improve the organisational members' identification or cause their dis-identification.

The findings of this research evidence the reciprocal relationships between the external stakeholders and the social identity issues during sustainability implementation in supply chains. On one hand, whether the focal organisations liaise with their external stakeholders (such as donors/clients, governments, and suppliers) is an important indicator of the focal organisations' commitment to sustainable procurement. Consequently, whether the focal organisations liaise with and how the

focal organisations liaise with their external stakeholders in sustainable procurement have great impacts on the salience of the focal organisations' sustainability identity. The focal organisations' liaison with its external stakeholders is influenced by the identity agreements/disagreements between the focal organisations and their external stakeholders. In the three cases of this research, governments, donors/clients have great power in the supply chains. Therefore, their attitudes to sustainable procurement have great impacts on the decisions of the focal organisations in sustainable procurement. For the governments, donors/clients which fund/procure the procurement services of IO1 and IO3, humanitarian issues, and social sustainability have higher priorities than environmental sustainability. However, (at least some) procurement policymakers and procurement practitioners include environmental sustainability in their anticipated characteristics of sustainability-related organisational identity. Meanwhile, both IO1 and IO3 mention environmental sustainability to some extent when they communicated their sustainability identities in their publications and websites. From the suppliers' side, the majority of the interviewed suppliers in the three cases prioritized economic sustainability in their anticipated characteristics of sustainability-related organisational identity. But in IO1 and IO3, the focal organisations' emphasis on cost effectiveness in their procurement practices has potential conflicts with supplier's emphasis on earning profits. In shorts, in comparison to IO2, IO1 and IO3 have more identity disagreements with their external stakeholders in sustainable procurement. These identity disagreements are associated with the low saliences of the focal organisations' sustainability identity.

On the other hand, the salience of sustainability identity perceived by the external stakeholders has great impacts on their attitudes and behaviours in response to the focal organisations' sustainable procurement efforts. A salient sustainability identity is associated with suppliers' commitment to sustainable procurement, as well as relational investment and information sharing in sustainability implementation (e.g. the IO2 case), whereas low salience of the focal organisation's sustainability identity is associated with suppliers' low commitment to, low proactivity, and even self-benefits seeking in sustainable procurement (e.g. the IO1 and IO3 cases). The impact of identity salience suggests the importance of looking at social identity issues in sustainable supply.

Notably, although only suppliers are interviewed as external stakeholders due to accessibility issues, the data from both the focal organisations and the suppliers reveal that the governments, donors/clients have vital impacts on the focal organisations' identity formation in both their traditional and sustainable procurement practices. Furthermore, the attitudes and procurement decisions of these stakeholders are influenced greatly by the needs and preferences of the beneficiaries (as the end users) and the community. The influence of these stakeholders on sustainable procurement implies the research opportunities of study sustainable supply beyond the dyadic relationships

Proposition 4 accepted: external stakeholders play an important role in social identity issues in sustainable supply.

Proposition 4a Whether the focal organisations liaise with and how they liaise with their external stakeholders in sustainable supply have great impacts on the external stakeholders' perceptions about the salience of the focal organisations' sustainability identity.

Proposition 4b The focal organisations' liaison with its external stakeholders is influenced by the identity agreements/disagreements between the focal organisations and their external stakeholders.

Proposition 4c The salience of sustainability identity perceived by the external stakeholders has great impacts on their attitudes and behaviours in response to the focal organisations' sustainable supply efforts.

6.2 Revisiting of the conceptual framework

This section revisits the conceptual framework developed in Chapter 2 and proposes several modifications based on the research findings. The conceptual framework is employed for the following purposes: 1) to summarise the findings of the literature review and to guide the research during the fieldwork; 2) to present possible changes based on the research findings. The following paragraphs discuss the modifications to the original conceptual framework respectively in terms of the context, process and outcome of social identity issues in sustainable supply.

6.2.1 Context

The needs for “self-enhancement” and “uncertainty reduction” are the key motives for social identity activities and intergroup behaviours (Ashforth & Mael, 1989; Tajfel & Turner, 1979). In sustainable supply, sustainability implementation implies potential risks in supply chains. In detail, sustainability implementation may not necessarily bring short-term cost savings; some will even result in immediate cost increases (Wu & Pagell, 2011). The risks associated with the sustainable efforts may be one of the key barriers to stakeholder participation in sustainability implementation in supply chains. Therefore, in the initial conceptual framework (Figure 29), the first column (context) defined the motives of and barriers to stakeholders’ identification issues in sustainable supply as “self-enhancement” and “uncertainty reduction and risks” respectively.

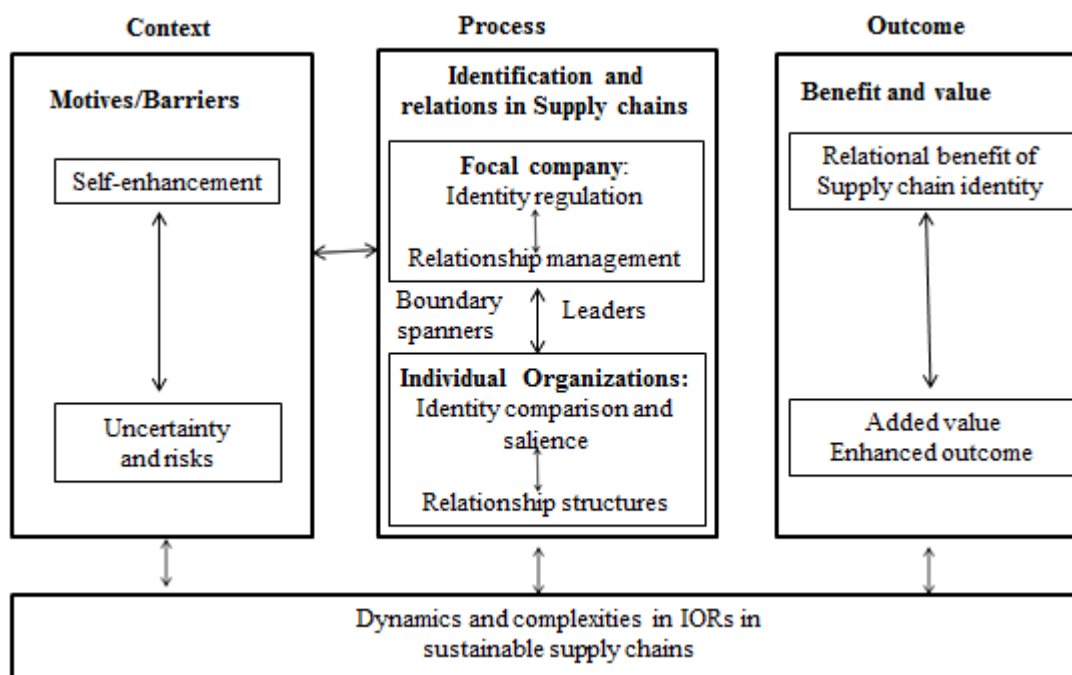


Figure 29 The initial conceptual framework

As indicated in the revised framework (Figure 30), the research findings reveal that there are two key factors that are served as the context for social identity issues in sustainable supply: 1) identity matches/conflicts between the core identities and the sustainability identities; 2) organisations’ purpose of sustainability implementation. These two factors can be both motives and barriers for social identity issues in sustainable supply. In detail, if there are potential conflicts between the core identities

and the sustainability identities (e.g. the IO1 and the IO3 cases, as well as part of the IO2 case), the focal organisations may face challenges in forming a salient sustainability identity. In the case of identity conflicts, both the internal and external stakeholders tend to perceive the salience of the core while they don't perceive the salience of the sustainability identities. Thus, they are reluctant to make changes required by sustainability implementation. The focal organisations' different purposes in sustainability implementation are associated with their different approaches to identity regulations and communications during their sustainability implementation in supply chains.

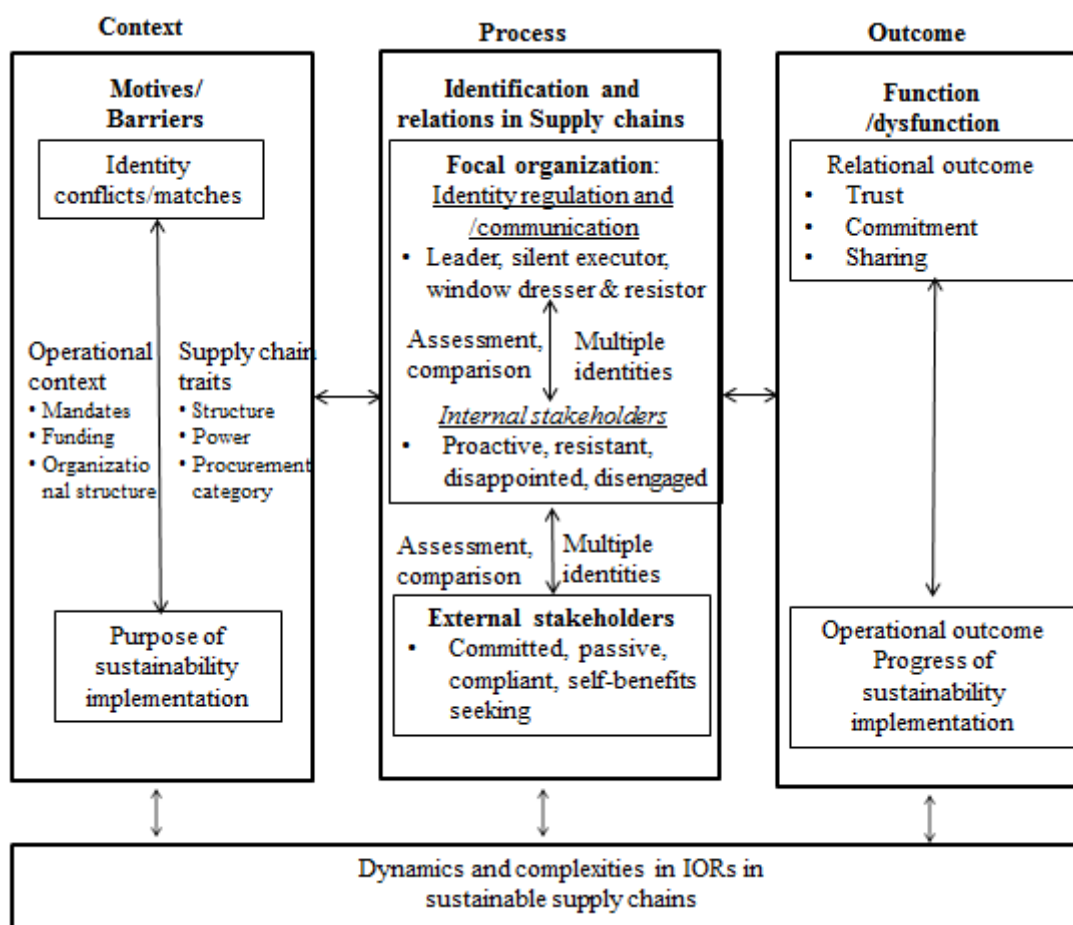


Figure 30 The revised conceptual framework

Identity conflicts/matches and organisations' purposes for sustainability implementation are influenced by organisations' operational context and their supply chain characteristics. The sectors and the industries in which the focal organisations are in have great impacts on their organisation identities and their potential identity matches/conflicts. Organisations' identity matches/conflicts and their purpose to

sustainability implementation are influenced by their organisational structures. All three cases in this research evidence the existence of sub-identities within the organisations, especially between the headquarters and the regional/country offices. This is particularly true in the IO3 case, where the headquarters don't have much direct procurement responsibility and only provide guidance to the regional/country offices. In the IO2 case, there are sub-identities between the procurement teams in charge of different procurement categories. In some of the categories, there are more identity conflicts between the sustainability identity and the core identity. In the public sector organisations like IO1, IO2, and IO3, the organisations' mandates and funding resources have great impacts on their organisational identities and identity conflicts between their sustainability identities and core identities. In short, the research findings of this research suggest that organisations' operational contexts have great impacts on their organisational identities and identity conflicts/matches in their sustainability implementation in supply chains.

At the supply chain level, this research identifies two factors influencing identity conflicts/matches and organisation's purposes to sustainability implementation: the supply chain structure, and power allocation in the supply chain. The supply chain structure refers to the products and /or services that the focal organisation procures, the characteristics of the supply base (e.g. the number of suppliers, the stability, the quality and geographic location of the suppliers), and the composition of supply chain stakeholders. Vachon and Mao (2008) investigate the potential link between supply chain strength (the number and quality of the suppliers and customers) and sustainable development at the country level. Their study supports the argument that organisations take a proactive approach towards managing sustainability issues in their supply chains. However, the findings of this research suggest organisations may not always take a proactive approach towards sustainable supply. This research argues that the organisation's supply chain structures have impacts on its identity conflicts/matches during sustainability implementation. If there are potential identity conflicts during its sustainability implementation, the organisation may not be proactive in its sustainability implementation (i.e. the IO1 and the IO3 cases). Some organisations (e.g. IO1 and the majority of the Chinese companies in the preliminary study) even use sustainability implementation as a marketing tool to increase their

organisational image but don't take many actual steps towards sustainability implementation.

Min et al. (2008: 288) define supply chain identity salience as "the extent of a firm's sense of belonging to a particular supply chain". They identify economic interdependence as a major driver of supply chain identity salience. Actually, power and interdependence are central issues in inter-organisational relationships (Huxham & Beech, 2008). More specifically, power notably influences various aspects of supply chain relationships including trust, levels of conflicts, collaboration, commitment, and satisfaction (Terpend & Ashenbaum, 2012; Touboulic et al., 2014). In the context of sustainable supply, power and interdependence play a crucial role in the sharing of sustainability-related risks and value among supply chain stakeholders (Simpson & Power, 2005). In line with the above-mentioned studies, the findings of this research support that power issues have great impacts on the identity conflicts/matches during the organisation's sustainability implementation in its supply chains. Meanwhile, power allocation in the supply chain influences the purposes and attitudes of the organisation to sustainability implementation in supply chains. In detail, if some supply chain stakeholders (e.g. governments, donors, and clients, especially in the IO1 case) have more power than the organisation, the organisation's purposes and attitudes to sustainability implementation depend heavily on the stakeholders' attitudes to sustainability implementation. Meanwhile, if the organisation has not enough power in its supply chain and its stakeholders don't depend on it economically (e.g. the IO1 and IO3 cases, as well as IO2 in some of its procurement categories), it may not have sufficient influences on its supply chain stakeholders in forming strong relationships and sustainability identities.

To sum up, the factors in the first column (context) reveal two important findings. First, although some researchers propose the importance of a salient supply chain identity in supply chain management (e.g. Min et al., 2008) or a sustainable organisational identity in sustainability implementation (e.g. Colbert & Wheeler, 2002), there tends to be an assumption of a single identity thus a considerable ignorance on the dynamic's and complexity of identity issues. The findings in the context column present a need for examining the existence of multiple identities (Albert & Whetten, 1985) and the tension of these identities, which are under-explored in the SCM literature. In other

words, the salience of a sustainability identity relies largely on the matches/conflicts between the sustainability and the core identity of the organisation.

Second, the majority of the sustainable supply literature suggests that organisations are proactive in sustainability implementation (e.g. Vachon & Mao, 2008) or their sustainability implementation is driven by their external stakeholders (Walker & Jones, 2012). Data in the first column (context) suggests that organisations may have different purposes to and different levels of proactivity in sustainability implementation. Meanwhile, some stakeholders (including governments and clients) may not have the requirement of sustainability implementation. There is an interactive relationship between the organisations' purposes to sustainability implementation and their identity conflicts/matches during sustainability implementation. These two factors are influenced by organisations' operational context and its supply chain characteristics. This finding implies the need for the organisations to examine their internal and external business environment during their sustainability implementation. Notably, the findings of the importance of power allocation in supply chains argue that it is crucial to study sustainable supply at a network level (Miemczyk et al., 2012). Section 6.2.2 now discusses the changes to the original framework in the column of process.

6.2.2 Process

The initial conceptual framework (Figure 29) defined the process of inter-organisational relationships in sustainable supply at both the psychological level (social identity issues) and the operational (including strategic and behavioural) level. The social identity process is highly relational and comparative (Turner et al., 1987). Common social identity processes include 1) social contrast and comparison; and 2) individual influences during identity formation (Phinney, 2008). Organisational identity processes are inextricably linked to the organisation's relations with its internal and external stakeholders (Albert et al., 2000). Therefore, the column of process emphasised the interaction between the focal organisation and its supply chain stakeholders and the role of boundary spanners.

There are several changes/ additions to the revised conceptual framework (Figure 30). First, it defines the typology of leaders' identity regulations and communications by defining four types of identity regulation and communication approaches: leader; silent

executor; window dresser, and resistor. Accordingly, the organisational members (e.g. procurement practitioners) have four types of attitudes and behaviours in response to the leaders' identity regulations and communications: proactive, resistant, disappointed, and disengaged. The external stakeholders (e.g. suppliers) also have four types of attitudes and behaviours in response to organisation's identity regulations and communications: committed, passive, compliant, and self-benefit seeking. The typology of leaders' identity regulations and communications and the responses of the internal and external stakeholders provide more details about the identity processes during organisations' sustainable supply.

Some sustainable SCM researchers discuss the role of leaders and top management in sustainable SCM, arguing the lack of top management commitment is one of the key barriers to sustainable supply (e.g. Ageron et al., 2012; Touboulic & Walker, 2015a). However, the sustainable SCM literature tends to regard an organisation as a whole when examining its sustainability implementation approach. For example, based on internal and external enablers/barriers, Walker and Jones (2012) define a typology of companies' approaches to sustainable supply. They identify four types of companies in sustainable supply: agenda setters, external responders, internal focusers, and reserved players. Little is known in the literature how the organisational leaders interact with the organisational members, especially the boundary spanners in sustainable supply. In addition, it is also underexplored how the interaction between the organisational leaders and organisational members influence the organisation's supply chain relationships and stakeholder engagement during sustainable supply implementation. This research provides a nuanced view on different approaches that organisational leaders adopt in communicating and regulating identity issues in sustainable supply and the impacts of these approaches on the attitudes and behaviours of the internal (e.g. procurement practitioners) and external stakeholders (e.g. suppliers).

The second change in the column of process is the emphasis on identity comparison and identity salience. The data of this research reveals the existence of multiple identities during the organisation's sustainable supply. The findings of this research suggest that the central identity-related challenge during the organisation's sustainable supply is about the organisation's CI and its SI. The organisation's multiple

identities influence and are influenced by its relationships with its internal and external stakeholders. These stakeholders are not merely passive receivers of the organisation's efforts towards its identity regulations and communications. In contrast, they actively participate in identity construction and reconstruction via various identity assessments and identity comparisons (Scott et al., 1998). These comparisons define the salience of identities and affect the stakeholders' attitudes and behaviours towards the organisation (Ashforth & Mael, 1989; Gioia et al., 2010). The findings in this research evidence the identity assessment and comparison of the internal and external stakeholders during sustainable supply implementation.

To sum up, the column of process in the revised conceptual framework (Figure 30) defines four types of identity regulation and communication approaches that focal organisations adopt during their sustainable supply. It highlights the roles of internal stakeholders (e.g. leaders and procurement practitioners) and external stakeholders (e.g. suppliers) in the identity processes during sustainable procurement implementation. It also emphasises the importance of stakeholders' identity assessment and comparison among multiple identities, arguing that the identity assessments and comparisons influence stakeholders' attitudes to and behaviours in the focal organisations' sustainability implementation in their supply chains.

6.2.3 Outcome

The column of outcome in the initial framework (Figure 29) defined the benefits and value of the social identity activities during sustainable supply implementation into two categories: relational benefits (Ireland & Web, 2007; Min et al., 2008) and enhanced operational outcome (Ireland & Web, 2007). The major change in the third column of the revised conceptual framework is that it doesn't only focus on the benefits of a supply chain identity. In line with the emphasis on multiple identities and the complexity of identity activities (please refer to the second column in Figure 30), the third column presents the function/dysfunction of identity activities during sustainable supply implementation.

The research findings reveal that the central issue around the functions and dysfunctions of identity dynamics during sustainable supply implementation is about the boundary spanners' (e.g. procurement practitioners') proactivity and creativity in

contacting external stakeholders for sustainability issues. Since the boundary spanners are the relationship promoters in supply chain relationships (Walter & Gemünden, 2000), their attitudes to and behaviours in their organisations' sustainable supply have great impacts on the external stakeholders' (e.g. suppliers') attitudes to and behaviours in the focal organisations' sustainable supply implementation. The thirds column defines two types of function and dysfunction of identity dynamics during sustainable supply implementation. In terms of the relational capital, the function/dysfunction of identity activities is about the level of commitment, cooperation, engagement, and sharing. In terms of the operational outcome, the function/dysfunction of identity activities includes the progress of sustainability implementation, the flexibility, and creativity in sustainable implementation.

6.3 Revisiting of the research questions

This section reviews the research questions. Chapter 2 defined two research questions: RQ1 How do focal organisations engage their supply chain stakeholders in sustainable SCM using social identity thinking? RQ2 What are the specific identity issues relating to inter-organisational relationships in a sustainability context? Section 6.3.1 now deals with RQ1.

6.3.1 RQ1: extent of using social identity thinking in sustainable SCM

Organisational identity processes are inextricably associated the organisation's relations with its stakeholders (Albert et al., 2000). Therefore, Turner et al. (2010) suggest that organisational leaders should proactively maintain the salience of the organisational identity. Despite the importance of social identity factors, the findings of this research suggest that many organisations seldom use social identity thinking effectively in stakeholder engagement in their sustainability implementation in supply chains. The research findings uncover several important factors regarding the focal organisations' stakeholder engagement in sustainable SCM using social identity thinking. They are: 1) the supporting formalization and its manifestations, such as contracts, rules, and procedures (Vlaar et al., 2007) for sustainable SCM; 2) the extent and means of communications for sustainability issues; 3) organisational images related to sustainability; 4) the consistency in managing and communicating sustainability identities. This section discusses in detail the role of these factors in

social identity issues and the extent that organisations consider these factors in their stakeholder engagement in sustainable supply.

Formalization

In the three cases, all three focal organisations are in the public sector, where procurement practices are conducted strictly according to the procurement policies, procedures, tendering documents, and contracts. Both the internal stakeholders (e.g. procurement policymakers and procurement practitioners) and external stakeholders (e.g. suppliers) think that whether sustainability is included in the focal organisations' formalization is a crucial symbol for them to perceive whether the organisations' sustainability identities are salient. The role of formalization is extremely important in the cases where there are potential conflicts between the organisations' core identities and their sustainability identities (e.g. the IO1 and IO3 cases). By establishing the formalization supporting sustainability implementation, the focal organisation (e.g. IO2) sends strong messages to its internal and external stakeholders that the organisation is committed to its sustainability implementation in supply chains. In short, it makes its SI salient to its stakeholders. Consequently, the internal stakeholders (procurement practitioners) are motivated and proactive in engaging external stakeholders (e.g. government and suppliers) in sustainability implementation. Accordingly, the external stakeholders are motivated and cooperative in implementing the sustainability practices of the focal organisation.

The lack of supporting formalization for sustainability implementation (e.g. the IO1 and IO3 case) makes the internal and external stakeholders perceive that the core identity is more salient than the sustainability identity. In other words, the stakeholders following the characteristics related to the organisations' traditional procurement/SCM practices (e.g. cost-effectiveness, transparency, fairness, and arm's-length supplier relationships). They are reluctant to make changes to facilitate changes required by sustainability implementation (e.g. flexibility and creativity in defining procurement specifications and contacting supply chain stakeholders, close relationships with suppliers, and potential cost increases). If the organisation puts a lot of effort in communicating their sustainability identities but lacks of supporting formalizations (e.g. the IO1 case), both the internal and external stakeholders will perceive that the

organisation is just using sustainability to increase its organisational image for marketing purposes.

Communications

The research findings reveal that there are two types of identity communications: 1) communications in the publications and websites, which is often related to the organisations' communicated identities and their organisational images; 2) communications to and conversations with the internal and external stakeholders, which is often related to the organisations' actual and perceived identities. For both the internal and external stakeholders, formalization is considered as an important communication approach. Another important approach is the conversation between the focal organisation and its internal and external stakeholders (via e-mails, meetings, telephones, face-to-face discussion) on sustainability issues. Hatch and Schultz (2002) argue that maintaining identity salience requires the organisation to maintain an open conversation among its leaders, organisational members, and external stakeholders. The research findings of this research support that this conversation helps the focal organisation (e.g. IO2) to understand more about its stakeholders' expectations with respect to sustainability, thus is crucial for group formation and creating a sense of belonging (Alvesson and Willmott, 2002). Identity conversation reduces the inconsistency between the communicated identity and the perceived identity, as well as identity disagreements between different stakeholder groups. Notably, all three case organisations are in the public sectors, where procurement is conducted with strict procedures, high transparency, and fairness. Therefore, the extent of this conversation depends heavily on the relevant formalization relating to sustainability implementation. In comparison to IO2, IO1 and IO3 have few sustainability-related dialogues with their internal (e.g. procurement practitioners, especially those in country offices) and external stakeholders (e.g. governments, donors, and suppliers).

Organisational image

Another means that the focal organisations use in their sustainable supply are creating a positive organisational image related to sustainability. Alvesson and Willmott (2002) argue that an important means of identity regulation is to create a positive organisational image. The research findings uncover that some organisations (e.g.

IO1, IO3, and some Chinese companies in the preliminary study) proactively create and maintain their organisational image of sustainability implementation. Whereas some other organisations (e.g. IO3, some Chinese companies in the preliminary studies) conduct limited communications about sustainability. The lack of a sustainability-related organisational image sends messages to internal and external stakeholders that the organisation is not committed to sustainability implementation. The research findings of this research also argue that creating a positive organisational image can be a two-sided sword, depending on the consistency of the organisations' identity communications. If the internal and external stakeholder perceive that the organisation doesn't make real efforts towards sustainability besides creating a sustainability-related image (e.g., the IO1 case, many Chinese companies in the preliminary study), they will have low motivation and proactivity in sustainability implementation. More seriously, the internal stakeholders may be disappointed with the organisational leaders and have psychological exits to the organisation (e.g. intention to leave the organisation). The external stakeholders may be self-benefit seeking during the focal organisation's sustainability implementation (e.g. asking for a sustainability premium).

Level of consistencies

Consistency⁷ is crucial in identity regulations and communications. The research findings reveal that focal organisations have different levels of consistency in their identity issues. Only a few organisations (IO2 and the furniture company in the preliminary study) have comparably high level of consistency in their identity management and communication. The majority of the focal organisations (IO1, IO3 and most of the Chinese firms) have considerable inconsistency related to identity issues. There also exist different identity beliefs among different stakeholders. In detail, the leaders of the focal organisations, the organisational members, and supply chain stakeholders (e.g. suppliers, NGOs) may have different expectations to and understandings of sustainability implementation. For example, in the preliminary study, the majority of the focal organisations focus on economic sustainability while NGOs generally focus on environmental and social sustainability. In the three case

⁷ In the social identity theory, the expression of "continuity of prototype" is often used instead of "consistency" (Billig & Tajfel, 1973; Tajfel et al., 1971).

studies, the majority of the suppliers emphasise that the business and the buyer-supplier relationship should be sustained. While IO1 focuses on its organisational image for marketing purposes and IO3 focuses on including environmental criteria into its procurement.

In summary, the research findings reveal that many organisations have different understandings of the complexity of identity issues in sustainable SCM and their impacts on the sustainability implementation in their supply chains. Hence, many organisations (e.g. IO1, IO3 and the majority of Chinese companies in the preliminary study) may not know about the importance of formalizations, communications, organisational images and consistencies during identity regulations and communications. They may not proactively pay attention to the identity issues regarding supply chain stakeholder engagement in sustainability implementation. This research provides a typology of focal organisations' identity regulations and communications: leader, window dresser, silent executor, and resistor. Table 44 summarises the extent of different types of organisations using social identity thinking in their stakeholder engagement in sustainable supply. As shown in Table 44, among the four types of focal organisations, only leader (e.g. IO2 for its selected procurement category) proactively uses social identity thinking during stakeholder engagement in its sustainable supply. The findings of this research suggest that the complexity of identity issues is one major challenge for the focal organisations to engage their supply chain stakeholders in their sustainable supply practices. Yet many organisations pay insufficient attention to the social identity factors. Section 6.3.2 now discusses the specific social identity issues relating to inter-organisational relationships in sustainable supply.

Approaches to using social identity thinking	Leader	Window dresser	Silent executor	Resistor
Supporting formalizations	Available	No, or limited	Available but may be limited	No, or limited
Communications	Sufficient	No, or limited	No, or limited	No, or limited
Sustainability-related organisational image	Actively in maintaining such an image	Actively in maintaining such an image	Limited image maintaining	No, or limited image maintaining
Consistencies in identity communications and regulations	Very consistent	Inconsistent	Consistent	In a consistent

Table 44 Extent of using social identity thinking in sustainable SCM

6.3.2 RQ2: the social identity issues relating to sustainable SCM

During the organisation's identity management and communication in sustainable supply, a central task is to manage multiple identities, especially in the context of organisational changes (Albert & Whetten, 1995; Pratt & Foreman, 2000). The research findings reveal that organisations face the challenges of integrating their sustainability identities into their core identities. There are three main social identity issues relating to inter-organisational relationships in sustainable supply: 1) potential identity changes/conflicts brought by sustainability implementation; 2) the potential inconsistency in identity communications and regulations; and 3) the potential identity disagreements between the different stakeholder groups. This section discusses these identity-related issues in detail.

Potential identity conflicts

Sustainability in supply chains brings complexity and change in supply chain relationships via 1) requiring organisations establish relationships with the broader social and natural environments and non-traditional supply chain members (Seuring, 2004); 2) bringing uncertainty and decision boundaries associated sustainability implementation (Wu & Pagell, 2011). The findings of this research reveal that sustainability implementation brings changes into organisational identities since it may change the beliefs, values, and perceptions of what the organisation is and what it is doing. In detail, sustainable supply adds new specifications in procurement/ SCM practices and brings competing priorities to the organisations (e.g. inclusion of social and environmental criteria in procurement vs. humanitarian issues and economic consideration). Sustainability implementation also requires closer relationships with the supply chain stakeholders and creativity/flexibility in supply chains. Therefore, organisations may have multiple identities during their sustainable supply. Depending on their operational context and supply chain characteristics, there may be potential identity conflicts between the organisations' core identities and sustainability identities.

There are two different schools on organisational identity conflicts. The multiple-identity approach argues that organisations may have multiple identities that don't conflict with each other or are somewhat unrelated or even synergistic (e.g. Fiol, 2002). The other school suggests that organisation' identity conflicts can be harmful to the

organisations (e.g. Friedman & Davidson, 1999). In detail, organisation's identity conflicts alter organisational members' attributions of behaviours, distort communications, increase costly errors, decrease learning in organisations, and decrease flexibility and creativity (Friedman & Davidson, 1999; Humphreys & Brown, 2002; Williams & O'Reilly, 1998). The research findings support that organisations may have potential identity conflicts during their sustainable supply. If the organisations fail to maintain some degree of tolerance, harmony, or balance between their multiple identities (Pratt & Foreman, 2000), both the internal (e.g. procurement practitioners) and external stakeholders (e.g. suppliers) may have low motivation and commitment to sustainable supply. The dysfunctions of identity conflicts also include the stakeholders' confusion, low proactivity, flexibility, and creativity in inter-organisational relationships during sustainability implementation.

The potential identity inconsistency

The data of this research reveals that organisations may encounter various identity inconsistencies/misalignments during their sustainability implementation in their supply chains. The central issue is the inconsistency between organisations' communicated identity, the expectation of the internal and external stakeholders on sustainability implementation, and their actual perceived identity. Both the IO1 and the IO3 cases reflect considerable inconsistencies between their communicated identity related to sustainability and their actual identity. In detail, although both of the organisations declare their commitment to sustainability implementation, there are not sufficient supporting strategies, formalizations, organisational structures (e.g. the low management levels or absence of sustainability officers), or a shared vision of the organisational leaders (the IO1 case). This identity inconsistency is associated with the confusion and even mistrust of internal and external stakeholders. Consequently, they are reluctant to make changes required by sustainability implementation.

The potential identity disagreements between different stakeholders

The research data uncovers considerable identity disagreements within the different stakeholders in the IO1 and the IO3 cases and many Chinese companies in the preliminary study. Even within the same stakeholder group (e.g., the leaders of IO1), there is great identity disagreements. The major identity disagreement focuses on the

anticipated characteristics of sustainability identities (i.e., what does sustainable supply mean). This identity disagreement implies that these focal organisations have limited conversation between their internal and external stakeholders and lack of understandings of stakeholders' expectations on sustainable supply. Consequently, these organisations adopt a unilateral approach to their sustainability implementation. Another kind of identity agreements is about the perceived SI (i.e. whether the organisation makes commitments to and efforts towards sustainability implementation). For example, in IO1, although one PM thinks that the organisation is the leader in public sustainable procurement, the other internal stakeholders (including procurement policymakers and procurement practitioners) and external stakeholders (e.g. suppliers) thought that IO1's sustainable procurement is still at its early stage, and IO1 makes little commitment to sustainable procurement. Since the formation of organisational identity is heavily influenced by the complex interactions among the organisations' internal and external stakeholders, the unilateral approach adopted by these organisations leads to the loss of interest and support from their internal and external stakeholders. The research data support the dysfunction of identity disagreement mentioned by the previous studies: decreased salience of the sustainability identities, increased confusion/conflicts within the organisation and increased confusion or even mistrust of the external stakeholders (Golden-Biddle & Rao, 1997; Scott & Lane, 2000).

Social identity issues	Dysfunctions
Identity conflicts: conflicts between core identities and sustainability identities	<ul style="list-style-type: none"> · Stakeholders' low motivation and commitment to sustainable supply; · Stakeholders' low proactivity, flexibility, and creativity in inter-organisational relationships during sustainability implementation.
Identity inconsistencies: inconsistency during communicating and regulating sustainability identities	<ul style="list-style-type: none"> · Stakeholders' confusion and even mistrust; · Stakeholders' reluctance to make changes required by sustainability implementation.
Identity agreements: stakeholder's different opinions about identity issues	<ul style="list-style-type: none"> · Decreased salience of the sustainability identities; · Increased confusion/conflicts within the organisation; · Increased confusion or even mistrust of the external stakeholders; · The loss of interest and support from internal and external stakeholders.

Table 45 Dysfunctions of identity issues in sustainable SCM

Notably, the identity disagreements within the leaders (e.g. IO1 case) may be one source of the identity disagreements between the different stakeholder groups and the identity inconsistencies of the organisation. The research finding of this research

supports the argument that leaders' identity disagreements lead to organisational failure (e.g., Kreiner & Ashforth, 2004. Refer to Section 6.1.2 for more details). Regarding stakeholder engagement in sustainable supply, leaders' identity disagreements are associated with competing priorities in organisations, decreased identification of internal stakeholders, doubts to the leadership competence, and confusion or even distrust of the external stakeholders. Table 45 summarises the dysfunctions of identity conflicts, inconsistencies, and disagreements in sustainable SCM.

6.4 Summary

A shared identity is vital to sustainable supply since it can increase commitments, trust, communications and information sharing within the organisation and its supply chain. Before forming a supply chain identity among its supply chain stakeholders, organisations need to consider the complexity and dynamics of their own organisational identities. The main identity issues during sustainable supply implementation include: 1) potential identity conflicts/matches between organisations core identities and their sustainability identities; 2) potential identity inconsistency during organisations' communications, vision setting, strategy definition, and execution of their sustainability implementation; 3) potential identity agreements/disagreements between the different stakeholders or even within the top management. The functions/dysfunctions of these identity issues are discussed at both the relational capital level and the operational outcome level.

Organisations' identity issues during their sustainable supply are influenced by its internal and external stakeholders via their identity assessment and comparison. Different stakeholder groups (leaders, organisational members, and external stakeholders) all play an important role in identity formation and development. There are several important factors in organisations' identity regulations and communications: formalizations, stakeholder conversations, organisational images, and the consistencies in managing and communicating sustainability identities.

The conceptual framework is modified to reflect the context, process and outcome of the identity issues in sustainable SCM (Figure 30). It classifies the context as the identity conflicts/matches and organisations' purpose to sustainable supply. The two factors are influenced by organisations' operational context and their supply chain

characteristics. The importance of identity comparison and salience of sustainability identities are highlighted within the column of process. This column also presents a typology of the leaders' identity regulations and communications. Accordingly, it also presents typologies of the stakeholders' behaviours and attitudes in response to the leaders' identity regulations and communications. Chapter 7 now concludes by discussing the contribution to knowledge, implications organisations, limitations of the study and future research direction.

CHAPTER 7 CONCLUSION

This chapter discusses the contribution of this research and the implications for organisations. It also reviews the limitations of this research and proposes future research directions. This chapter is arranged as follows. Section 7.1 discusses the contribution to knowledge. Section 7.2 discusses the implication of the research. Section 7.3 considers the limitations of the study and proposes directions for future study.

7.1 Contribution

This research represents a departure from the literature that focuses primarily on operational levels of sustainable SCM. Although the existing literature in SCM and sustainability has started to use the theoretical lens of social identity theory (Min et al., 2008; Linnenluecke et al., 2009), these efforts are broadly conceptual, focusing on the benefits of a shared identity in supply chain relationships and/or a sustainable organisational identity in sustainability implementation. Using a multiple-case study, this research establishes a link between identity issues and supply chain relationships. Further, it enables future studies to build on the understandings of identity issues as part of sustainability implementation in supply chains. The contribution of this research is now discussed in detail below.

7.1.1 Complexity of identity issues in (sustainable) SCM

Firstly, this research sheds light on the complexity of identity issues in supply chains with a multiple-identity perspective, especially in the context of sustainability implementation. The existing literature tends to look at a single identity of an organisation or a supply chain. In detail, the literature in sustainability emphasises the importance and benefits of a sustainable organisational identity (Chen, 2011; Colbert & Wheeler 2002; Linnenluecke et al., 2009). The literature in SCM proposes the concept of a supply chain identity, highlighting the relational benefits generated by identification with a supply chain (Ireland and Web, 2007; Jamali et al., 2011; Ketchen & Hult, 2011; Min et al., 2008). The common point of the above conceptual papers is that they only focus on a single identity of an organisation or a supply chain. Thus, these studies ignore the existence of multiple identities as well as dynamics and complexity of the social identification process.

In comparison to the existing SCM literature which “considers identity to be a monolithic phenomenon” (Balmer & Greyser, 2002: 73), this research addresses the complexity of the identity issues in the sustainable supply. The first complexity of the identity issues is about the multiple identities in sustainable supply. Proposition 1a suggest that sustainability implementation brings changes to the organisations and their supply chain relationships. Organisations implementing sustainability in their supply chains face at least two identities: the core identities and the sustainability identities of the organisations. There might be potential conflicts between the core identities and the sustainability identities, subject to the operating context of the focal organisations and the identity regulation/communication approach.

The second type of identity complexity is about the level of shared identities. Proposition 1c and 1d suggest that the idea of a supply chain identity might be too simplistic, and there can be shared identities at the organisational level (organisational identity), dyadic level (relational identity), and network level (e.g. network identity and supply chain identity). Even in the absence of a supply chain identity, a sustainability identity at the organisational level or a relational identity can increase the level of commitment, sharing, and communication in sustainable supply. Notably, Proposition 1e proposes that organisational identities, relational identities, and network identities have mutual impacts on each other.

Third, identity issues in sustainable supply are complex because of the roles that different stakeholders play in the social identity processes. The SCM literature proposes the concept of a supply chain identity (Ireland and Web, 2007; Jamali et al., 2011; Ketchen & Hult, 2011; Min et al., 2008). The sustainability literature proposes the concept of a sustainable organisational identity (Chen, 2011; Colbert & Wheeler 2002; Linnenluecke et al., 2009). Both of these concepts are suggested from the focal organisation’s perspective. Propositions 2, 3, and 4 suggest that leaders, boundary spanners (e.g. procurement staff) and external stakeholders (e.g. suppliers) all play an important role in the social identity processes in supply chains.

7.1.2 Functions and dysfunctions of the identity issues in sustainable SCM

The literature highlights the benefits of a sustainable organisational identity or a supply chain identity (for the literature on sustainability, refer to Chen, 2011; Colbert &

Wheeler 2002; Linnenluecke et al., 2009. For the literature in SCM field, refer to Ireland & Web, 2007; Jamali et al., 2011; Ketchen & Hult, 2011; Min et al., 2008). Little is known about the functions and dysfunctions of the identity issues in supply chains, especially in the context of sustainable supply. Notably, identity issues exist regardless of the organisation's awareness of and approaches to these issues. This research contributes to the literature by providing a bigger picture to the impacts of identity issues on the sustainability implementation in supply chains. It discusses both the functions (refer to Propositions 1c and 1d) and dysfunctions of identity issues (refer to Proposition 1b) in sustainable SCM.

7.1.3 Mechanisms of identity formation in supply chains

The existing SCM literature focuses on the benefits and importance of shared identities in supply chain relationships and sustainability implementation (Chen, 2011; Colbert & Wheeler 2002; Ireland and Web, 2007; Jamali et al., 2011; Ketchen & Hult, 2011; Linnenluecke et al., 2009; Shanley & Peteraf, 2004). There is little SCM research exploring the mechanisms of identity formation in supply chains. Min et al. (2008) represent the only conceptual framework using this type of mechanism. Their framework assumes there is a unified supply chain identity. It ignores the possibility of multiple identities and complexity of identity issues in supply chains. The framework of Min et al. (2008) focuses on the supply chain level of the antecedents of a supply chain identity, such as supply chain compatibility, supply chain image, supply chain association, and economic independence. It doesn't consider social identity formation in supply chains as a socially negotiated process, which is suggested by many social identity researchers (e.g. Cornelissen et al., 2007; Lauring & Thomsen, 2008, 2009; Thomas et al., 2011; Thomsen & Lauring, 2008).

Hence, this research answers the fundamental questions related to the mechanisms of identity formation in supply chains: how can organisations manage and communicate their identities in their supply chain management activities, particularly in their sustainability implementation in supply chains? Four important elements of identity management are defined: formalizations, communications, organisational image management, and consistency in identity regulations and communications. Based on an empirical study, this research provides a conceptual framework to demonstrate the context, process, and outcome of the social identification process in

sustainable supply. In addition to this framework, this research defines factors affecting identity formation and identification at the organisational level (the conflicts/compatibility between the core identity and the sustainability identity, and the purpose of sustainability implementation) and individual level (stakeholders' identity assessment and comparison). Therefore, besides the macro and supply chain level factors, this research sheds light on how organisational and individual level factors influence identity formation. It provides profound insights into how organisations can manage their identities and communicate their organisational identities to their internal and external stakeholders. This research demonstrates how the perceptions of the internal and external stakeholders on organisational identities influence the identity issues at the relational and supply chain level (refer to Propositions 3a, 3b, 4a, and 4c).

7.1.4 Typologies of identity management and responses of stakeholders

The final contribution of this research is a typology of organisations' identity management during sustainable supply implementation. Proposition 2c suggests that leader's purpose of and proactivity in identity regulations and communications during sustainability implementation in supply chains have great impacts on the behaviours of internal and external stakeholders in response to sustainable supply via the actually perceived identity of the external stakeholders. Accordingly, Propositions 3a and 4c propose that both the internal stakeholders (e.g. procurement staff) and external stakeholders (e.g. suppliers) behave according to the identities that they perceived in the focal organisation's sustainability implementation in supply chains. Their perceptions are influenced by the leaders' identity regulation and communication approaches.

The typology of organisations' identity management during sustainable supply implementation defines four types of identity regulation and communication approaches: leader, silent executor, window dresser, and resistor. Accordingly, this defines four types of behaviours and attitudes of internal stakeholders (e.g. procurement practitioners) in response to the identity regulation and communication approaches: proactive, resistant, disappointed, and disengaged. Also defined are four types of behaviours and attitudes of external stakeholders (e.g. suppliers): committed, passive, compliant, and self-benefit seeking. These typologies help SCM researchers

to understand more about the interactions between the focal organisation and its internal and external stakeholders in sustainable SCM.

7.2 Implications for organisations

Sustainability implementation potentially brings various changes to both the focal organisations and their supply chain stakeholders. These changes include 1) addition of new specifications; 2) complexity involved in the decision-making process; 3) needs for more inter-organisational communications and cooperation; 4) changes in the supply chain relationship scope; and 5) needs for creativity and flexibility in inter-organisational relationships and sustainability implementation. To confront these challenges, organisations and their stakeholders need to make changes within the organisation and the supply chains accordingly. There are several concerns emerging from this research: the relationship between the organisations' existing operations and sustainable supply, change management during sustainable supply implementation, inter-organisational relationships, psychological factors during sustainable SCM, and leadership. If the organisations ignore these concerns, they will face the risks of failing in their sustainable supply efforts. More seriously, overall organisational performance will also be affected. The following sections discuss these concerns and make relevant recommendations.

7.2.1 Aligning sustainability implementation with existing operations

Sustainability implementation brings potential conflicts and competing priorities between the organisations' sustainability practices and their existing operations. For example, in both the IO1 and IO3 cases, emphasizing the environmental aspect of sustainability might not be suitable for organisations focusing on the social aspect of sustainability (e.g. humanitarian issues). Meanwhile, it is challenging to establish partnerships with the majority of the supply chain stakeholders in project-based, complicated supply chains. Therefore, sustainability implementation should be aligned with the organisations' existing operations, its operating environment, and supply chain characteristics.

7.2.2 Change management during sustainability implementation

Sustainability implementation brings changes and complexities into the organisations' daily operations and their relationships with their internal and external relationships. Organisations need to rethink their overall business strategies when integrating sustainability implementation into their operations. The necessary changes may include the following: 1) integrating sustainability into the organisations' overall strategy; 2) reviewing and adjusting the policies, procedures, and other related formalization; 3) reviewing and adjusting organisational structures; 4) capacity building of the internal and external stakeholders; 5) conversation with the internal and external stakeholders; 6) establishing sustainability-related culture and norms; and 7) ensuring consistency between the organisations' strategy, formalizations, planning, execution and communications during sustainable supply implementation. IO2's gradual and inclusive approach in its green procurement implementation is a good example of how organisations facilitate and manage the changes brought by sustainability implementation.

7.2.3 Rethinking inter-organisational relationships in terms of the bigger picture

Sustainability implementation requires organisations move from the traditional dyadic relationships with their supply chain stakeholders to a network approach. There are two reasons for this recommendation. First, organisations' sustainable implementation depends heavily on the needs and requirements of their customers and the end users. Second, the level of complexity, innovation, creativity and inter-organisational learning in sustainable supply may require at least three parties in the same project. A good example is that in the IO2 case, some Chinese suppliers initiate the idea of establishing a learning network among the Chinese suppliers.

7.2.4 Considering human-related factors in sustainable SCM

Prevailing SCM research and corporate thinking focus on the strategic and operational level of sustainable supply. This research uncovers that human-related factors play an important role in sustainable supply. The perceptions, behaviours, and attitudes of the boundary spanners (e.g. leaders, procurement managers, representatives of the suppliers, and other stakeholders) have great impacts on sustainability implementation. Ignoring these factors may not only lead to the failures of

sustainability implementation but also the harms to the overall organisational performance. For example, if the individuals perceive that their organisations only use sustainability as a marketing tool, they have low motivation in making changes required by sustainable supply. Furthermore, they may feel disappointed with the organisational leaders and the organisation.

7.2.5 Leadership in sustainable SCM

Strong leadership is vital in sustainability implementation. Data from the IO1 case, the IO3 case, and most of the companies in the preliminary study reveals that there is a general lack of effective leadership during sustainable supply implementation. First, a considerable number of leaders prioritize the economic aspect of sustainability in comparison to the environmental and social aspects of sustainability. Sustainability is implemented with limited actions as a means to promote the organisational image or to face the pressure from the external stakeholders. If the leaders don't believe in achieving sustainability themselves, both the internal and external stakeholders will be demotivated in seeking sustainability implementation. In the cases of window dressers of sustainability, both the internal and external stakeholders may decrease their motivation in and commitment to sustainability implementation. More seriously, they will feel disappointed with and distrust these leaders and the organisations. Second, there is a lack of shared vision of sustainable supply among the leadership team. The leaders' disagreements lead to inconsistency between the organisations' strategy definition, communications, and execution of sustainability implementation. This inconsistency creates confusion and distrust within the organisations and in their supply chain relationships.

7.3 Limitations of this research and recommendations for future studies

This research investigated large institutions in the public sector. Their operating environment and supply chain characteristics may be different from those of the organisations in the private sector, especially smaller size firms. First of all, these organisations have higher ethical standards and stricter procurement procedures than those in the private sector. Second, unlike the companies in the private sector which regard making profits as their main tasks, the case organisations may have different mandates, such as humanitarian issues and social development. At some extent,

these organisations already include the social aspect of sustainability in their daily operations. Therefore, they may have different priorities in and approaches to sustainability implementation in comparison to the private sector organisations. Except IO1, the organisations in the BIO system (including IO2 and IO3), unlike many private sector organisations, may not have many needs for using sustainability to promote their organisational image. Third, in terms of supply chain structures, except the IO1 case, the other organisations in the BIO system (including IO2 and IO3) and most of the public sectors are public funded. Even in the IO1 case, IO1's clients/donors are generally governments, public organisations, and large foundations. The funding sources of these organisations brought different supply chain structures to these organisations, especially in power allocation in supply chains. Generally speaking, donors/funders have more power than these organisations in their supply chains, if compared with the organisations in the private sector. Therefore, public organisations may have different stakeholders and stakeholder engagement approaches in comparison to the private sectors. Last, the case organisations have larger and more complex supply chain structures in comparison to many companies in the private sectors, especially those with small or medium sizes. Consequently, the social identity issues might be complicated in the case organisations.

In considering the above-mentioned differences, it may be necessary to conduct further research in the private sector so as to test the generalisation of the findings more widely. Further, organisations' operating environment and the supply chain characteristics have a great impact on the organisations' identity issues by defining whether they have an identity conflict between their core identities and their sustainability identities. Hence, in future, it may be worthwhile to conduct research on the organisations with different sizes and in different industry sectors.

This research provided initial exploration on the complexity of social identity issues in sustainable supply. It highlighted the importance of shared identities in sustainable supply and emphasised the roles of different stakeholders (such as leaders, boundary spanners, and external stakeholders) in the identity regulation, negotiation, and formation. It makes sense to have a more nuanced view of the identity processes and roles of different stakeholder groups play in these processes. For example, how can leaders proactively manage the identity issues in sustainable supply? How can leaders

influence the identity perception of the internal and external stakeholders? How do internal and external stakeholder conduct identity negotiations during sustainable supply? What are the roles of individuals in the identity issues in sustainable supply?

Due to the sustainability implementation element of the organisations being studied, the interviewees in this study are mainly the boundary spanners in the buyer-supplier relationships. However, the research findings reveal that other supply chain stakeholders, especially donors in the public sector and the customers may have an impact on the organisations' sustainability implementation decisions. For example, in the three cases, the governments, donors, funders, and clients are the actual decision makers on whether to integrate sustainability criteria into the focal organisations' procurement practices. In the preliminary study, the preferences of the customers and end users are closely related to the Chinese companies' CSR practices. Therefore, further research opportunities exist in studying other supply chains' stakeholders.

This research sought to study supply chain relationships with a network perspective. However, the majority of the organisations being studied still kept dyadic relationships with their supply chain stakeholders, either in their traditional SCM or sustainable SCM. The research findings reveal there is a trend for organisations to cooperate with their supply chain stakeholders beyond the dyadic basis. Therefore, there are opportunities to study the stakeholder engagement in sustainable supply with a triad or even network perspective.

Lastly, a further research opportunity concerns research methods. Since both the studies on sustainable supply and social identity issues in supply chains are relatively new topics in the SCM field, this research adopted a qualitative approach. To test the generalisation of the research findings, especially the impact of each parameter in the framework, it could be meaningful to conduct more quantitative research to examine the social identity issues in sustainable supply. As suggested by Alvesson and Willmott (2002), in-depth and longitudinal studies based on participant observation may provide a more profound understanding of the complex and developmental process of social identity issues.

APPENDIX A: DATA COLLECTION FOR THE PRELIMINARY STUDY

The key data collection instruments for the preliminary study were interviews to the following three types of interviewees: managers (in short “mgr.”) in focal companies (in short “FC”), suppliers (“S”) and NGOs. Table 44 summarises these interviewees. Semi-structured interviews are marked as “SS”.

Ref	Date	Interview Method	Length (Min)	Country of origin	Location of office /plant	Industry/ Org. Type	Position
FC-01	06/09/12	Telephone, SS	98	USA	Beijing	IT	CSR Mgr.
FC-02	19/10/12	Face-to-face, SS	63	USA	Guangdong	Food	Sustainable SCM
FC-03	20/09/12	Face-to-face, SS	45	China	Guangdong	Flooring	Marketing mgr.
FC-04	10/10/12	Face to face, SS	85	China	Guangdong	Architecture	General mgr.
FC-05	26/10/12	Telephone, SS	60	China	Guangdong	Coating	CSR mgr.
FC-06	26/10/12	Telephone, SS	46	China	Guangdong	Coating	Procurement mgr.
FC-07	01/11/12	Telephone, SS	52	China	Guangdong	Coating	Procurement mgr.
FC-08	01/11/12	Telephone, SS	50	China	Guangdong	Coating	SHE mgr.
FC-09	02/11/12	Telephone, SS	28	China	Guangdong	Coating	R&D mgr.
FC-10	06/11/12	Telephone, SS	51	China	Guangdong	Coating	Employee relations
FC-11	16/11/12	Telephone, SS	50	China	Guangdong	Coating	Marketing mgr.
FC-12	28/12/12	Skype, SS	48	China	Guangdong	Furniture	R&D mgr.
FC-13	30/12/12	Skype, SS	53	China	Guangdong	Furniture	Marketing mgr.,
FC-14	31/12/12	Skype, SS	58	China	Guangdong	Furniture	Procurement mgr.
FC-15	05/01/13	Skype, SS	45	China	Guangdong	Furniture	Chain shops mgr.,
FC-16	06/01/13	Skype, SS	59	China	Guangdong	Furniture	Operations mgr.,
FC-17	14/09/12	Face to face	30	China	Guangdong	Furniture	CEO
FC-18	11/10/12	Face to face	20	China	Guangdong	Coating	Sales mgr.
FC-19	18/10/12	Telephone	22	USA	Guangdong	Retail	CSR mgr.
FC-20	30/12/12	Telephone	35	USA	Guangdong	Theme park	CSR mgr.
FC-21	26/03/13	Telephone	15	Germany	Shanghai	Consul-ting	Marketing mgr.
FC-22	26/03/13	Telephone	25	Germany	Shanghai	Consul-ting	BD mgr.
S-01	15/09/12	Face to face	59	China	Guangdong	Furniture	General mgr.
NGO-01	24/10/12	Face to face	70	China	Beijing	NGO	Director
NGO-02	29/08/12	Skype	30	China	Beijing	NGO	Project mgr.
NGO-03	04/09/12	Face to face	65	China	Guangdong	NGO	Chief
NGO-04	11/09/12	Face to face	80	China	Guangdong	NGO	Project mgr.
NGO-05	10/10/12	Skype	20	USA	Guangdong	NGO	Training mgr.
NGO-06	23/10/12	Face to face	90	China	Beijing	NGO	Consultant
NGO-07	23/10/12	Face to face	15	China	Beijing	NGO	Deputy director

Table 46 Summary of interviewees in the preliminary study

Another resource of evidence was the researcher's 2-month participation observation in BBC Climate Asia project. This project was initiated by BBC. The purpose of this project was to explore Asian people's attitudes towards Asia climate change and their environmental awareness. The methodologies of this project were interviews and surveys (hard copies) to business managers, governmental officers, NGOs, researchers, opinion leaders, and normal citizens. Field visits were also made to several areas. The project in China was coordinated by China Association for NGO cooperation (<http://www.cango.org/>). The project in Guangdong province was coordinated by Guangzhou Association for NGO cooperation. The researcher had two roles in this project: One role was a volunteer, coordinating the survey collection of volunteers in Guangzhou; acting as the assistant to the project leader; participating in the interviews by China Association for NGO cooperation. The other role was a researcher: conducting participant observation the inter-organisational relationships involved in this project and the sustainability-related status in Guangdong province. Besides interviews and participation observation, the researcher also participated in two sustainability-related workshops, which provided an overview of the sustainability issues in China.

APPENDIX B: DETAILS OF INTERVIEWEES IN CASE STUDIES

Case	Ref	Category	Date	Interview Method	Length Min.	Org. Type	Location
IO1	IO1-PM1	PM	08/10/13	Face to face	70	Headquarters	Denmark
IO1	IO1-PM2	PM	10/10/13	Face to face	46	Headquarters	Denmark
IO1	IO1-PM3	PM	17/10/13	Face to face	51	Headquarters	Denmark
IO1	IO1-PP1	PP	08/10/13	Face to face	52	Headquarters	Denmark
IO1	IO1-PP2	PP	17/10/13	Face to face	50	Headquarters	Denmark
IO1	IO1-PP3	PP	22/10/13	Skype	43	Country office	Maldives
IO1	IO1-PP4	PP	29/10/13	Face to face	60	Regional office	Denmark
IO1	IO1-PP5	PP	31/10/13	Face to face	22	Regional office	Panama
IO1	IO1-PP6	PP	29/11/13	Face to face	44	Country office	Pristina
IO1	IO1-PP7	PP	05/12/13	Skype	14	Regional office	Argentina
IO1	IO1-PP8	PP	23/11/14	Skype	30	Headquarters	Denmark
IO1	IO1-S01	Supplier	22/10/13	Face to face	55	Transportation	Denmark
IO1	IO1-S02	Supplier	20/11/13	Telephone	36	Travel	South Africa
IO1	IO1-S03	Supplier	11/12/13	Telephone	47	Medicine	USA
IO1	IO1-S04	Supplier	16/12/13	Skype	62	LLIN	Switzerland
IO1	IO1-S05	Supplier	18/12/13	Telephone	34	Medicine	Netherland
IO2	IO2- PM1	PM	24/10/13 07/11/14	Face to face Telephone	82 35	Headquarters	Denmark
IO2	IO2- PM2	PM	01/11/13	Face to face	60	Headquarters	Denmark
IO2	IO2-PP1	PP	30/10/13	Face to face	42	Headquarters	Denmark
IO2	IO2-PP2	PP	31/10/13	Face to face	52	Headquarters	Denmark
IO2	IO2-PP3	PP	05/11/13	Face to face	46	Headquarters	Denmark
IO2	IO2-PP4	PP	08/11/13	Face to face	57	Headquarters	Denmark
IO2	IO2-PP5	PP	19/11/13	Telephone	46	Country office	Kyrgyzstan
IO2	IO2-PP6	PP	21/11/13	Face to face	64	Regional office	Denmark
IO2	IO2-PP7	PP	21/11/13	Face to face	56	Headquarters	Denmark
IO2	IO2-S01	Supplier	04/11/13	Telephone	60	Contraceptive	China
IO2	IO2-S02	Supplier	07/11/13	Telephone	48	Contraceptive	India
IO2	IO2-S03	Supplier	11/11/13	Telephone	53	Contraceptive	Thailand
IO2	IO2-S04	Supplier	12/11/13	Telephone	52	Contraceptive	China
IO2	IO2-S05	Supplier	12/11/13	Telephone	50	Contraceptive	India
IO2	IO2-S06	Supplier	13/11/13	Telephone	46	Contraceptive	India
IO2	IO2-S07	Supplier	14/11/13	Telephone	34	Pharmaceutical	USA
IO2	IO2-S08	Supplier	26/11/13	Telephone	71	Pharmaceutical	Nether-lands
IO2	IO2-S09	Supplier	29/11/13	Telephone	32	Contraceptive	Malaysia
IO3	IO1-PM1	PM	18/12/13	Face to face	100	Regional office	Denmark
IO3	IO3-PM2	PM	13/01/14	Telephone	83	Country office	Bratislava
IO3	IO3- PP1	PP	13/12/13	Face to face	48	Regional office	Denmark
IO3	IO3-PP2	PP	17/12/13	Telephone	62	Country office	Israel
IO3	IO3-PP3	PP	9/01/14	Face to face	60	Regional office	Denmark
IO3	IO3-S01	Supplier	23/01/14	Telephone	62	Procurement services	Germany
IO3	IO3-S02	Supplier	24/01/14	Telephone	61	Consultancy	UK

Table 47 Summary of Interviewees in the case study

In the all three cases, the interviewees included both procurement staff in focal organisations and suppliers. There were two categories of interviewees from the focal organisations: procurement policymakers and procurement practitioners. Table 47 summarises the interviewees. The procurement policymakers interviewed are marked

with “PM”. The procurement practitioners interviewed are marked with “PP”. The supplier interviewed are marked as “S”.

APPENDIX C: CASE PROTOCOL

This case study protocol adopts the template of Brereton et al. (2008).

1. Purpose of the research

With the theoretical lens of social identity theory, this research aims to explore how firms in supply chains interact with each other when facing sustainability thinking/ implementation in supply chains, and what are the impacts of the dynamics of inter-organisational relationship on the sustainability implementation within a supply chain. And the following research questions will be asked:

RQ1 How do focal organisations engage their supply chain stakeholders in sustainable SCM using social identity thinking?

RQ2 What are the specific identity issues relating to inter-organisational relationships in a sustainability context?

2. Design

A multiple-case study will be used as the research strategy. 3 cases will be conducted, with interviewees from both the focal organisations' side and the suppliers' side.

The unit of analysis

The unit of analysis for this research is defined as the inter-organisational relationships within the sustainability projects initiated by focal organisations. At the same time, the inter-organisational relationship that the researcher is going to study at in this research might cover any potential members at any stage in the supply net of focal organisations, as long as they are involved in the sustainability projects initiated by the focal organisations being studied.

Case selection criteria

Cases are selected from those organisations meeting the following criteria:

- Case organisations are based in developed countries. Ideally, the case organisations have branches and suppliers in developing countries or emerging economies

- The case organisations have different supply chain structures. Ideally, their supply chains cover multiple industries.
- Case organisations should have considerable power. Ideally, they have policy-making power over sustainability issues.
- There should be access to the Tier-1 suppliers at least.

Participant selection criteria

Interviewees are from both the focal organisations and their suppliers. The interviewees are chosen from those who are involved in the focal organisations' inter-organisational relationships with their supply chain stakeholders and whose knowledge of sustainable SCM is complementary to each other. In order to understand the entire supply chain and avoid the elite bias, within each focal organisation, multiple interviewees should be chosen from both managerial and operational levels, and from both the headquarters and the regional/country offices.

Data collection instruments

Multiple resources to evidence are used to ensure the triangulation during case evaluation: documents, semi-structured interviews, direct observation and participant observation. Semi-structured interviews are the main instrument because the social identification process is implicit. The interview questions in Appendix E present a guidance to steer the data collection process and to ensure consistency and validity across the cases. In each case, secondary data should be collected before conducting the interviews, so as to enable the researcher to have a basic understanding of the organisations' background and the information about their sustainability projects.

The focal organisations' publications and documents also reveal these organisations' communicated organisational identity, which will be triangulated with the data from the semi-structured interviews. Direct observations and participant observations are used as another source of evidence. The field notes document the direct observations of interviewees' responses and interview sites, informal discussions with interviewees and the reflections of the researcher. The field notes also document the participant observation during researcher's 6-month stay in Denmark, where the daily

procurement and sustainability practices of the three focal organisations are observed on a daily base.

3. Case Study Procedures and Roles

1) General

The focal organisations being studied are large in sizes, and their country offices and suppliers are all over the world. Hence, it is impossible to conduct all interviews face to face. In principle, interviewees in Denmark will be interviewed face to face. And the other interviewees will be interviewed via Skype or telephone. And this principle of interview approaches will be applied to all the cases.

Background of the research will be introduced before or at the beginning of the interview. Each interview lasts about one hour. All interviews are audio-recorded, and notes are taken during and after each interview. The confidentiality of the interview is ensured. English is the major interview language. Different languages may be used according to the status of the interviewees. For example, Chinese mandarin is used in the interviews with Chinese suppliers.

2) Pre-interview

- Contact perspective organisations via email or telephone call to 1) explain the purpose of the research; 2) assure confidentiality and anonymity.
- Plan interview in advance by double checking all the equipment and documents needed for the interview, such as a digital recorder, a notebook, participant information sheets, and interview questions sheets.

3) Post-interview

- Upload the recorded interviews to a computer and make backup copies.
- Complete field notes.
- Transcribe recording, translate, and make data reduction, complete a write-up.
- If needed, modify or add propositions and research questions.

4. Data Collection

1) The following data will be collected:

- All the interviews will be auto-recorded, with notes taken during and after the interview.
- Document all interactions with the case organisations and suppliers, including emails and telephone calls.
- Keep a diary documenting the course of the fieldwork for each case: the procedure, provisional analysis and interpretations, and learning experiences (reflection about the interview, the process, data analysis and development of theory).
- Document all the other related information, like the background information about the company, news report, picture taken at the workplace of the case firms (if permitted), the prints given by the case firms, etc.

2) *Data storage*

- All the data will be stored with confidentiality considerations.
- At least three backup copies of all the data will be kept via computer, removable hard disk and the university database under “libraries” catalogue. The backup data will be updated every day.

5. **Analysis**

1) Identify the criteria for interpreting case study findings, and identify which data elements are used to address which research question/sub-question/proposition and how the data elements will be combined to answer the questions. (Refer to the key constructs in Appendix D).

2) Consider the range of possible outcomes and identify alternative explanations of the outcomes, and identify any information that is needed to distinguish between these.

3) The analysis should take place as the case study task progresses.

6. **Plan Validity**

The validity of the case study should be ensured via the following means:

1) *General* - check plan against Höst and Runeson’s (2007) checklist items for the design and the data collection plan.

2) *Construct validity* - show that the correct operational measures are planned for the concepts being studied. Tactics for ensuring this include using multiple sources of

evidence, establishing chains of evidence, expert reviews of draft protocols and reports.

3) *External validity* – identify the domain to which study finding can be generalised.

This research uses multiple-case studies to investigate outcomes in different contexts.

APPENDIX D: INTERVIEW GUIDE FOR CASE STUDIES

Part 1 Interviews to the focal organisations

Reference No.: Name of Interviewee: Organisation: Department: Position:
 Tel: E-mail: Date: Duration:

Constructs	Variables	Questions	Origin
Core organisational identity	<ul style="list-style-type: none"> · Important traits · Values and beliefs Behaviours · Organisational identity orientation 	<ol style="list-style-type: none"> 1. How do you describe your organisation? 2. What are the important values and beliefs of your organisation? 3. How do you describe your job? (Prompts: What you do? How do you do it? Why do you work in this way? Why they consider this type of behaviours to be important? What is important to you in your daily work?) 4. How do you view the relationships with the supply chain stakeholders of your organisation? Prompts: What are the important supply chain stakeholders for your organisations? Why are they important? 	Bernstein, 1986 Balmer, 1996 van Rekom, 1994, 1997 Brickson, 2007 van Rekom, 1994, 1997
Organisational identity in sustainable SCM	<ul style="list-style-type: none"> · Anticipated traits · Actual important traits · Values, beliefs behaviours · Organisational identity orientation 	<ol style="list-style-type: none"> 5. What are your personal understandings of sustainable procurement? Prompt: In your opinion, what is important for sustainable procurement? 6. How do you describe the key sustainable procurement projects in your organisation? (Prompts: What are the key sustainable procurement projects in your organisation? How do you implement these sustainable procurement projects? Why these projects are chosen? What are the major stakeholders in your sustainable procurement project? How do you liaise with your supply chain stakeholders in these projects? Why do you liaise with them in these ways?) 	Balmer, 1996 Bernstein, 1986 van Rekom, 1994, 1997 Brickson, 2005, 2007
Relational identity in traditional procurement practices	<ul style="list-style-type: none"> · Important traits of relational identity · Values, beliefs, and behaviours · Relational identification 	<ol style="list-style-type: none"> 7. How do you describe your relationships with suppliers in regular procurement practices? 8. How do you liaise with suppliers in your regular procurement practices? Why do you liaise with them in this way? 9. How does the relationship between your organisation and your suppliers influence the following factors in the relationships? (Prompts: Trust, shared norms, shared goals, commitment, information sharing, relational investment) 	Bernstein, 1986 van Rekom, 1994, 1997 Corsten et al., 2011
Relational identity in sustainable procurement	<ul style="list-style-type: none"> · Important traits of relational identity · Values, beliefs, and behaviours · Relational identification 	<ol style="list-style-type: none"> 10. How do you describe your relationships with suppliers in your sustainable procurement practices? 11. How do you liaise with suppliers in your sustainable procurement practices? Why do you liaise with them in this way? 12. How does the relationship between your organisation and your suppliers influence the following factors in the relationships? (Prompts: Trust, shared norms, shared goals, commitment, information sharing, relational investment) 	Bernstein, 1986 van Rekom, 1994, 1997 Corsten et al., 2011

Part 2 Interviews to suppliers

Reference No. : Name of Interviewee: Organisation: Department: Position:
 Tel: E-mail: Date: Duration:

Constructs	Variables	Questions	Origin
Core organisational identity	<ul style="list-style-type: none"> · Important traits · Values and beliefs Behaviours · Organisational identity orientation 	1. How do you describe the focal organisation? 2. What are the important values and beliefs of the focal organisation? 3. How do you describe the job of procurement staff in the focal organisations? (Prompts: What they do? How do they do it? Why do they work in this way? Why you consider this type of behaviours to be important for them? What are important to them in their work?) 4. How do you view the focal organisation's relationships with its supply chain stakeholders? (Prompts: What are the important supply chain stakeholders for the focal organisations? Why are they important?)	Bernstein,1986 Balmer , 1996 van Rekom, 1994, 1997 Brickson, 2007 van Rekom, 1994, 1997
Organisational identity in SP	<ul style="list-style-type: none"> · Anticipated traits · Actual traits · Values, beliefs behaviours · Organisational identity orientation 	5. What are your personal understandings of sustainable procurement? (Prompt: In your opinion, what is important for sustainable procurement?) 6. How do you describe the key sustainable procurement projects of the focal organisation? (Prompts: What are the key sustainable procurement projects of the focal organisation? How does the focal organisation implement these sustainable procurement projects? Why these projects are chosen? What are the major stakeholders in these sustainable procurement projects? How does the focal organisation liaise with you in these projects? Why do they liaise with you in these ways?)	Balmer, 1996 Bernstein,1986 van Rekom, 1994, 1997 Brickson, 2005, 2007
Relational identity in traditional procurement practices	<ul style="list-style-type: none"> · Important traits of relational identity · Values, beliefs and behaviours · Outcome of Relational identification 	7. How do you describe the relationships between you and the focal organisation in its regular procurement practices? 8. How does the focal organisation liaise with you in its regular procurement practices? Why do they liaise with you in this way? 9. How does the relationship between you and the focal organisation influence the following factors in the relationships? (Prompts: Trust, shared norms, shared goals, commitment, information sharing, relational investment)	Bernstein,1986 van Rekom, 1994, 1997 Corsten et al., 2011
Relational identity in sustainable SCM?	<ul style="list-style-type: none"> · Important traits of relational identity · Values, beliefs, and behaviours · Relational identification 	10. How do you describe the relationships between you and the focal organisation in its sustainable procurement? 11. How does the focal organisation liaise with you in its sustainable procurement? Why do they liaise with you in this way? 12. How does the relationship between the focal organisation and your organisation influence the following factors in the relationships? (Prompts: Trusts, shared norms, shared goals, commitment, information sharing, relational investment)	Bernstein,1986 van Rekom, 1994, 1997 Corsten et al., 2011

APPENDIX E: KEY PROCUREMENT CATEGORIES OF IO1, IO2, AND IO3

Table 48 summarises IO1's major procurement categories in 2013. Table 48 reports that services counted more than 70% of IO1's total procurement value in 2013.

Rank	Group of Goods/Services	% of value	% of orders
1	Building and facility construction and maintenance services	30%	7%
2	Security and safety services and public order	18%	9%
3	Motor vehicles and parts, accessories and components, including other transport equipment	16%	14%
4	Engineering and research and technology based Services	9%	9%
5	Medical equipment and accessories and supplies	7%	2%
6	Management and business professionals and administrative services	6%	7%
7	Transportation and storage and mail services	5%	24%
8	Humanitarian aid, mine action and rural development services	3%	3%
9	Pharmaceuticals including contraceptives and vaccines	3%	0%
10	Information technology broadcasting and telecommunications	3%	4%

Table 48 Major procurement categories for IO1 in 2013
(Summarised from 2013 Annual Statistical Report on BIO Procurement)

Table 49 summarises the major procurement categories for IO2 in 2013. As indicated in Table 49, health products (including pharmaceuticals, medical equipment, accessories, and supplies) occupy near 50% of IO2's total procurement value in 2013.

Rank	Group of Goods/Services	% of value	% of orders
1	Pharmaceuticals including contraceptives and vaccines	35%	2%
2	Apparel and luggage and personal care products	12%	0.5%
3	Management and business professionals and administrative services	11%	15%
4	Medical equipment and accessories and supplies	9%	2%
5	Transportation, storage and mail services	7%	7%
6	Travel, food, lodging, and entertainment services	6%	32%
7	Education and training services	6%	17%
8	Building and facility construction and maintenance services	5%	3%
9	Editorial and design and graphic and fine art services	5%	6%
10	Information technology broadcasting and telecommunications	3%	3%

Table 49 Major procurement categories for IO2 in 2013
(Summarised from 2013 Annual Statistical Report on BIO Procurement)

Table 50 summarises the major procurement categories for IO3 in 2013. The figures in Table 50 only present IO3's headquarter procurement, which only counted a small portion of IO3's total procurement value. IO3's country offices procured a higher percentage of services than the headquarters.

Rank	Group of Goods/Services	% of value
1	Management and business professionals and administrative services	35%
2	Pharmaceuticals including contraceptives and vaccines	17%
3	Engineering and Research and Technology Based Services	16%
4	Medical equipment and accessories and supplies	6%
5	Information technology broadcasting and telecommunications	6%
6	Public utilities and public sector related services	4%
7	Shelter equipment and supplies, including tents, blankets, and mosquito nets	4%
8	Motor vehicles and parts, accessories and components, including other transport equipment	4%
9	Motor vehicles and parts, accessories and components, including other transport equipment	4%
10	Structures and building and construction and manufacturing components and supplies	4%

Table 50 Major procurement categories for IO3 headquarters in 2013
(Summarised from 2013 Annual Statistical Report on BIO Procurement)

APPENDIX F: ORGANISATIONAL STRUCTURES OF IO1, IO2, AND IO3

F.1 IO1's organisational structure

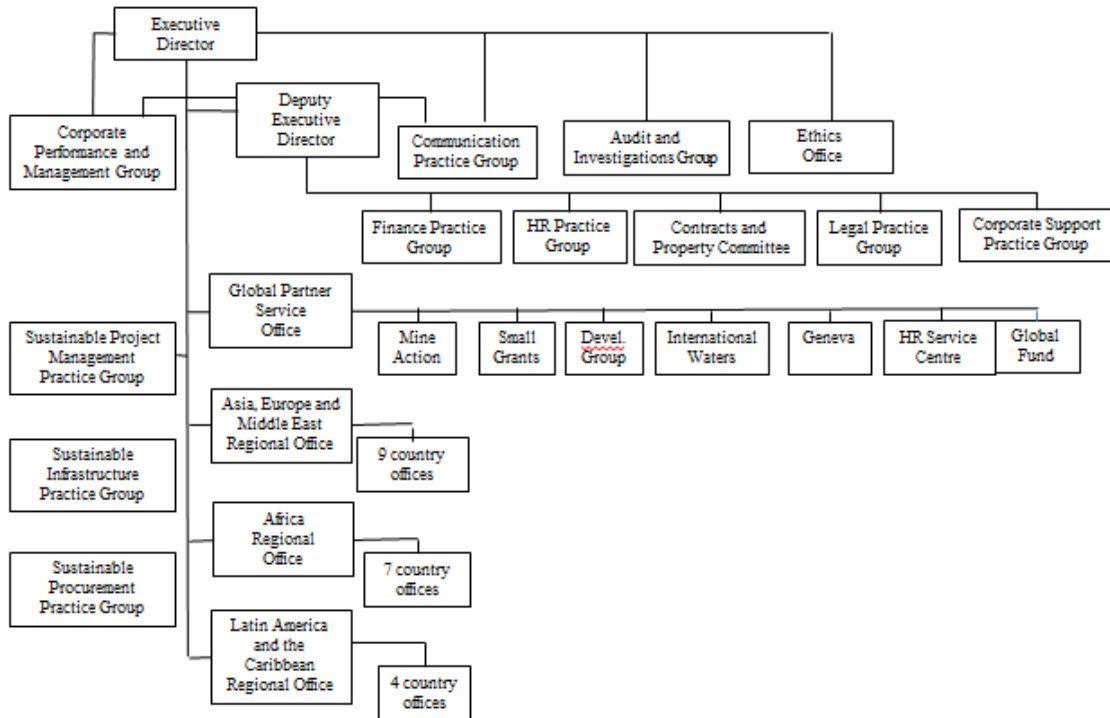


Figure 31 IO1's organisational structure
(Source: IO1 Global organisational structure, 2013)

F.2 IO2's organisational structure

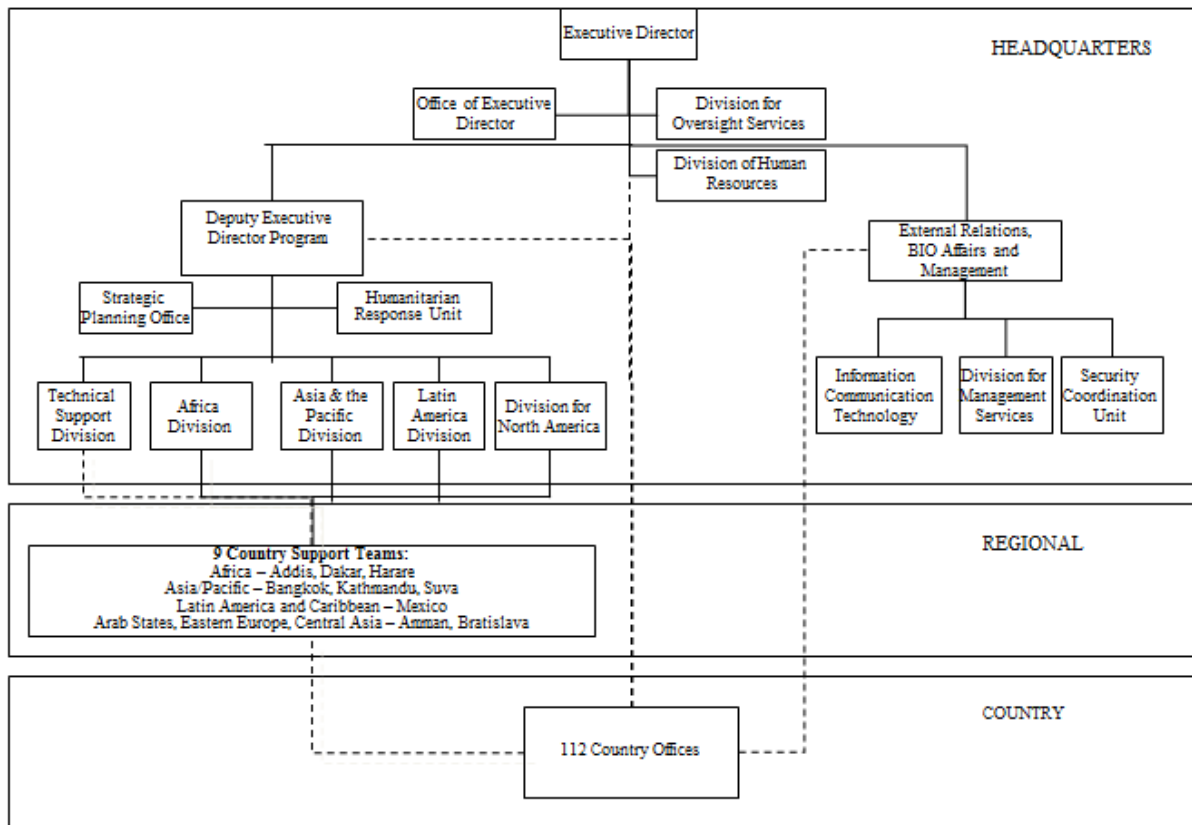


Figure 32 IO2's organisational structure
(Source: IO2 Global Organisational Structure, 2013)

F.3 IO3's organisational structure

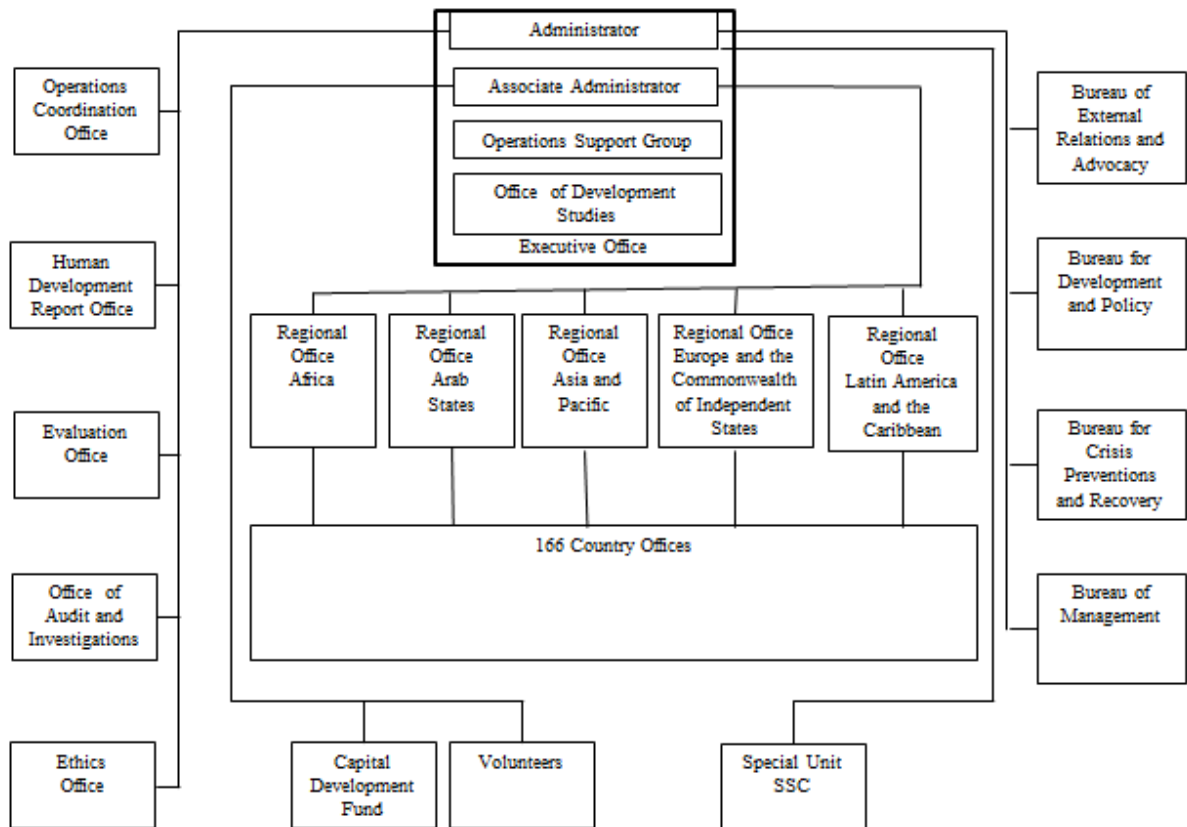


Figure 33 IO3's organisational structure
(Source: IO3's Global Organisational Structure, 2013)

APPENDIX G: KEY SUSTAINABLE PROCUREMENT PROJECTS

Projects	Purpose	Key stakeholders
On-line or on-site sustainable procurement workshops/training	To help participants develop a thorough understanding of sustainable procurement and provide various approaches to implementing and managing sustainable procurement in the BIO context.	IO1 staff; staff in other BIO organisations; external participants.
Sustainability assessment tool	To help the project managers in IO1 and other BIO organisations evaluate the sustainability-related impacts of the projects at the project planning stage	Project managers and procurement practitioners in IO1; other BIO organisations
National capacity-building	To help the national governments build up professional public procurement system through consultancy/advisory services	Governments; other BIO organisations and international organisations; suppliers
Global compact	To support the UN Global Compact and strongly encourage suppliers to do so	Global compact; suppliers
Sustainability expertise	To collaborate with professional and academic institutions in building up sustainable procurement related expertise	Professional and academic institutions
Supplier sustainability assessment tools ⁸	To source qualified suppliers that meet the environmental, social and financial criteria by including the sustainability criteria during bidding process	Suppliers
Including sustainability consideration at the project planning/design stage ⁹	To support and stimulate local development by addressing various sustainability issues at the project planning and design stage	IO1 project managers; suppliers (service providers)
Procurement from women-owned enterprises ¹⁰	To help women-owned businesses succeed in global value chains.	Women-owned business; NGOs helping women-owned business
Procurement from local enterprises	To stimulate the economy of the developing countries and reduce the total cost of the procured services/products	Local suppliers

Table 51 IO1's major sustainable procurement projects and the relevant stakeholders (Summarised from the rolling work plan of sustainability team in IO1, status up to end of 2013)

⁸ This project was still under development at the time of the researcher's data collection.

⁹ For example, designing toilets for female students in the African School project, so as to encourage African female students to go to schools).

¹⁰ This project was at the feasibility study stage at the time of the researcher's data collection.

Projects	Purpose	Key stakeholders
Green Procurement Strategy (2013-2018)	To define the five-year goals and strategy for IO2's green procurement To communicate with the stakeholders about the green procurement strategy	The IO2 Green Procurement Committee Procurement practitioners and suppliers in Category B
Green procurement implementation for Category B	To gradually involve the Category B suppliers in IO2's green procurement initiatives	The IO2 Green Procurement Committee Procurement practitioners and suppliers in Category B
The supporting formalizations for green procurement	To set up the supporting documents for IO2's green procurement implementation	The IO2's procurement policymakers and Green Procurement Committee World Health Organisations

Table 52 IO2's major green procurement projects and stakeholders

Projects	Purpose	Key stakeholders
The Vendor Outreach Programme	To increase vendors' awareness of IO3's sustainable procurement via on-line information	The IO3 sustainable procurement team and communication team
Practitioner's Guide to Sustainable Procurement	To define the sustainable procurement policy for IO3	The IO3 sustainable procurement team
The Joint BIO Action project	To conduct collaborative actions among these organisations as far as sustainable procurement in health products were concerned	World Health Organisation Five BIO organisations (including IO1, IO2, IO3 and the other two BIO organisations)

Table 53 IO3's major sustainable procurement projects and stakeholders

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