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# **The Role of Accounting in Supply Chains**

**By**

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

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## TABLE OF CONTENTS

Table of Contents.....	2
List of Figures.....	6
List of Tables.....	7
Key to Transcripts.....	8
Abbreviations.....	9
Acknowledgements.....	10
Declaration.....	11
Abstract.....	12

### **Chapter 1: Exploring New Forms of Accounting and Controls in the Context of Supply Chains**

1.1. Introduction .....	13
1.2. Research questions and research objectives .....	17
1.2.1. The role of performance measures in supply chains .....	17
1.2.2. The role of open book accounting in supply chains.....	20
1.2.3. The role of accounting and controls in supply chain identity .....	23
1.3. The background of the case company .....	24
1.4. Structure of the Thesis.....	25

### **Chapter 2: Relating Accounting and Controls to the Management of Supply Chains**

2.1. Introduction .....	27
2.2. Supply chain management: Emerging issues .....	28
2.3. The emergence of supply chain accounting and controls: Their technical and symbolic role .....	30
2.3.1. Accounting and controls for measuring the performance in supply chain network.....	33
2.3.2. Accounting and controls for increasing the transparency in supply chains .....	35

2.3.3. Accounting and controls for constituting supply chains .....	38
2.4. Conclusion.....	41

### **Chapter 3: Methodology**

3.1. Introduction .....	43
3.2. Philosophical assumptions underpinning my research.....	43
3.3. Interpretive Methodology .....	45
3.3.1. Ethnographic fieldwork.....	46
3.3.2. Gaining access.....	47
3.3.3. Data collection methods during fieldwork.....	51
3.4. Credibility of research .....	61
3.4.1. Data collection: multiple methods and “audit trail” .....	61
3.4.2. Data analysis: iterative process of data analysis .....	62
3.4.3. Writing a report: “Rich description and thick explanation” .....	63
3.5. Conclusion.....	64

### **Chapter 4: The Dynamics of Performance measurement system in Supply Chains**

4.1. Introduction .....	65
4.2. Theoretical framework and literature reviews.....	69
4.2.1. Accounting, controls and inter-firm relationships .....	69
4.2.2. Coercive and Enabling Approaches of Supply Chain Accounting and Controls.....	73
4.3. The supply chain operating environment and the performance measures in the manufacturing company .....	78
4.4. Coercive and enabling uses of performance measures within ABC and LTPs .....	85
4.4.1. Coercive formalization: sales maximization logic and opportunistic atmosphere .....	85

4.4.2. Enabling formalization: shared sales target and opportunities for growth .....	93
4.5. Coercive and enabling uses of performance measures within ABC and IKAs .....	102
4.5.1. Coercive formalization: CSL as an opportunity for control.....	102
4.5.2. Enabling formalization: CSL as an opportunity for improvement .....	106
4.6. Discussion .....	112
4.7. Conclusion.....	120

## **Chapter 5: Enabling Uses of Open Book Accounting In Supply Chain**

5.1. Introduction .....	122
5.2. Theoretical Framework and Literature Review.....	125
5.2.1. The Practice of Open Book Accounting .....	125
5.2.2. Enabling Uses of Controls and the Role of Liaison.....	131
5.3. Historical background of ABC's supply chain network: Moving from arm's length to full blown collaboration .....	136
5.4. Relationship between ABC and LTPs: the role of ABC's sales team at LTPs' operations and the practice of open book accounting .....	141
5.5. Relationship between ABC and IKAs: the role of implants and the practice of open book accounting.....	152
5.6. Discussion .....	163
5.7. Conclusion.....	171

## **Chapter 6: The Role of Accounting in Supply Chain Identity Formation: Integration, Differentiation and Fragmentation perspectives**

6.1. Introduction .....	173
6.2. Theoretical framework and Literature reviews .....	176
6.2.1. Identity and the supply chain relationship .....	176
6.2.2. Accounting and identity .....	180
6.2.3. The concepts of supply chain identity derived from accounting literature .....	185

6.3.	The emergence of ABC's supply chain network.....	189
6.4.	Integration perspective: harmonizing ABC and LTPs .....	191
6.5.	Differentiation perspective: conflicts and disagreement over key performance indicators between ABC and its customers (IKAs and LTPs) .....	202
6.6.	Fragmentation perspective: irreconcilable supply chain tensions between ABC and IKAs .....	212
6.7.	Discussion .....	219
6.8.	Conclusion.....	224

## **Chapter 7: Understanding Supply Chain Management: The Roles of Accounting and Controls in Action**

7.1.	Introduction .....	227
7.2.	Summary of findings and major conclusions .....	229
7.3.	Contribution of the study.....	232
7.3.1.	The “simultaneous uses” of coercive and enabling supply chain accounting and controls .....	233
7.3.2.	The enabling uses of open-book accounting.....	237
7.3.3.	The role of accounting in supply chain identity.....	239
7.4.	Limitations of the research .....	241
7.5.	Suggestion for future research.....	243
	References.....	245
	Appendix 1: Summary of Fieldwork Activities .....	258
	Appendix 2: Interview Guides.....	264

**List of Figures**

Figure 1      ABC’s Supply chain network.....80

Figure 2      Organization chart of area sales teams (ABC and LTPs).....144

## **List of Tables**

Table 1	Monthly Key performance Indicator (KPIs) for LTPs.....	95
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## Key to Transcripts

...	Pause
[...]	Ommission
[Comment]	Added comment to aid understanding

## **Abbreviations**

ANT	Actor Network Theory
IKAs	International key accounts
KPIs	Key performance indicators
LTPs	Long term partners
NDC	National Distribution Centre
NKAs	National key accounts
OBA	Open book accounting
PMS	Performance measurement system
TCE	Transaction cost economics

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Suaniza Mamat

January 2012

## Declaration

This is to declare that:

- I am responsible for the work submitted in this thesis.
- This work has been written by the author.
- All verbatim extracts have been distinguished and the sources have been specifically acknowledged.
- During the preparation of this thesis a number of papers were prepared. The remaining parts of the thesis are unpublished.

Doctoral Colloquium presentations:

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- The work has not previously been submitted within a degree programme at this or any other institution.

Signature: \_\_\_\_\_

Date:\_\_\_\_\_

## Abstract

Several studies of inter-firm accounting have shown how accounting and controls are implicated in the management of supply chains. This consideration is relevant because the supply chain network consists of firms whose activities transcend legal boundaries, and accounting and controls may therefore help to manage the complexities of supply chain processes. Much remains to be known about the operation of accounting and controls and the consequences to supply chains. This thesis reports on a field study of the uses of accounting and controls and their relationship to management of supply chains in a multinational food manufacturer and its network of customers (retailers and dealers). It aims to understand the ways in which, for instance, open book accounting and performance measurement systems were implicated in a network of supply chains. More specifically, it examines the uses of accounting and controls in the everyday operations of managing supply chains. To this end, the study draws on ethnographic materials collected through interviews, observations and review of documents involving managerial and operational employees from both the manufacturer as well as its customers. This thesis draws on multiple theoretical perspectives to understand the dynamics and complexities of supply chain management. These include theories of enabling and coercive bureaucracies and control system and multiple cultural perspectives - *integration, differentiation and fragmentation* - to supply chain identities. The thesis sheds light on this area of study by providing three main findings. First, in contrast to the notion of dichotomous enabling/coercive supply chain accounting, it has been found that an enabling and coercive framework is useful in understanding the co-existence of uses of supply chain accounting and controls; in addition, the study demonstrates the implication of simultaneous presence of enabling and coercive elements, where enabling supply chain accounting and controls can become exploitative. Second, the intertwining of open book accounting practice with the role of liaison in managing customers is explained. In particular, the enabling features embedded in open book accounting allow the manufacturer to strengthen its commitment to the inter-firm relationship. Finally, the study also illustrates the manner in which accounting and control systems are implicated in supply chain identity phenomena. The uses of supply chain accounting and controls symbolize multiple identities. In contrast to previous studies of identity in inter-firm accounting, where accounting has been shown as incidental, my study demonstrates that accounting has assisted in articulating how identity phenomena are central to the theoretical point; they have been used far more centrally to the explication of the key supply chain process in the field.

Keywords: supply chains, accounting and controls, KPIs, open book accounting, PMS

## CHAPTER 1

### Exploring New Forms of Accounting and Controls in the Context of Supply Chains

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Accounting is neither a static nor homogenous phenomenon. Over time, all forms of accounting have changed, repeatedly becoming what they were not. Accounting, moreover, is not a homogenous craft.

(Hopwood, 1983, p.289)

#### 1.1. Introduction

In response to the research call for studying “accounting in action” (Hopwood, 1983), consideration has been given to explore accounting as part of complex organizational processes in everyday life (Hopwood, 1994). Attention has been given to a constitutive role of accounting: it exerts “an influence on, and in turn influenced by, a multiplicity of agents, agencies, institutions and processes” (Miller, 1994, p. 1). Accounting is no longer viewed as having only or even primarily a technical function that merely documents and reports economic activities (ibid); instead it is understood as an “active” craft that can be mobilised to serve different roles in a variety of context (Ahrens and Chapman, 2007). The quest for studying accounting in action therefore has revealed new forms of accounting, providing wider significance to organizational members (Hopwood, 1987).

Research into new forms of accounting continues. As organizations increasingly attempt to achieve competitive advantage through inter-firm collaboration

(Christopher, 2000), their activities transcend legal boundaries. However, the inter-firm setting establishes a space without a clear authority over the various forms that collaboration might take (Seal, Cullen, Dunlop, Berry and Ahmed, 1999), thus raising the question of how control and coordination mechanisms in such settings might work.

An inter-firm network consists of multiple firms whose relationship is neither purely market based nor purely hierarchical (Miller, Kurunmaki and O’Leary, 2008). Therefore, the application of traditional accounting and control measures with inward-looking perspectives or top-down approaches is potentially counterproductive. Research calls for understanding new forms of accounting have been extended to lateral relations, “looking across rather than up and down” (Hopwood, 1996). Since then, a number of accounting studies on inter-firm relationships have been published.

While there have been numerous theoretical and empirical accounts of the role of accounting and control in inter-firm settings, the primary focus has been on understanding some of the economic considerations that support inter-firm design choices (see review of literature by Hakansson and Lind, 2007). Of these, the transaction cost economics (TCE) perspective has predominantly been used as a theoretical foundation (Van Der Meer-Kooistra and Vosselman, 2006). These studies have focused on control design development and have suggested theoretical models

that aim to minimize transaction costs. However, they have been criticised for a limited emphasis on dyadic relationship (e.g. buyer and supplier) thus ignoring the influence of others (e.g. shareholders, service providers etc.) in the functioning of accounting within this context (Chua and Mahama, 2007). Moreover, while the focus on describing the theoretical models that “will work” (Mouritsen and Thrane, 2006, p. 242) has helped to stimulate researchers and practitioners alike to consider all relevant factors in designing inter-firm relationships, the studies offer limited understanding of “the complex reality of practice” (Chua and Mahama, 2007, p. 51).

If within an organisation, accounting and controls within its local contexts have been associated with the various mobilisations of accounting depending on the activities of skilful actors in pursuing diverse objectives (Ahrens and Chapman, 2007; Jorgensen and Messner, 2010; Roberts, 1990), likewise, accounting and controls in the context of the supply chain has also been practised in a diversity of ways within different relationship (Free, 2007). Accounting in the context of supply chains has been found to play enabling roles in the management of cost reduction activities (Mouritsen, Hansen and Hansen, 2001) and in the establishment of trusting relationship (Seal et al., 1999). On the other hand, accounting has also become a source of conflict and ambiguity that influenced the stability of supply chain relationship (Chua and Mahama, 2007). There have been mixed findings. Much remains to be known about the ways in which accounting and controls in the context of supply chains function in practice (Free, 2007).



Although there are emerging studies that attempt to examine the practice of supply chain accounting and controls, there is still a need for further in depth field research to examine the ways in which the various accounting and controls are used in the everyday organizational context. A particular attention should be given to networks of relationships rather than to dyadic relationship, as suggested by Hakansson and Lind (2004):

There is a need for more intensive case studies of business relationships where the role of different organisational units and the relationships between them are investigated in detail. The interaction between companies seems to have a substance and a variety that need to be conceptualised and modelled in much more elaborate ways than has been done to date. (p. 68)

It is also important for the researcher to focus on specific accounting and controls such as open book accounting (OBA) and how it helps to address local concerns and priorities of inter-firm relationships (Free, 2007). These in turn require the understanding of the nature of inter-firm relationships itself, its identity and meanings.

This thesis therefore attempts to contribute to the small but growing body of research in the area of the operation of accounting and controls in inter-firm settings. It critically examines the role of accounting and controls in the process of managing supply chains, taking a closer look at three aspects: performance measurement in supply chain, transparency of supply chains, and supply chain identity. In doing so, supply chain accounting and controls such as KPIs and OBA are highlighted. A field study of a network of supply chains involving one manufacturer and its relationship

with two major groups of customers is conducted, with particular interest in how accounting and controls influence the management of the customer relationship.

## **1.2. Research questions and research objectives**

The present research investigates how the accounting and controls are used within supply chain relationships. The main research question is: how are accounting and controls implicated in the process of managing the supply chain? This gives rise to three specific objectives and their respective research questions, which are discussed next.

### **1.2.1. The role of performance measures in supply chains**

The first specific research objective is to explore the ways in which performance measures are used within supply chain management. While most studies focus on a dyadic relationship, few studies analyse network forms of inter-firm relationships (e.g. Chua and Mahama, 2007; Mouritsen and Thrane, 2006). In addition, while several studies offer a single perspective of controls (for instance, patterns that are trust-based, market-based or hierarchical-based), a combination of several control patterns may also exist. For example, it has been suggested that hierarchical and market control patterns co-exist and they can enhance the development of the inter-firm relationship (Hakansson and Lind, 2004).

The notion of mixed uses of controls has also been sought within an organization's top-to-down relations in order to achieve efficiency and flexibility simultaneously (Ahrens and Chapman, 2004). Drawing on coercive and enabling theory, they demonstrate how overlapping coercive and enabling controls exist in managing the day-to-day operation of restaurant chains. They assert that:

[the] analysis of the various enabling and coercive aspects of management control in restaurant division highlights the limitation of the stereotypical views of management control systems as divorced from operations without ignoring that, in most organizations they are bureaucratic and highly formalized and not, at some would have it, a source of operational creativity and innovation. In particular, the concept of enabling is useful for elaborating the way in which management controls might shape, not spark, innovation, balancing objectives of efficiency and flexibility. (p. 297)

The concept of enabling and coercive in Ahrens and Chapman (2004) was originally developed by Adler and Borys (1996) for understanding the ways in which bureaucracies may have an impact on employees' behaviours. They contrast enabling and coercive formalization along three dimensions: characteristics of the system, the process of designing the system and the implementation of the system. These concepts have been applied by several accounting researchers in understanding the role of accounting and controls, focusing on various dimensions. Wouters and Wilderom (2008) for example studied the process of designing and implementing performance measurement system and showed how enabling PMS can be developed. Free (2007) on the other hand focused mainly on the implementation process (i.e. the ways in which accounting and controls were used) and showed how they can be either enabling or coercive at a time within the same context.

Like Free (2007), this study attempts to address the uses of supply chain accounting and controls. Building on Free's work, this study seeks to examine further the concept of "simultaneous" approaches to controls rather than the dichotomous nature of enabling and coercive formalization. The study therefore applies Ahrens and Chapman's (2004) notion of simultaneous uses of coercive and enabling controls in understanding supply chain network. In addition, like Wouters and Wilderom (2007), this study attempts to explore PMS within operational process but extending the scope of operational processes beyond the legal boundaries. Therefore, the research attempts to answer the following research question:

How do coercive and enabling performance measures co-exist in supply chains?

While the question addresses the ways in which performance measures, in particular, are used within supply chain operation in pursuing diverse objectives, their uses depend partly on the transparency within this context. Information sharing is indeed one of the features of many supply chain relationship (Free 2007). The present research thus further investigates this issue by exploring the practice of open book accounting, i.e. one of the information sharing mechanism addressed in recent inter-firm accounting literature.

### **1.2.2. The role of open book accounting in supply chains**

So far, studies of OBA have focused on sharing of information with the aim of achieving cost reduction objectives (Carr and Ng, 1995; Dekker, 2003; Kajuter and Kulmala, 2005; Mouritsen, Hansen and Hansen, 2001). As a result, OBA has been associated with the provision of cost information to supply chain partners. However, Vaivio (1999b) raises a concern about traditional measurements such as those that are based on cost, which provide information that is considered historical and thus limited in its “capability to penetrate into the underlying processes where local knowledge is being stored.” (p. 45). While the notion of OBA has been limited to the cost or financial information, non-financial management accounting could also be potentially considered part of information-sharing. Vaivio (1999a, p. 710) writes:

Management accounting now moves beyond the constraints of financial analysis and the passive monitoring of economics aggregates. It becomes a more active management craft, addressing directly what it deems urgent. Instead of controlling the major courses of events at a distance, the new management accounting is implicated with the day-to-day issues, decisions and actions of a business.

Alternative investigation which re-focuses the aims of OBA in order to include other initiatives, such as achieving flexibility or competitive analysis, could then reveal other functions of OBA that might be specific to these relationships.

Besides, most studies of OBA have so far been examined from contingency perspective and conducted using survey approach. For example, drawing on a contingency based case study, Kajuter and Kulmala (2005) explore the reasons for the successes and failures of OBA practices. The authors show among the reasons why a

buyer failed to secure a supplier's willingness to venture into OBA was due to a lack of mutual benefit and trust and also a lack of a proper costing system. While the study provides some insights into what are the conditions for success or failure, it fails to consider "why" and "how" OBA takes a particular form. The contingency based studies are not well equipped to explain the details of the dynamics of OBA implementation. A field research provides a host of examples of these implementation processes. OBA has been found to allow improvement initiatives when the information provided through OBA are used for joint exploration and gain sharing (Free, 2007). Moreover, studying accounting and controls in general or OBA in particular through field research may allow an understanding of the ways in which accounting intermingles with other bodies of organizational knowledge (e.g. Ahrens, 1997).

While Free (2007) illustrated how the provision of accounting information within an enabling governance structure between buyer-manufacturer relationship enhanced transparency, he suggested for further research to be conducted with specific "aim at identifying the factors that militate towards enabling systems" (p. 929). Ahrens and Chapman (2004) noted that:

The enabling approach for formal control is potentially valuable for future management control system research because the processual nature of management control has so far proved difficult to grasp in contingency studies. The contingency approach has lacked a typology of different uses of management control systems that could be related to clear and comprehensive research instruments with which to classify organizations. (p. 297)

This study aims to answer the following research question:

How does OBA influence an enabling orientation of supply chain management?

The thesis has so far addressed two specific research questions aiming at understanding the constitution of accounting and controls in supply chain relationships. In studying an alliance network, it is imperative for researchers to explore the role of accounting by explicating “the actions nets” (Czarniawska, 1997) as argued by Chua and Mahama (2007, p. 52):

The concept of agency (be it associated with individual actors or the systems in which they work) is theorized not as a characteristic of the actor per se but as an effect of the dispersed network of co-actors, connections, and interdependencies. The actors cannot then be studied without at the same time paying attention to the network through which their identities are defined.

Accounting information such as accounting reports, they argued, may generate subjective meanings and perceptions. However, “not enough is presently known of the actors’ interpretation/definitions or use of accounting and other managerial control systems (Scapens and Macintosh, 1996) within specific normative contexts” (Chua and Mahama, 2007, p. 52).

While Chua and Mahama (2007) have shown the implication of accounting to the issue of identity in supply chain, the understanding about the nature of supply chain identity, through which accounting and accounting may influence, however remain of interest for further research.

### **1.2.3. The role of accounting and controls in supply chain identity**

While many firms agree and share common goals at the start of a collaboration, such a process is complex and dynamic, and could result in conflict and opportunism. So what makes these collaborations “coherent” or “stable”? What makes them “dynamic” or encourage “flux”? These features may be related to the structure of the network of collaboration, such as the identity of actors, what they do, and how they do it (Czarniawska, 1997), thereby indicating the relevance of identity issues.

According to Hopwood (1987):

Accounting systems and the means by which they, in turn, shifted the perceptions of organizational functioning, mediated the recognition of problems and the options available for their resolution, and infused the patterns of language, meaning and significance within organization (p. 228).

In the accounting literature, accounting has been shown to influence supply chain identity (Caglio and Ditillo, 2008). Chua and Mahama (2007) suggest how the performance measures in an outsourcing relationship help to influence the perception of the supply chain members towards the relationship. Indeed, accounting is argued to be both an outcome of identity construction and a way of mediating this process (Free, 2007; Chua and Mahama, 2007). While accounting has been shown to influence identity formation, it may be useful to understand the nature of supply chain identity as characterized by supply chain accounting and controls. This leads to the third research question:

How do supply chain accounting and controls influence supply chain identity?



### **1.3. The background of the case company**

In addressing these research objectives, an ethnographic study of a multinational food manufacturer in Malaysia, known as ABC (a pseudonym), was conducted. The company was established in the early 1920s and currently sells many products with a strong brand reputation, particularly in the local market. Being one of the leading multinational companies in Malaysia, ABC therefore provides a useful research site for this investigation. Two major groups of customers were identified. The first group of customers consists of several legal distributors appointed by ABC. They have been ABC's distributors as early as the establishment of ABC in Malaysia. They are now known as ABC's long term partners. At the time of the study, LTPs mainly supplied ABC's products to local retailers. The second group of customers consist of four major multinational retailers.

This study focuses on the context of supply chain operations both within ABC as well as between the company and its two major networks of customer, by tracing the details of supply chain practices and their significance for the practice of accounting and controls. The data collected was analysed within themes in order to answer the research questions. The findings are presented in Chapters 4, 5 and 6 of this thesis.

#### **1.4. Structure of the Thesis**

The thesis is organized in seven chapters. Chapter 1 has given a general overview and has introduced the research questions and organizational background that guide the thesis. It provides the research objectives and the scope of research in attempting to understand the role of accounting in the process of managing the supply chain.

Chapter 2 presents a critical review of the major theoretical background, which informs the research objectives. It discusses the emergence of diverse forms of supply chain accounting and controls and their development and uses. Emphasis is given to the ways in which the various accounting and controls are used in supply chain management.

Chapter 3 discusses the philosophical position and methodological approach adopted in this research. An ethnographic field study is chosen as a potentially useful method to explore in depth the role of accounting and controls. The relationship between manufacturer and customers provides the focus of this study. The research methods and data analysis are described, and an account is given of relevant issues such as gaining access and evaluating credible research.

Chapters 4, 5 and 6 present the empirical findings of this thesis, organized around three interrelated themes emerging from the research.

Chapter 4 explains the co-existence of coercive and enabling uses of performance measurement system (PMS) in the supply chain. It describes the ways in which coercive and enabling accounting and controls may co-exist and the ways in which such co-existence may pave a way for exploitation of the enabling system.

Chapter 5 more closely examines one of the supply chain accounting and controls, it is OBA. It demonstrates the characteristics of enabling uses of OBA and how the role of liaison reinforces its practice, thereby sustaining the enabling orientation of the supply chain.

Chapter 6 explains how supply chain relationships can be viewed as complex and dynamic by studying supply chain identities through multiple perspectives. It also explores the attributes of uses of supply chain accounting and controls, on which identities depend.

Chapter 7 provides a summary of the thesis and its key contributions. Some limitations of the study are also discussed and suggestions for future research are offered.

## CHAPTER 2

### **Relating Accounting and Controls to the Management of Supply Chains**

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More explicit consideration is [now] given to the integration of actions within networks of organizations. Concerns with quality, cost and delivery are acted upon across supplier chains. Planning, budgeting and control processes flow from one organization into others, creating, as they do, a more explicit awareness of the interdependency of action and the role which joint action can play in organizational success[...]To date accounting researcher has largely ignored such changes and their implications for financial decision making and control.

(Hopwood, 1996, p. 589)

#### **2.1. Introduction**

The previous chapter discussed an overview of the present research. This chapter discusses the relevant literature in this area that informs the research questions and research objectives post in the preceding chapter. It provides a review of the literature which seeks to understand the key roles of accounting and controls in managing supply chains. Management accounting in particular has been shown to play a key role in managing this kind of collaboration.

This chapter is organised into four sections. Section 2.2 introduces supply chain management, its functions and emerging issues. Section 2.3 explores the roles of accounting and controls in supply chain emphasizing three main roles in this context. Section 2.4 concludes the chapter by relating the emerging themes in the relevant literature to the present study.

## **2.2. Supply chain management: Emerging issues**

Many firms are now increasingly adopting inter-firm collaboration in order to achieve competitive advantage (Ireland, Hitt and Vaidyanath, 2002). Various forms of inter-firm collaboration have been the subject of research interest such as outsourcing, supply chains, joint venture and network (Meira, Kartalis, Tsamenyi and Cullen, 2009). Firms gain many benefits from such relationship, ranging from tangible to intangible resources, such as skills, knowledge and contact (Dacin, Oliver and Roy, 2007). Within supply chains in particular, increased market share, cost reduction and customer orientation are regularly cited as catalysing the increased interest. The changing nature of relationships from short-term to long-term has given rise to the frequency of transactions among supply chain members.

While research in this area is proliferating, scholars in various disciplines have come up with different conceptions of supply chain (see review of Croom, Romano and Giannakis, 2000). Ellram (1991, p. 13) denotes supply chain as “a network of firms interacting to deliver products or services to the end customers, linking flows from raw material supply to ultimate end customers”. These include both the management of upstream supply chain – such as raw materials suppliers, packaging suppliers, and logistic service providers – and the management of downstream supply chain such as customers.

Many studies thus far have given more concern to the upstream supply chain relationship, leaving the management of the downstream relationship for further research (Caglio and Ditillo, 2008). This thesis attempts to contribute to the understanding on supply chain management within the downstream relationship – the relationship between a manufacturer and its network of customers. Seal et al. (1999) argue that “although paying lip service to the interests of the supplier, much of the literature looks at cost management through the eyes of the purchaser” (p. 310). Since the supplying organizations in general have often been neglected in the studies of inter-organizational relationships, further understanding from the supplier perspectives by focusing on the enabling uses accounting and control system might help management to design accounting and control system that expand beyond their traditional boundaries and thus achieve the desired outcomes.

Besides the downstream and upstream level of supply chain, firms are also concerned about managing various supply chain functions such as logistics, distribution, planning, and customer service, marketing, sales and manufacturing. Recent trends in the supply chain have been aiming for supply chain flexibility and efficiency, involving many of these areas. By creating close collaboration with its suppliers, Toyota, for example, achieved efficiency and flexibility (Dyer and Nobeoka, 2000). The challenges to seek improvement in management of supply chain remain for further research.

Given the complexity of supply chains, many firms are devoting their efforts to devise ways of managing them. One increasingly important aspect of managing supply chain efficiency is the management of supply chain inventory issues relying to a greater extent on information sharing between supplier and buyers (Kulp, Lee and Ofek, 2004). Lee and Billington (1992) highlight the weaknesses of inventory management in the supply chain network, among other things the lack of understanding of customers' inventory systems which affects the service level.

Supply chain management literature has offered useful theoretical frameworks for designing KPIs metric but has rarely provided empirical evidence particularly of its implementation process. In general, one notable weakness of performance measurement in supply chain is that KPIs have been designed with an intra-organizational focus rather than supply chain wide (Shepherd and Gunter, 2005). In addition, there has been a lack of connection between KPIs and strategy (Gunasekaran, Patel and McGaughey, 2004).

### **2.3. The emergence of supply chain accounting and controls: Their technical and symbolic role**

As the importance of supply chain is acknowledged, many firms attempt to achieve its benefits to the fullest. Linking supply chain strategy to other disciplines, like management accounting, might help improve efficiency and effectiveness across firm boundaries through strategic cost management (Anderson and Dekker, 2009). One

way to achieve this is through developing governance mechanisms such as control systems to manage the inter-firm relationship (Gietzmann, 1996).

Following the growing concern to study accounting in the context of inter-organizational relations – as the quote in chapter 1 indicates – accounting literature has shown many inter-firm accounting tools and applications. Management accounting scholars in particular have shown increasing interest in supply chain management. The vast research on accounting has drawn on various theoretical frameworks and has given rise to various designs of inter-firm accounting (see Spekle, 2001; Van Der Meer-Kooistra & Vosselman, 2000; Chua and Mahama, 2007).

The most prominent studies of inter-firm accounting and controls have been drawn from an economic perspective, proposing control model for designing the inter-firm relationship (Spekle, 2001; Van Meer-Kooistra and Vosselman, 2000; Langfield-Smith and Smith, 2003). Van De Meer-Kooistra and Vosselman (2000), for example, suggest three types of inter-firm control structure: market based, bureaucracy based and trust based where factors like transactions characteristics, their environmental characteristics and the partners' characteristics should be considered when developing control systems for inter-firm relations. In a similar vein, Langfield-Smith and Smith (2003) found that control in outsourcing was developed through outcome control and social control, particularly trust.



An alternative perspective on studying inter-firm accounting and controls has been developed by Chua and Mahama (2007) where the operation of accounting control systems in an alliance network are said to be fragile and subjected to continuous change. While similar findings to the economic perspective have been addressed where the characteristics of buyer and suppliers are important factors that influence the operation of inter-firm accounting, the notion of ‘action nets’, they argue, helps to explain its operation beyond the dyadic relationship; the operation of accounting and controls in supply chain is due to network effects as a result of the interactions, connection and inter-dependencies among human actors, artefacts, and technological systems.

The use of various types of accounting in the inter-firm setting, such as (OBA), joint business planning, joint performance measurement (PMS) and so on, were a result of the various perceived needs in this context (Free, 2007). Chua and Mahama (2007), for example, found that several control measures were developed during the course of the outsourcing relationship in order to monitor performance, but its uses also gave rise to a different interpretation of supply chain members towards the supply chain relationship. In view of these findings, it has been argued that accounting may play wide ranging roles in the inter-firm relationship from specific functions to more symbolic purposes (Caglio and Ditillo, 2008). These are further discussed below.

### **2.3.1. Accounting and controls for measuring the performance in supply chain network**

Interest in supply chain management (SCM) has increased as organisations seek opportunities to improve performance. Monitoring plays a key role in enhancing supply chain performance by highlighting opportunities for improvements. However, evidence on the use of performance measures in SCM is scant.

(Langfield-Smith and Smith, 2005, p. 39)

Accounting has long been argued to play a role in measuring and monitoring performance. Likewise, several studies have shown the role of accounting and controls in performance monitoring and rewarding of the inter-firm relationship (Dekker, 2004). However, “designing a perfectly complete PMS remains challenging, if not impossible” (Wouters and Wilderom, 2008, p. 491). One way in which firms could manage such “incompleteness of PMS” is through the use of integrated PMS; by combining various aspect of management systems it might help to improve the performance monitoring process (Lillis, 2002). A similar approach has been proposed by Langfield-Smith and Smith (2003) where they contend that it might be possible to combine a formal performance measurement mechanism and a social or informal mechanism in monitoring performance within supply chain relationships. According to Christopher and Juttner (2000, p. 126):

Formal and informal monitoring processes should both integrate business targets, for example in the form of key performance indicators, as well as process-related targets. Thereby, feedback is not only obtained on “what has been achieved” but also on “how it was accomplished.

Hakansson and Lind (2004) explore, through a case study, the integrated PMS, among others, the mix of hierarchical and market based coordination mechanisms

where overlapping accountability support the development of inter-firm relationships. While they clearly describe the inter-relationship between control mechanisms for achieving cooperative coordination, accounting and controls remain as contextual variables. Mouritsen and Thrane (2006) extend this area of research by explicating the ‘network approach’ and show accounting and controls constitute a network; the network itself is to a large extent part of the accounting and controls. They state that:

There are plenty of market transactions in the networks because all those transactions where partners simply engage directly with each other – and this is the vast majority of instances – are direct and market based. They attempt to ensure resources and use the network to accomplish this, but to do this, a complex array of market and bureaucratic relations are developed.

(Mouritsen and Thrane, 2006, p. 272)

Powerful lead firms may set governing mechanisms within their network (Huemer, Becerra, Lunnan, 2004) while weaker firms may accept such mechanisms developed for the relationship even though they were aware that it might lead to inefficiencies (Caker, 2008).

The present study attempts to address the issue of simultaneous uses of accounting and controls in supply chain through a different perspective. In so doing, the study follows Ahrens and Chapman’s (2004) notion of simultaneous uses of coercive and enabling controls – two types of control formalization adapted from Adler and Borys (1996). Their study addresses:

[...] the potential of management control systems as a tool for reinforcing hierarchically established relationship and priorities, directed towards efficiency, while flexibly reconciling these efficiency concerns with the specific circumstances faced by junior managers

(Ahrens and Chapman, 2004, p. 277)

Adler and Borys (1996), while emphasizing the possibility of the dichotomous nature of coercive and enabling, also speculate that there might be a coexistence of both types of formalization due to overlapping forces between the systems that may shape enabling and those of a coercive type.

### **2.3.2. Accounting and controls for increasing the transparency in supply chains**

The concept of transparency in supply chains has received increasing interest (Lamming, Caldwell, Philips and Harrison, 2005; Frances and Garnsey, 1996). Transparency of cost information in particular, commonly known as OBA, has been viewed as the practice of cost information sharing between partnering firms and has been central to inter-firm cost management (Coad and Cullen, 2006). While many studies ascribe OBA in relation to cost transparency, Hoffjan and Kruse (2006) offer broad conception of OBA where it refers to:

[the] information that can be acquired in one's own enterprise and will, therefore, not usually be available. In this connection, information used that is located in the sphere of influence of another company within the value chain and is normally classified as confidential. (p. 41)

To date, the studies of OBA have shown mixed findings regarding the success and failure of OBA implementation (Caglio and Ditillo, 2008). OBA is also viewed to engender competition and a culture of cynicism when the information was used by buyers to pressure suppliers for greater price reductions (Munday, 1992; Free, 2007). The establishment of OBA is also associated with the role played by the dominant partner where they may restrict or expand the practice of OBA depending on its

interest (Seal, Berry, and Cullen, 2004). Free (2007) shows how a dominant buyer coerced its supplier in sharing sales related information and this later resulted in an unfair and untrustworthy supplier and buyer relationship. Such forced openness “does not guarantee the successfulness of OBA” (Kajuter and Kulmala, 2005, p. 200).

On the other hand, the use of OBA has also been shown to give several advantages to an inter-firm relationship. OBA has been viewed to play a constitutional role in the establishment of trusting relationship (Seal, et al., 1999). The accounting information – gained through OBA – allows joint exploration and improvement activities, thus increasing commitment and trust in the supply chain relationship (Free, 2007). It supports joint exploration of possibilities by providing an information-based infrastructure (ibid). OBA enables a cost benchmarking process across different suppliers in achieving cost reduction targets (Mouritsen et al., 2001). In addition, while trust has been regarded as a pre-requisite to the existence and successful implementation of open book accounting in their study (see also Seal et. al., 1999); the use of OBA itself does influence the trust element in inter-firm relationship (Free, 2008). Moreover, the practice of open books accounting may foster “self-enforcing agreements” among supply chain partners (Seal et. al., 1999). This is because accounting that works as self-regulation mechanism calls for interactions and discussions between partners (Mouritsen and Thrane, 2006, p. 273).

OBA thus far has been conceived as enabling of supply chain management, but it has also been used to coerce other supply chain partners. Free (2007) in particular has drawn the framework of enabling and coercive formalization to control (Ahrens and Chapman, 2004) and suggested that managers might use open book accounting in enabling and coercive way. While Free (2007) shows how enabling approach to open book accounting enhanced relationship commitment, the details on the nature of open book accounting was not discussed in great length. Notwithstanding open book accounting was mentioned less frequently, the study lends a useful framework on framing supply chain accounting in general or open book accounting in particular. Moreover, Free warns that “enabling use of accounting information within supply chain relationships should not simply be equated with a form of joint participation in decision making and some form of sharing of accounting information (p. 928). It is therefore relevant to further explore what constitutes an enabling form of OBA.

While the types of information shared might be those of sensitive information which suppliers might be reluctant to share (Free, 2007), some firm extensively shared such information when there is high level of trust (Seal et. al 1999). Previous studies have shown how trust has been a pre-requisite to open book accounting to exist (Seal et al. 1999). Trust is influenced by relationship history as well as interactions patterns and hence the link between trust and open book accounting is mutually reinforced (Free, 2008). Meaning, trust is strengthened when partners repeatedly deal with each other and successfully accomplish each other’s requirement and thus the partner is more

willing to exchange information. In contrast, even expansive open book accounting might engender distrust if the form and nature of interaction are forceful (Free, 2008). Indeed, Tomkins (2001) suggested that different stages of inter-organisational relationship demands different level of information exchange depending on the level of interdependency. Cooper and Slagmulder (2004) identified the different nature of inter-firm relationship and thus require different type of cost management information.

While the importance of OBA is acknowledged, it has received less attention to date. Field studies in particular have been viewed as useful to provide understanding of the complex and dynamic functioning of accounting (Free, 2007). Adler and Borys (1996) mention in their suggestion for future research to explore “whether and how organizations can shift from coercive to enabling types of bureaucracy” (p. 84). The present study adopted this approach in examining in depth the practice of OBA.

### **2.3.3. Accounting and controls for constituting supply chains**

Within an organizational context, accounting plays a constitutive role and helps to shape identity of an organisation (Ahrens and Mollona, 2007). The use of standard costing and budgeting, for example, came to be linked to the emergence of a ‘governable person’ (Miller and O’Leary, 1987). The interplay between ‘paper’ (as proposed by CEO) and ‘hands on’ (as proposed by production managers) versions of

management control defines what constitutes a “flexible firm” (Mouritsen, 1999). Non-financial management accounting emphasis is viewed to influence the notion of “quantified customers” (Vaivio, 1999a).

Indeed, the debates around the proactive role of accounting in shaping organization processes and priorities have often given rise to the notion of identity (Dent, 1991; Ahrens and Mollona, 2007). Accounting in this process has been claimed to symbolize meaning; accounting symbolizes legitimacy in organizational activities that contributes to shared values and practices (Dent, 1991) as well as conflicts and resistance (Ahrens, 1997). A myriad of shared practices and disagreement, on the other hand, reflects the aspect of ambiguity, thus fragmentation (Ahrens and Mollona, 2007). Ahrens and Mollona (2007) states that:

The different cultural practices, and the complex social relations in which they were implicated, contributed to the uneven impact of the company strategy on the company's subcultures and gave rise to distinctive control practices on the different shop floors. The social relations also emphasised the political nature of cultural practices. (p. 325)

The role of accounting in identity formation has also been discussed in recent inter-firm accounting literature (Chua and Mahama, 2007; Thrane and Hald, 2006; Free, 2007; Mouritsen et al., 2001). Seal et al. (2004) conceived inter-firm accounting as an “expert system that is produced and re-produced through interactions between supply chain actors and wider institutional influences” (p. 74). Concerns about “the information contained in accounting reports as well as the subjective meanings and perceptions that are generated by those reports” (Chua and Mahama, 2007, p. 53)



help to understand this role. The process of developing PMS was associated with 'incomplete' PMS that resulted in a change of identity from trust to distrust of the supply chain relationship (Chua and Mahama, 2007). They show how performance measures in the supply chain relationship help to manage performance of suppliers but also emphasize how accounting and controls mediate the perception of 'fair' exchange where previously trusted suppliers were later seen as unfair due to a lack of pricing transparency. Accounting thus, they conclude, forms both technical and social control.

Studying accounting practices within their specific context is important due to the unique nature of each relationship, as noted by Lamming et al. (2004, p. 295) where they contend that "relationships are not generic; they need to be examined on a product-by-product, service by service basis". As Caker (2008) suggests:

There seems to be a lack of studies on the inter-organizational relationships that acknowledge the situation of the dominated partner in a relationship. A dominant customer who intends to manage their suppliers could regard the situation as similar to the managing of an internal unit, especially if dominated suppliers accept and act accordingly. However, to a dominated supplier, with objectives of their own, the control initiatives are seen within a different context, i.e. complexity in balancing demands from different customers and from owners. (p. 232)

While many studies of inter-firm accounting explore the functioning of accounting from the perspective of a dominating partner, such as a buyer, this study seeks to understand the supply chain network comprised of both dominating and dominated partners. As will be shown later when reporting the findings of this study, two relationships of the same supply chain network are offered: between a manufacturer

(dominating partner) and dealers (dominated partners); also the relationship between the manufacturer (dominated partner) and retailers (dominating partners). Indeed, most studies of inter-firm accounting and controls have been said to only examine the dyadic perspective rather than multiple relationship in a network:

In practice companies have a variety of relationships and each relationship has impacts on the other ones and vice versa. Therefore, [...] the complex network of relationships has to be taken into account; although some relationships are more of the arm's length type, while others are more close-knit. Such an approach also implies that the perspective of all related parties are scrutinised, whereas in the existing management accounting literature the studies mostly focus on the perspective of one of the parties.

(Van Der Meer-Kooistra and Vosselman, 2006, p. 228)

## **2.4. Conclusion**

This chapter has critically reviewed literature on supply chain issues and the roles of accounting and controls in the context of supply chain relevant to the current study. It has also discussed the development and implementation of inter-firm accounting, both from a technical and symbolic role. Technically, the functioning of accounting and controls within the supply chain relationship concerns increasing transparency and measuring performance within the supply chain relationship while the symbolic or social role of accounting concerns the influencing role of accounting and controls.

In trying to explore the ways in which accounting and controls are implicated in the process of managing supply chain, this thesis focuses on the roles of performance measures, OBA and supply chain identity and explains their functioning in the specific context of this study. In other words, this thesis seeks to explore the process of managing supply chains and the ways in which diverse accounting and controls –

performance measures and OBA – are implicated in this context. The study contributes to the increasing research reviewed in this chapter where it extends understanding of the ways in which firms manage supply chain through accounting and controls. The next chapter describes the matching research design.

## **CHAPTER 3**

### **METHODOLOGY**

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#### **3.1. Introduction**

The previous chapter describes the review of literature on supply chain accounting, which has shaped the objectives of this study. This chapter explains the research approach adopted in examining those objectives. It is organized in three main sections: section 3.2 discusses the philosophical assumptions which underpin the research questions; section 3.3 describes the research methodology, the method and the procedures of the fieldwork; section 3.4 explains the issues relating to the credibility of research undertaken.

#### **3.2. Philosophical assumptions underpinning my research**

A researcher's belief and values about what constitutes knowledge largely depend on both ontological concerns about the nature of reality and epistemological assumptions about the nature of knowledge. The ontological concerns underpin and govern the subsequent epistemological and methodological assumptions (Chua, 1986). In other words, what counts as knowledge depends on the researcher's assumptions of reality. These assumptions steer the researcher towards a particular way of knowing the reality by developing boundaries for the research undertaken, thus shaping the knowledge that the researcher wishes to construct.

While conducting this research, I followed the notion that “social reality is emergent, subjectively created, and objectified through human interaction” (Chua, 1986, p. 615). In the present study, knowledge of accounting uses can be conceptualized as an emergent phenomenon because its development and uses are subject to human action and interpretation. More specifically, accounting practices in the context of the supply chain has diverse meanings as a result of the interpretive schemes of supply chain actors, and these depend on the interaction of supply chain partners, their historical relationship and the context. The purpose of this research is therefore to understand both the meanings that each actor constructs when they use accounting in managing the supply chain relationship and also the reasons underlying such behaviour.

In consistent with the above ontological assumption, I believe that knowledge of the uses of supply chain accounting can be understood through “the close engagement of researcher with actors and that opens a window into the inner worlds and workings” (Parker, 2011, p. 6). Given that actors continuously interpret (and re-interpret) and construct (and re-construct) their world (Chua, 1986), the acquisition of knowledge through such an approach allows an understanding of the complex social life of the actors. Tomkins and Grove (1983) argue that:

[the] researcher forms a close contact with the field where one examines an analytical element of the study from different perspectives checking out, for example, how different people view events which occurred or are occurring and indeed gradually one’s understanding of what views each person’s hold.(p. 363)

The close engagement of the researcher with the actors in the field enables a collection of data that is “context specific” (Ahrens and Chapman, 2006, p. 824) and thus allows them to make sense about events with reference to their natural settings.

### **3.3. Interpretive Methodology**

The ontological and epistemological assumptions discussed above determine the subsequent methodological choice. The methodology reflects the researcher’s “set of spectacles” (Laughlin, 1995) which helps to answer the research questions as framed by the ontological and epistemological assumptions. It is also important to note the difference between “methodology” and “method” as both reflects a level of analysis. Methodology refers to “a general approach to studying the research topics” (Silverman, 2009, p. 121) while method refers to a “specific technique” for gathering the data (Silverman, 2009, p. 110). In addition, the former is more directly dependent on the epistemological stance underlying the research than the latter. The methodology connects the philosophical assumptions with the methods.

In order to understand closely “the subjective meanings of the actors and their intention” (Chua, 1986, p. 613), I followed the strand of interpretive qualitative methodology. This methodology allows “a particular way of knowing the field” to explore “aspects of social order that are not objectively real but are instead subjectively created through interaction of actors” (Ahrens and Chapman, 2006, p. 823) in the context of their everyday life. The nature of interpretive analysis such as

the dialectic technique emphasizes resolution between the researcher's own frames of meanings and those found in data (Covaleski and Dirsmith, 1990). The researcher's reflexivity is thus seen as a more sophisticated tool for making inferences than the use of a statistical package (Ahrens and Dent, 1998). In order to understand actors' real life experience and the world they inhabit, i.e. to capture qualitative data, an ethnographical approach was adopted and multiple data collection techniques were used during the ethnographic fieldwork.

### **3.3.1. Ethnographic fieldwork**

To research the processes of supply chain accounting, it requires an exploration through ethnographic fieldwork, which allows “ethnographers to respond and adapt flexibly to social circumstances as these arise, to be open to a wide variety of different types of relationship and interaction” (Amit, 2000, p. 10). Ethnography was originally developed by anthropologists to study the culture in foreign communities. It is commonly associated with an extended period of time spent experiencing foreign culture or in a distant location, which enables the researcher to have “total immersion”, as achieved by those traditional anthropologists who spent twenty-four hours a day in the foreign community (Delamont, 2004, p. 218) in order to be able to grasp the language and culture so that they themselves could “walk their walk and talk their talk” (Jonsson and Macintosh, 1998, p. 370). Later, the approach was adopted by many other disciplines, such as sociology, management and organization with the aim of studying a familiar group and at a

close distance. As the ethnographers shared a similar background to that of their subject, they were involved in “partial immersion” in which they spent a certain period of time in the field but returned home on a daily basis (Delamont, 2004, p. 218).

My research followed the latter strand of ethnography where I carried out daily observation in the organization through “partial immersion”. The organization was located in my home country, so I shared a similar cultural milieu and language (although most interviews were conducted in English, informal conversations were normally in our native Malay language). I managed to immerse myself with the organization’s members both during and after working hours within three months of fieldwork, thus allowing closer engagement, and became part of their “group”. I attempted to spend most of the time at the head office (where most of the ABC’s functions take place), observing staff working both during and after office hours as well as attending a number of other workplaces, including its factories and distribution centres. I observed their ways of working; aiming at understanding how supply chain accounting and controls can become implicated in their work practices.

### **3.3.2. Gaining access**

A request to conduct the study was initially sent to four companies in Malaysia. Two companies responded that, as the time span of the study to be undertaken coincided



with their busy period, it was difficult to entertain outsiders, while one company did not reply at all. The fourth showed its willingness to allow research to be carried out within its organization; given its stature as a multinational company with a complex network of supply chains, it was felt that it would be worthwhile to conduct the study with this company. I gathered information relating to its history and structure, and to the nature of its operation (its products, divisions etc.) through internet resources such as the company's webpage, annual reports and newspapers.

Any access to a company requires a gatekeeper and in my case I was able to communicate with the secretary of the supply chain organization. Before confirming research access, she referred me to the company's legal department to complete a confidentiality agreement. A preliminary interview<sup>1</sup> with the director of the supply chain from ABC was conducted with the aim of gathering further information about important issues for the organization and thus becoming familiar with the terms and concepts of ABC's supply chains. In addition, the information from the interviews and the internet resources, as well as the review of literature previously completed, was used to prepare the interview guide. Close to the period of fieldwork, I received

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<sup>1</sup> In addition to this interview with ABC Malaysia, carried out through Telco about six months prior to the actual data collection period, an interview with the purchasing manager from ABC UK was conducted face to face at his office in order to gain an overview of the ABC networks and their general concerns about supply chain management. A third interview took place on the telephone.

the interview schedule from the secretary covering several interviews with functional managers within the supply chain organization. She also reminded me that I would be responsible for arranging subsequent interviews.

The first round of interviews with the supply chain managers identified the difficulty in “getting inside” the organization, as the only access was through appointment. I therefore investigated the possibility of visiting a factory or another function within the organization in order to carry out daily observation. Being previously unfamiliar with the concepts and practices of qualitative research, for which on-going negotiation is necessary (Ahrens, 2004), I then made efforts with the director of supply chain to re-negotiate access to the various levels of staff in areas such as the factory, finance, sales and human resources, as well as to spend more time in the organization. After explaining to him the nature of research (which contradicted their understanding of “common survey” and “one off” interview, as had been previously requested by many researchers), the director agreed to appoint me as “temporary staff”. I was given both a staff card, which allowed access to every functional department, and a work space. In addition, the director also suggested that I completed an overview program to become familiar with all their operations.

Once I had been given staff privilege, I spent time as much as possible in the head office (where most of the ABC’s functions were carried out) and distribution centre (the base for the logistic service providers and the warehouse). Due to the centrality

of the supply chain function between customers and the various organizations within the company, I had the opportunity to become part of almost all operations. More importantly, my daily presence in the organization gave rise to greater confidence and trust shown towards me by the staff and as a result I was able to gain increased access to potentially rich data.

I attempted to adopt an "opportunistic" approach, as suggested by Baxter and Chua (1998), taking several opportunities to be with potential informants and also to arrange permission to sit in meetings or accompany staff on their visits to customers or service providers. The familiarization program was one of the starting points in gaining more access, introducing a structured approach towards gaining an understanding of the field organization and the work practices of various functions and levels. Through this program, I had the opportunity to visit two factories and two sales branches which were mindful of my research needs. Whenever necessary, I personally requested further visits to sales branches in order to carry out closer observation on how the staff managed customer issues. Additionally, I sought access permission from the manager at sales branches to accompany him to customer review meetings to observe the direct interaction between the company and its customers. After each meeting, I was able to seek understanding from customers about their relationship with their supplier, i.e. the company under study. I also had the opportunity to talk to several customers, both retailers and dealers, when following staff to meetings, warehouse audits and store checks. Furthermore, when visiting a

distribution centre I expanded my contact to include service providers as well as customers, having sought permission from the warehouse manager and distribution manager.

The field study was completed within the three-month period, and followed up by four later interviews with the company's major customers. Emails with company staff and informal contacts, blogs and telephone conversations were consistently carried out on an on-going basis both during and after fieldwork.

### **3.3.3. Data collection methods during fieldwork**

As a result of the familiarization program, most staff treated me as a trainee as I had assumed the role of learner (Smircich, 1983). Spradley (1979) posits that an ethnographer assumes this role because he or she is indeed learning from the informants. Moreover, given the philosophical assumptions discussed earlier, the construction of knowledge in the present study is driven by the pursuit of meanings and interpretations which are socially constructed and thus require my close engagement with the data. As a learner, I equipped myself with a range of theoretical possibilities so as to enable a certain focus on what to observe in the field (Evans-Pritchard, 1976); this approach prevented me from getting lost in the rich and complex field site. However, this did not mean that I should impose a priori theorizing, but rather should remain flexible and open to alternative ways of navigating through the sites. As argued by Evans-Pritchard (1976):

“And of course the Anthropologist’s observations are biased by his theoretical dispositions which merely mean that he is aware of various hypotheses derived from existing knowledge and deductions from it and, if his field data permit, he tests these hypotheses. How could it be otherwise? One can’t study anything without a theory about its nature.” (pp. 241-242)

Many staff openly shared their knowledge and repeatedly reminded me to ask them questions. They also allowed recorded conversations throughout meetings with them and provided their internal documents on my request. I attempted to collect as much as information as possible through multiple sources of data, including interviews, observation and document analysis. These sources are discussed next.

### *Observer participant*

As privileged “temporary staff”, I was able to be present in the office on a daily basis, thus giving me the opportunity to “just hang around” during office hours and closely observe the staff at work. Throughout the fieldwork period I was given a desk where I could write my fieldwork notes. Because the desk was located close to two supply chain managers (separated by a glass wall) I could observe their activities as well as the staff meeting with them. Whenever possible, I would use the opportunity of informal contact to ask these staff members further about their meetings. There was also a meeting room located near my workspace which allowed me to overhear the staff talking to each other while walking into or out of the room.

I participated in social events such as the annual dinner and the grand sales convention, and also took part in the community service program which included visits to old people and to an orphanage. During these events, I took the opportunity to circulate with the staff to listen to their conversations. I also obtained additional information from participants through informal contacts when travelling by car together to meetings, during breaks, emails and telephone conversations.

Throughout the fieldwork, I observed five performance review meetings, attended five business presentations, shadowed two sales representatives and accompanied a warehouse development manager during his audit of dealers' warehouses. I took notes whenever possible during or immediately following observations.

Eisenhardt (1998, p. 539) suggests two important ways in which field notes can be used. First, they are valuable as a pro-active approach to data collection by recording whatever impressions occur, regardless of the relevance of information for later analysis. Second, field notes can be used to "push thinking", prompting preliminary analysis by asking such questions as, "What am I learning?" and "How does this case differ from the last?" I therefore adopted the habit of taking notes whenever possible in order to capture every moment within the organization. Appendix 1 provides the details of these observations.

## ***Interviews***

The field study was conducted over three months. A formal interview schedule was provided by the supply chain secretary about three months prior to the fieldwork. The first phase consisted of eight interviews mainly involving the senior managers from various supply chain functions, including human resources. Interview questions were both unstructured and semi-structured. A brief interview guide was prepared and emailed to each interviewee prior to the interview session. A more detailed interview guide was prepared but no longer shared with the interviewee (in fact, they did not request this), to allow the respondent to talk freely about their experiences, although still within my areas of interest. The interview guide served as a useful tool for probing their opinions. Further interviews with staff who were directly involved with either customers or service providers were conducted on at least two or more occasions.

While the unstructured interviews aimed to uncover a general overview about the issues at supply chain operations and the practice of accounting and controls, subsequent semi-structured interviews were conducted to gain a deeper understanding of the themes emerging from earlier interviews and observations. More specifically, the structured interviews were aimed at building a general picture of managers' thoughts about their roles and the extent to which they used accounting and controls in their daily work. The main focus of data collection activities at this stage was on understanding issues between the manufacturer and its customers as well as its

service providers. The structure of the interviews therefore sought to build on earlier findings in order to confirm, for instance, the most important categories, ideas, concepts, activities, tools and systems related to the uses of accounting and controls in supply chains.

I also attempted to negotiate arrangements for meetings and interviews both with lower-level staff and managers, as well as with members of staff from various disciplinary backgrounds, including finance and control, sales and marketing, production and supply chains. I also sought a meeting with a legal advisor. This approach to studying accounting in the supply chain context enables the researcher to examine not only the role of accounting per se, but also its relevance to supply chain operations (Free, 2008).

The probing technique was used in order to prompt respondents into providing a more detailed explanation on certain issues. For example, during the earlier stage of fieldwork, questions revolved around the issue of information-sharing within the supply chain network. When one respondent had previously talked about “information sharing” between customers and the company, I attempted in the later stage to prompt the issue of OBA since most staff were not aware of this term. I had to probe deeper into what they considered to be the nature of shared “information”, and how and why they engaged in such practice. More searching questions were asked based on the ideas that had emerged from the earlier interviews and



observations. For example, I learnt about the one way “open book” practice - specifically, a way of obtaining “on the ground” information via supplier’s representation with customers, namely, through implant. Thus, detailed questions about the role of implant were asked in subsequent interviews.

Although the study was initially designed to include the view of the manufacturer only (due to limited access), I succeeded in obtaining four formal interviews with customers: two major dealers and two major retailers, with the help from the case company staff. Formal interviews with them were conducted a year later with the purpose of confirming issues that had emerged from the data collected from the manufacturer with respect to the ways in which they managed their customers. I obtained permission to carry out formal interviews with four major customers with the help of the case company staff. In addition, informal conversations with the staff which took place, for instance, when travelling by car together to meetings, chatting during lunch breaks, and becoming involved with community projects, offered me the opportunity to listen to and follow up on several issues.

The interviews were digitally recorded, with the exception of occasions when permission was not granted. Altogether, I completed forty-six interviews, of which forty-two were recorded. In addition, notes were also taken during interviews and immediately following observations, in order to record in my research journal my

own interpretation and thoughts about the issues arising. The recorded interviews were later transcribed. Appendix 1 provides the details of the interviews conducted.

### ***Review of documents***

Secondary data sources such as contract documentation, minutes of meetings, company standing instructions, internal memos and email messages, supply chain performance reports, annual reports and other relevant documents, were also collected. A review of these documents not only allowed fact finding but also served as a corroboration of evidence found elsewhere (Yin, 2003, p. 87). This was completed throughout the fieldwork period.

A review of the minutes of meetings with customers, for example, revealed the important issues highlighted by both parties. Such issues were then noted and observations made on how one party responded to the other with regard to these issues. In particular, I was interested in the use of supply chain accounting and controls in dealing with customers; the review of minutes of meetings revealed KPIs as an agenda item. In one meeting attended, I observed the interaction around the KPIs performance between the supplier and its customers and how both parties responded to each other's request. Appendix 1 provides the list of documents reviewed.

### *Data analysis*

While a priori theorizing offered a basis for formulating research questions and a direction for entering “the sites”, this did not prevent me from being open to an alternative research framework. In a qualitative study, it is important that “an on-going reflection on data and its positioning against different theories such that the data can contribute to and develop further the chosen research questions” (Ahrens and Chapman, 2006, p.820). Throughout my data collection, I constantly reflected on notes made and listened to recordings of interviews in order to obtain preliminary ideas. I attempted to summarize the data according to several categories, such as department or function, and fed the emerging story back to various participants in the subsequent rounds of data collection (Jonsson and Macintosh, 1998). Czarniawska-Joerges (1992) argues that similarities and differences can be observed by drawing the attention of participants to the contrasts in the organization’s activities, work environments, strategies, questions and concerns.

The process of identifying key themes thus began during the course of the field study (Ahrens and Dent, 1998). Preliminary analysis allowed ideas to emerge from the interviews and observations and these were noted and followed up immediately. A continuous comparison was made between the empirical material and the key themes from literature. I avoided arriving at premature conclusions at this stage. For example, I tried not to ask leading questions relating to summarized themes or theoretical

concepts. As additional data was collected and analysed, emerging conceptual patterns were further modified and noted in my research diaries.

After the fieldwork, I did a thorough reading of fieldwork notes and interview transcripts, as well as listening again to the interviews, in order to achieve in-depth understanding of the data. I adopted the suggestion made by Baxter and Chua (1998) to “make sense of the observed behaviour”, both during and after fieldwork, by continuously asking such questions as: “What is going on here? What does this mean? What patterns are emerging? How is my pre-conception of a particular phenomenon being changed by the events in the field?” (p. 79). A further recommendation to researchers is offered by Kvale (1996) to look not only for what is “said”, but also for what is said “between the lines” (p. 32).

Data was first arranged according to functional departments (e.g. customer service, distribution, warehouse). The initial coding process involved categorization, derived from research questions, based on measures of intra-performance and inter-performance, OBA, supply chain identity and culture, and many others. The analysis process was conducted manually, with the aid of the insert comment function in Microsoft Word, Mind Manager and Nvivo. Initial coding was refined, discarded or added in order to reflect emerging themes and patterns in the subsequent analysis.

I adopted an iterative approach while establishing the themes and patterns emerging from the data, i.e. going from data to literature and back (Hammersley and Atkinson, 2007, p. 159). This process assisted a comparison between the data and the literature, searching for similarities or differences in the different ways in which accounting was implicated in supply chains “to generate a plausible fit between problem, theory and data” (Ahrens and Chapman, 2006, p. 836).

The procedure of recording the findings is itself considered to be an essential process of analysis (Ezzy, 2002). Through the writing-up, begun soon after the completion of fieldwork, theoretical implications of data collection and analysis could be enhanced (ibid, 2002, p. 138). It is also contended by Baxter and Chua (1998) that “the process of writing-up highlights gaps in researcher’s understanding of contemporary organization” (p. 81). The early start of writing may therefore help to prompt follow-up with the researched organization to fill the gaps identified. Ahrens and Dent (1998) describe the product of the theorizing process as a “creative text”, where the field researcher “search [es] for patterns to create stories, which requires imagination and creativity” (p. 9); this could be reflected, through the writing of the story, in the interest of its readers.

### **3.4. Credibility of research**

Assessment for the credibility of qualitative research differs from that of quantitative study. Indeed, since the former is very specific to an individual research project, what constitutes appealing qualitative research findings varies according to various phases of the research process. Numerous articles have discussed the criteria for evaluating qualitative research (Ahrens and Chapman, 2006; Mckinnon, 1988; Golden-Biddle and Locke, 1993; Ahrens and Dent, 1998; Baxter and Chua, 1998). In order to create a checklist for conducting my fieldwork, I referred to the study by Ahrens and Dent (1998), which addresses the guidelines on “realizing the richness of field research” to produce an appealing research study, and also consulted the discussion by Ahrens and Chapman (2006) on “positioning data to contribute theory” to develop plausible research. Considerable attention was given to ensure the criteria were met, especially during the process of data collection, analysis and report-writing, as further discussed below.

#### **3.4.1. Data collection: multiple methods and “audit trail”**

The use of interviews and observation as the main research methods allows the gathering of data that “consist[s] of subjects’ accounts and reflections, together with researcher’s observation of organizational practice” (Dent, 1987, p. 125). Having access as “temporary staff” at the field organization, I was able to observe more events and activities as well as to mingle with multiple key informants and

respondents on a daily basis, thus allowing greater insight into “the action and motivation of often very skilful people who routinely mobilize accounting in their daily work lives” (Ahrens and Dent, 1998, p. 4). Moreover, employing multiple interviews and multiple observations are important when addressing the challenges to validity and reliability (McKinnon, 1988).

While the research methods detailed above can provide useful accounts of studying accounting in context, it is important to establish an “audit trail” for the fieldwork (Atkinson and Shaffir, 1998). This is because credible research can be achieved by presenting evidence of the field materials, such as diaries, charts and records of interactions and observation” (Ahrens and Dent, 1998). During the course of fieldwork, many interviews were recorded on a digital recorder, while information relating to observations was noted in research diaries. In addition, early data interpretation and data follow-up with key informants and respondents were also noted, together with methodological issues.

#### **3.4.2. Data analysis: iterative process of data analysis**

While preliminary analysis during a fieldwork stage was important in encouraging in-depth understanding of emergent issues, a more comprehensive analysis was completed immediately after the fieldwork. Immersion in data by listening to the audio record several times helps to trigger the situational context, thus enabling the researcher to become familiar with the data. I used mind-mapping and Nvivo to

make connections between transcripts and to identify themes, as well as linking the themes to the literature.

An iterative process was adopted in the analysis of both the preliminary data as well as the data collected after fieldwork had been completed. In the former, I had to decide which follow-up questions to ask, while after the end of the fieldwork the choice had to be made about which data and theory should be chosen as the reported findings. In both stages, I constantly moved between data and theory until a “fit” between theory, data and methodology was achieved (Ahrens and Chapman, 2006).

To enhance the analysis further, I discussed my findings with several doctoral colleagues, supervisors and key informants in the field organization, as well as with colleagues participating in conference. On-going discussion about my research findings helped to produce convincing research findings as this process involved challenges to my interpretation.

#### **3.4.3. Writing a report: “Rich description and thick explanation”**

The iterative process described above implies that data and theory are inextricably linked; the research output reflects such a combination. Ahrens and Dent (1998) suggest that the process of theorizing is an attempt to provide a faithful description of data, “moving systematically from field materials, through interpretation, to explanation” (p. 9.).



Ahrens and Chapman (2006) states that:

“Doing qualitative field study is not simply empirical but a profoundly theoretical activity. (...) with qualitative methodology goes an acknowledgement that the field is itself not just part of the empirical world but it is shaped by the theoretical interest of the researcher” (p.820).

### **3.5. Conclusion**

This chapter describes the research approach adopted for studying the implementation of supply chain accounting. Founded on constructivist ontological and epistemological assumptions, the study was conducted on the basis of ethnographic fieldwork. In addition, the study followed an aspect of interpretive research in order to investigate the different uses of accounting in supply chains. The research methods employed to collect the qualitative data, such as observation, interview and document review, have been highlighted. Lastly, I have discussed how to attain good qualitative research and attempted to meet the criteria to achieve a credible research.

## CHAPTER 4

### **The Dynamics of Performance measurement system in Supply Chains**

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#### **4.1. Introduction**

Supply chain management (SCM) has received considerable attention over many years. With SCM in place, many organisations have widened collaboration from internal to external parties to effectively manage their supply chain operations. Such cross-boundary integration allows greater opportunities for business partners to respond promptly to supply chain needs. However, not all integration can achieve the desired outcome. The risk of opportunism, conflicts and diversity (Free, 2007) and different expectations (Chua and Mahama, 2007) are inherent in many inter-firm relationships. The complexity and dynamic nature of the supply chain give rise to control and coordination mechanisms as management and their allied partners continually seek ways to collaborate. The management of inter-firm relationships is therefore not without its concerns for identifying an appropriate governance mechanism (Gietzmann, 1996).

While a governance mechanism such as control system is designed, adopted and implemented within inter-firm setting, its impact on inter-firm alliances varies (Free, 2007; Chua and Mahama, 2007). If within an organisational boundary, accounting and control mechanisms have been used in different ways across divisions, depending

on local concerns and priorities (Ahrens and Chapman, 2002; Ahrens and Chapman, 2004) or economic and social background (Ahrens and Mollona, 2007), the reality of the use of accounting in an inter-organisational context is more complex because its functioning transcends organisational boundaries (Hopwood, 1996). Moreover, the uses of accounting and control systems are frequently associated with unintended consequences (Argyris, 1990). People are likely to respond to control measures by developing resistance (Henri, 2006; Markus and Pfeffer, 1983; Malmi, 1997) or becoming defensive (Jaworski and Young, 1992; Argyris, 1990), thus resulting in unintended consequences.

In the accounting literature, extant studies have indicated the existence of many types of control mechanisms in inter-firm relations (see review of Caglio and Ditillo, 2008; Meira et al., 2009). For example, drawing on economics theory, many studies suggest that inter-firm controls can be designed optimally based on bureaucracies, market or trust (Van Der Meer-Kooistra and Vosselman, 2000; Langfield Smith and Smith, 2003; Cooper and Slagmulder, 2004). Several other studies have offered an alternative perspective with respect to control development in inter-firm settings: actor network theory (ANT) perspective offers an understanding of how accounting is viewed as having both a technical and a social role that is capable of influencing network relations (Chua and Mahama, 2007; Mouritsen, et al., 2001; Mouritsen and Thrane, 2006), while a more recent inter-firm accounting study by Free (2007) offers a supply chain accounting typology based on coercive and enabling features.

The classification of coercive and enabling supply chain accounting that is developed by Free (2007) provides useful framework for exploring the ways in which supply chain members enact supply chain relationships. Following the notion of coercive and enabling controls by Ahrens and Chapman (2004), which was introduced by Adler and Borys (1996), he suggest two ways in which supply chain accounting and controls can make an impact on employees' attitude. In the first case, he illustrates how the coercive uses of supply chain accounting constrained the effort of members of the supply chain, leading to unfair treatment and an atmosphere of distrust (i.e. coercive formalization). In the second case, enabling uses of accounting fostered the employees' effort towards opportunity for improvement and learning, thus exhibiting trust and sharing (i.e. enabling formalization).

Depending how it is used (Agyris, 1990), accounting and control thus may lead to different consequences. Mouritsen et al. (2001) found the practice of OBA between buyer and supplier for example resulted in intended consequence of achieving transparency, allowing both parties to explore cost reduction initiatives. On the other hand, Chua and Mahama (2007) show the unintended consequence of the use of performance measures where a different perception towards "fair and transparent pricing" gave rise to distrust in the outsourcing relationship. Much remains to be known about the ways in which accounting is used in inter-firm alliances (Chua and Mahama, 2007; Free, 2007).

This study attempts to build on recent research relating to supply chain accounting (Free, 2007; Chua and Mahama, 2007) using insights from a field study of a multinational manufacturer and its relationship with major customers. Drawing on the coercive and enabling controls framework (Ahrens and Chapman, 2004; Free, 2007), as originally developed by Adler and Borys (1996), my study examines whether the simultaneous use of coercive and enabling approaches, as shown in Ahrens and Chapman (2004) in the context of hierarchical relationships, is also helpful in understanding inter-firm relationships such as those between manufacturer and customers. In addition, the study demonstrates that the interactions arising from the co-existence of enabling and coercive orientation produce dynamic tension. The enabling approaches become exploitative when the *flexibility* element paves a way for defensive behaviour.

The chapter is organized into five sections. Section 4.2 presents theoretical backgrounds by focusing on the key concepts of supply chain accounting and controls followed by a brief discussion on coercive and enabling framework. The subsequent three sections report the empirical data: first of these introduces briefly the operating environment and key performance measures in the case company, while the other two sections explores the simultaneous uses of the coercive and enabling controls of two manufacturer-customers relationships. The subsequent provides discussion while the final section presents the conclusion of the study,

## **4.2. Theoretical framework and literature reviews**

### **4.2.1. Accounting, controls and inter-firm relationships**

In response to Hopwood's call (1996) for research to explore the role of accounting across organisational boundaries - as indicated in chapter 2, many researchers have attempted to apply various theoretical frameworks to better understand the inter-firm setting. The growing research interest in this area has focused on understanding the nature of inter-firm accounting and controls, drawing on various theoretical perspectives such as transaction economics theory (Hakansson and Lind, 2004; Langfield-Smith and Smith, 2003; Seal et al., 1999), agency theory (Baiman and Rajan, 2004), structuration theory (Seal et al., 2004), ANT (Mouritsen et al., 2001; Chua and Mahama, 2007; Mouritsen and Thrane, 2006) and coercive and enabling theory (Free, 2007). While many of these studies have shed light on the roles of accounting in the choice of control designs in inter-firm alliances, few have highlighted its implementation processes.

One approach to studying processual uses of inter-firm accounting has been conducted using ANT. Mouritsen et al. (2001) use ANT to demonstrate how the use of inter-firm accounting in outsourcing arrangements has both intended and unintended consequences. The use of OBA, in particular, was aimed to keep buyer's visibility over supplier's production processes and thus reduce information asymmetry between them. However, there were unintended consequences. The

discussion about accounting and production information led to a re-definition of the buying firm's core competencies. Information related to production capacity, time and cost made it possible for suppliers to suggest opportunities for production flexibility and thereby to improve efficiency, where they focused more on technology coordination rather than technology development.

While Mouritsen et al. (2001) focus on the enabling role of accounting in outsourcing, Chua and Mahama (2007) illustrate the processes of developing accounting controls in long term supply alliances. They show several accounting and controls measures that were trialled to improve outsourcing and relationship performance. They found that a buying firm used accounting controls to coerce suppliers into adhering to their expectations. However, different expectations, meanings and perceptions of what constitutes good measures created conflicts between the partners. In a similar way to that described by Mouritsen et al. (2001), there was an unintended consequence. While the process of developing the "best fit" accounting system enabled the buying firm to improve its capabilities, thus changing its organizational identity, it also altered the social relationship identity from trust to distrust.

Cuganesan (2006) explains the dynamic interactions between informal and formal controls in inter-organisational relations where their dominant function co-evolved over time. In the initial phase, the study described the dominant role of supply

function over accounting and at the same time illustrated how informal controls, such as a trust system, were in place. The study later reported that a new position of management accountant was created to monitor the supply processes when the lack of formal control brought about tension and disorder in the supply network. Ultimately, the accounting function regained its prominence and more formal procurement procedures were introduced. Indeed, soft-contracting was displaced with a supply agreement in order to highlight expectations of supplier performance. The study demonstrates how the dominant functional specialist, such as the accounting and supply functions and their interplay, can influence the inter-organisational relationship.

These studies suggest that firms that enter into inter-firm arrangements should consider the ways in which the controls are used giving rise to dynamism within the organisation (Jorgenson and Messner, 2009) and between organisations (Free, 2007). Within an organisation, the notion of balanced use of controls, for example, has raised the issue of dynamic tension (Henri, 2006; Mundy, 2010). Traditional controls are characterised as having elements of rigidity (Hopwood, 1972), thus potentially inhibiting the opportunity for learning and improvement (Dent, 1990). A significant body of literature has suggested that innovation, learning or improvement can be achieved when flexibility is inherent in an organisation (Davila, 2000; Jorgenson and Messner, 2009; Mouritsen, 1999). As a result, many studies have attempted to examine the ways in which both flexibility and efficiency can be achieved (Ahrens



and Chapman, 2004; Simons, 1990; Brown and Eisenhardt, 1997; Jorgenson and Messner, 2009; Henri, 2006; Marginson, 2002).

With regard to the simultaneous achievement of efficiency and flexibility, a similar framework has been developed in management literature (Adler and Borys, 1996), namely, coercive and enabling formalization. The concept has been applied to accounting literature (Ahrens and Chapman, 2004; Chapman and Kihn, 2009; Jorgenson and Messner, 2009; Wouters and Wilderom, 2008; Free, 2007) and has been useful in arriving at an understanding of the features of MCS and its development and uses both within and between organisations. For example, recent research by Ahrens and Chapman (2004) offer a perspective on how an organisation used an overlapping approach to controls to achieve efficiency and flexibility. Hakansson and Lind (2004) argue that the same inter-firm context may exhibit multiple control patterns - for example, “market-based patterns may coexist with a bureaucracy pattern” (Chua and Mahama, 2007, p. 51).

In this study, I apply the coercive and enabling framework to study the supply chain control practices in manufacturer and customer relationships. I specifically refer to Ahrens and Chapman (2004) to explain intra-company control measures, and to Free (2007) to explain inter-company control measures. While Free (2007) demonstrates that accounting uses in the manufacturer-customer relationship can be drawn on in either a coercive or an enabling approach, my study found that supply chain

relationships cut both ways, thus exhibiting simultaneous use of coercive and enabling approaches to control. The concepts of enabling and coercive are explained further in the following section.

#### **4.2.2. Coercive and Enabling Approaches of Supply Chain Accounting and Controls.**

This section provides an explanation of coercive and enabling formalization as proposed by Adler and Borys (1996) and its application to management accounting, including supply chain management. In general, a coercive system specifies organizational rules in detail in order to control employee behaviour, while enabling formalization enables employees to respond effectively to uncertainties and to stimulate decision-making. In order to determine whether a system coerces or enables, Adler and Borys (1996) propose four integrated design principles: *repair*, *internal transparency*, *global transparency* and *flexibility*. *Repair* refers to the system's characteristic that allows employees to modify or improve work process. *Flexibility* denotes the employee's discretion over the use of a system. *Local transparency* suggests the availability of information for employees to understand the system and its status. *Global transparency* concerns the intelligibility of employees to understand the overall context within which they operate.

Adler and Borys (1996) argued that it was important to classify types of bureaucracy (coercive or enabling) because the "employee's attitude to a system depends on the features of

the type of a system with which they are confronted" (p. 66). As mentioned in chapter 1 (p. 12), they offer guidelines to distinguish coercive and enabling systems based on three dimensions: (1) features of the system (2) the design process of the system, and (3) the uses of the system. In other words, a system can be defined as either coercive or enabling by looking at "the features and the uses; the features themselves are influenced by the design process and the goals that govern it" (p. 70). In this regard, Adler and Borys (1996) argued that a system design (and its goal) determined its uses. For example, a system that was designed with enabling features could be used in enabling ways. On the other hand, a system with coercive features could lead to coercive uses. If a system's features and its uses were the same (enabling features with enabling uses or coercive features with coercive uses), then it could be said that the system had its intended effects, i.e. using Simons term (1995), "the predicted goal achievement". However, if the system's features were different from its uses (enabling features with coercive uses), then there would be unintended consequences.

Several studies in accounting and control literature have drawn on this framework in exploring control design and uses. For example, Ahrens and Chapman (2004) studied the control uses within restaurant chains. They propose a framework for enabling uses of control derived from Adler and Borys' design features (1996): *repair*, *flexibility*, *global transparency* and *internal transparency*. While Adler and Borys (1996) proposed a dichotomous nature of enabling and coercive bureaucracy, Ahrens and Chapman (2004) found that management control systems were drawn on both

coercive and enabling approaches. In general, enabling uses of MCS refer to the "attempts to mobilize local knowledge and experience in support of central objectives" (p. 296). On the other hand, a coercive use of MCS denotes "top down control approach that emphasizes centralization and pre-planning" (p.271). In this sense, they went a step further from Adler and Borys framework and suggested a complex and overlapping approaches to management control in operations.

Applying Ahrens and Chapman's derived notion of coercive and enabling controls to the inter-firm setting (2004), Free (2007) demonstrated how the supply chain relationship could become imbued with either coercive or enabling orientation. He illustrated how the enabling uses of supply chain accounting helped inter-organizational members to improve buyer-seller relationship. For example, through joint planning and forecasting, both supplier and buyer enhanced global transparency as they were made aware of key targets and figures of certain organizational units with wider organizational significance (ibid, p. 923). On the other hand, the coercive use of accounting through strict compliance to control measures was intended to create competition among suppliers, and thus resulted in conflicts in the supplier-buyer relationship.

While the two accounting studies as described above have applied both concepts of coercive and enabling control system, several other studies have focused on only the enabling aspect of control system within a firm. Chapman and Kihn (2009) suggest

that information system integration may foster enabling approach to controls and ultimately enhance its perceived system success and firm performance. Jorgenson and Messner (2009) studied the process of new product development and demonstrated employees' repair efforts in adapting the control system to their needs contributed to enabling controls. Finally, Wouters and Wilderom (2008) studied PMS within a logistic division and showed how the developmental approach resulted in an enabling formalization.

Thus far the studies that have explored the concept of coercive and enabling tend to focus on the uses of controls within a firm, with the exception to Free (2007) whose inter-firm accounting classification is well defined. Furthermore, the studies in this area focus on dichotomous nature of coercive and enabling rather than the interplay between the two. While Free (2007) studied enabling controls in inter-firm setting, his reported enabling or coercive uses was based on two different sets of dyadic relationship (ultimately different case organizations). Ahrens and Chapman (2004), even though describes coercive and enabling uses of control co-existed in the same context, they did not show the interaction between the two approaches.

When an organization designs a system, it does so by defining certain features of the system as well as setting the goal to be achieved. However, a system designed with certain features and goals can lead to both intended and unintended consequences. For example, Adler and Borys (1996) gave an example of a comprehensive tracking

and reporting system in the engineering change process within a company which was intended to encourage more transparency (i.e. an enabling feature). However, the system began to be used coercively when some managers attempted “to cajole their own department’s engineers and to disparage managers’ other rival department” (ibid, p.76), i.e. demonstrating coercive use. A similar finding was observed by Free (2007) when OBA, used to achieve transparency, which was an enabling feature, was in fact used to engender competition, i.e. coercive use, thus leading to distrust within the supply chain relationship. As will be shown later in this chapter, enabling use of performance measures does have an unintended consequence when coercive and enabling approaches to control coexist.

Following Ahrens and Chapman’s line of reasoning (2004), this study attempts to explore the complex and overlapping approaches to accounting and controls within the inter-firm context. In particular, coercive formalization is evident when there are both indications of tension and opportunism in pursuing the performance measures, while enabling formalization is observed when there is a trusting and collaborative atmosphere (Free, 2007). My study shows how the simultaneous use of enabling and coercive formalization results in intended and unintended consequences due to the interplay between coercive and enabling approaches.

#### **4.3. The supply chain operating environment and the performance measures in the manufacturing company**

ABC is one of the leading multinational food producers with headquarter based in Europe. Its operation in Malaysia has been established for about one hundred years and its long-standing establishment has resulted in the brand becoming very well known among local people. ABC (refer to ABC in Malaysia) has an extensive range of grocery products which are sold in the local market as well as in several Middle East and European countries. The various functions in ABC include production, supply chain, sales and marketing and finance, and these collaborate in many areas. ABC employs more than 3,500 staff to run the operation at eight factories, six sales regional offices, one national distribution centre and at its main head office.

Since its early operation, ABC has outsourced most of its product distribution activities to local distributors, based on arm's length dealings. These dealers, of which there were about two hundred throughout the country, were initially small size family businesses. Some of these were established deliberately to sell ABC's products and they have continued to exist through the generations up to the present day. However, when the multinational retailers began to expand in Malaysia, many dealers had insufficient warehouse capacity to meet the increasing volumes demanded by these retailers. Furthermore, since dealers operated independently from ABC, it was difficult to monitor their product distribution to retailers. Some dealers had difficulty in handling many deliveries at any one time, thus incurring penalty

charges by IKAs to ABC for failure to deliver. With the increase in demand as well as the expanding product category, ABC restructured<sup>2</sup> its distribution system.

The long-standing relationship placed the dealers as long term partners (LTPs). There were strong ties that bound the two parties. They continued to supply ABC's products to both modern and local retailers whereas international retailers were supplied directly by ABC. Despite the fact that the dealers were left with fewer customers, ABC saw the potential to take on the remote and rural market areas, especially in East Malaysia<sup>3</sup>. Although modern and local retailers were handled by LTPs, ABC classified modern and local retailers as one of its key accounts, namely national key accounts (NKAs). The international retailers who became part of ABC's distribution channel were classified as another key account, namely international key accounts (IKAs). During the study, LTPs represented about 65% of ABC's total sales, and IKAs about 25%<sup>4</sup>. Figure 1 illustrates the connections between ABC and its network of customers.

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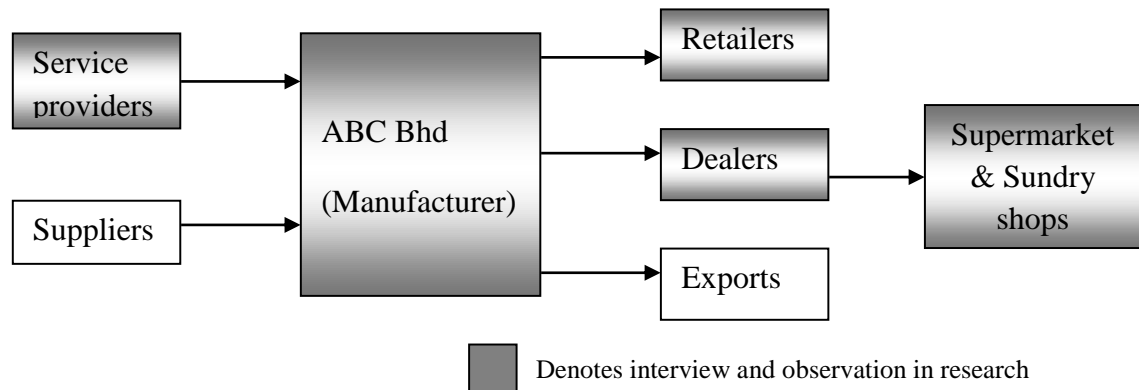
<sup>2</sup>There were a few major re-organizations that had been undertaken within ABC worldwide since 1995 involving many business areas, aimed mainly at facing a more dynamic environment and high performance organizations.

<sup>3</sup> Malaysia is divided into two geographical locations: West Malaysia, known as Peninsular Malaysia, and East Malaysia, or Borneo. East Malaysia is less developed than West Malaysia.

<sup>4</sup> Another 10% of ABC's sales comprised sales to hotel operators and fast food restaurants, classified as ABC professionals.



**Figure 1: ABC's Supply chain network**



ABC assigned one sales team to each LTP with the aim of focusing on the achievement of sales target. ABC rented a small office space at the LTP's office building for their sales team's operation. Each LTP had to "ensure supplies" only within an agreed sales territory and their marketing and sales development were led by ABC. Each LTP and the respective ABC's sales team were grouped into several areas, led by respective ABC's area business manager (ABM). Each sales area was further grouped into four regional sales branches, headed by the respective ABC's sales branch manager.

Since its early operation, ABC had been committed to the provision of quality products to its consumers. While the management of LTPs was prioritized toward sales target achievement through several different sales branches, the management of IKAs was directly handled by the commercial control division of the head office with customer service fulfilment appearing to receive higher priority than sales target

achievement. Customer service fulfilment was measured against customer service level (CSL) which was the responsibility of the supply chain organisation. There were four main IKAs: retailer A, known for its dominant position, followed by retailers B, C and D (ranked by sales value). Retailers A and B had their own distribution centre which they used as a cross docking centre. Retailer C had its own central distribution centre in which stock was kept and distributed on the basis of store requests. There was a problem at Retailer C with delays to store distribution which affected the on shelf availability at its outlets. Retailer D, on the other hand, did not own central distribution and thus kept a small amount of stock at each retail outlet. As a result, their orders were normally in loose boxes unlike most other IKAs, who ordered mainly in large quantities.

To support the achievement of sales targets, a separate function supply chain was in place (see appendix 1 for ABC's organization chart). Among the functional areas under SC were customer service, warehousing, demand and planning and supply chain development. These functions were measured with different KPIs, to support the main KPI, namely, customer service level (CSL<sup>5</sup>). The customer service department, which was directly in charge of the interests of customers, was the custodian for CSL. Customer service staff were held responsible for handling

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<sup>5</sup> CSL was calculated based on the difference between requested order quantity and delivered order quantities following the formula provided by ABC headquarters overseas.

customer related activities such as order management, distribution activities, customers' complaints and dealers<sup>6</sup> warehouse development. A further function of SC was warehouse operation. To maintain the smoothness of warehousing processes, inventory record accuracy (IRA) served the main KPI at the warehouse. SC also oversaw demand and supply planning activities, demand planning accuracy (DPA) being used as a performance indicator for the division.

Demand and supply planning at ABC was initiated by the supply chain demand and supply planning department. At the time of this study, the planning process was said to be based on the business model containing the two main distribution channels. The demand planner of the respective product category would run demand forecasting using statistical forecasting models, in which the historical sales data from customers was considered as one of the forecasting inputs. The historical sales data became the base demand which was then added to demand uplift, such as promotional activity provided by sales or marketing. The consensus demand plan (CDP) was then established after consensus meetings were conducted among the supply and demand planning team, the business units and the sales department, as well as the finance and control units. During the meetings, the total demand would also be compared with the

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<sup>6</sup> At the time of this study, the warehouse development programme was only intended for LTPS, not IKAs. Significantly, this was because LTPs kept about one month's stock cover, and thus it was important to educate them into maintaining proper warehousing facilities based on ABC's best practice. On the other hand, IKAs only kept about two weeks' stock cover.

sales target provided by head office. If a gap existed between the total CDP and the national target, more sales activities were probably necessary to increase the potential sales. There was thus repeated discussion around CDP as part of the demand planning process. Once a final CDP was decided, the figures were then passed on to the production team to complete material planning.

In addition to sales (sales targets being the main KPI) and supply chain organisation (CSL being the main KPI), ABC also had six product category business units. Their performance was measured against product growth, market share and profit. In order to maintain balanced product growth, they were also responsible for product innovation and renovation. While the popular brands were all highly demanded and regarded as must have brands among Malaysian consumers, it was a significant challenge for business units to face market acceptance for less popular or new products, not only among the consumers but also with customers. In particular, customers<sup>7</sup>, attempts to use ABC's popular brands to achieve their own (or shared) agenda created conflicts not only within ABC's operation but also between ABC and its customers.

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<sup>7</sup> The term 'customer' later in this thesis refers to LTPs and IKAs.

The next section elaborates on the dynamics of the inter-organizational controls – as reflected in the ways in which the performance measures were used. Two major KPIs were highlighted - sales target, which was emphasized when dealing with LTPs, and CSL, which was emphasized when dealing with IKAs – and these KPIs were drawn on both enabling and coercive ways. In describing the ways in which accounting and controls may give an impact to employees behaviour, I follow Wouters and Wilderom (2008)’s approach in studying “enabling PMS” where they focused on the attitude of employees (whose performance is going to be measured). The characteristics of the enabling and coercive introduced by Ahrens and Chapman (2004) – intra organizational control - and Free (2007) – inter organizational control - were used to frame such attitudes.

The chapter will discuss this further in later sections by showing the performance measure practices in the inter-organizational (ABC-LTPs and ABC-IKAs) arena were drawn on both coercive and enabling ways.

#### **4.4. Coercive and enabling uses of performance measures within ABC and LTPs**

##### **4.4.1. Coercive formalization: sales maximization logic and opportunistic atmosphere**

One aspect of KPIs is to ensure goal alignment. However, the employees - who were the subject of PMS (Wouters and Wilderom, 2008) - tended to be defensive in order to impress senior management about their performance. In ABC, such behaviour resulted in competitive situation among functional division. For example, one manager commented on the impact of KPIs on work practice at business units where they were competing to achieve the innovation and renovation target:

We are good at generating KPI, creating KPI or talking about KPI, but at the end we just measure our own KPI. [For example] the key KPI for product B is how fast they can do innovation and renovation of the product [...] .But if we want to do flexibility in terms of innovation and renovation, you don't really care about fixing the plan for the week. We are more concerned about how fast we can change the plan."

Demand and supply planning manager,  
Food and Beverages Business Unit, ABC

The manager acknowledged that the company established several KPIs to monitor operational performance and their significance were highlighted in formal and informal monthly meetings. However, there was lack of integration among the KPIs. For the staff at each business unit, they were competing to enhance their respective product categories. Having no specific sales target for each product category, however, made it easier for the sales division to achieve their target as they would

need to aim only for total sales regardless of any products. While products in high demand could easily be sold to any customers, the less popular products could possibly be sold to LTPs. More importantly, both business units and the sales division were able to manage their short term performance, as shared by one of the planning managers by referring to this current practice as managing for short term gain:

We stick to KPIs. We are not more for the consumer, really. In terms of selling out, we aren't really concerned about consumers' requirements. When I'm looking at this, we are pushing out [the stocks] to LTPs. But when LTPs go to the consumers, they [the stocks] are not really moving. For example, new products: there would be no problem for input sales, meaning what we sell to LTPs, we can always sell, like, 1000 based on the CDP of 1000. So that's how we managed the short term.

Demand Planner,  
Food and Beverages Business Unit, ABC

The emphasis on achieving KPIs therefore resulted in a focus on output rather than process. There was a lack of target alignment between the sales division and business units. In one of the surveys completed by the human resources division, when managers were asked to indicate their areas of priority for the following year, the sales director highlighted the importance of having cross-functional alignment between sales and business units. The survey was sent to all divisional managers requesting them to identify a few areas of priority that they considered important for further improvement opportunities. The findings of the survey were published in one of the company bulletins for internal circulation. In addition, he commented on “working with others” as one of his priorities in order to explore growth opportunities in specific channels and thus improve target alignment between them.

Such behaviour to achieving performance measures reflected the tendency to engage in shortemism (Van Der Stede, 2000), was also observed in managing the product distribution among customers. For ABC's sales team in particular, the input sales to LTPs would be a good opportunity for them to get more sales. However, this also ran the risk of opportunism within ABC's sales team itself and also among the LTPs. There were instances where ABC's sales team, in collaboration with LTPs, were likely to place as many orders as possible in order to meet the input sales target. The selling off of stock to LTPs could easily be conducted as they had collaborated closely with LTPs for many years. ABC's sales team would propose orders even though they were aware that the LTPs already had high stock cover.

They [sales branches] can get their [LTPs] data, but in a way, they don't really look at it. For example, let's say the target cover is one month, currently they are at 1.6 months - what does it mean? They don't need to order, right? But in reality they [sales branches] still order, because they have numbers to hit to meet the sales target. But what they actually need to do is to push [for selling activities] at the end. They have been doing very well all this while.

Demand and Supply Planning Manager,  
Food and Beverages Business Units, ABC

The excessive orders were placed with LTPs in order to increase their sales target (thus LTP's input sales) and "they have been doing very well all this while" as commented by the planning manager, particularly in relation to high value or popular brands. LTPs would accept the excessive stocks proposed by ABC's sales team because they had developed trust that they would normally be assisted with sales and promotional activities. The sales effort would support the LTPs in achieving throughput sales and, eventually, reduce the high stock cover level. Consequently,



LTPs would be able to receive incentives and ABC's sales team themselves would achieve performance target.

Motivation to maximize the sales incentives through the achievement of sales targets went beyond the inventory control measures however. While LTPs were convinced that both parties would normally collaborate to remove excessive stocks, other sales opportunities were also available to them. The LTPs could sell to runners - the unauthorised ABC's wholesalers - via a "back door"<sup>8</sup>, in which they could achieve quick cash sales. Runners were wholesalers who normally owned supermarkets and who were willing to buy ABC's popular products for the cheapest price possible for resale. I was informed by one member of staff that almost all LTPs appointed a runner attached to their business. Such a selling opportunity would normally occur towards the end of a month when the LTPs still could not hit their sales target, and also when the stock cover level remained too high. At this point, they would be willing to lose some of their price margin by selling at the invoice price. They would benefit by showing a total turnover value that would be captured as throughput sales, and would thus be entitled for other incentives. In other words, they would lose part of the price margin but would earn more from several other incentives. By showing a

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<sup>8</sup>The term 'back door' sales were used by one member of staff to describe the illegal selling activities carried out by LTPs. One of the terms in the distributorship agreement stated that in the case of the distributors colluding with any other party or engaging in any activities that contributed to direct or indirect competition with the products, the distributorship will be terminated.

good level of stock cover (as well as meeting several other criteria); they would be eligible for the distributor warehouse incentives scheme. In addition, they were also entitled to sales incentives in cases where they could hit the overall sales target.

With runners' operating "behind" LTPs, there was another consequence for the LTPs' network itself. There were some LTPs who complained that their retail outlets were no longer buying from them since they could buy ABC's products cheaper from the runners. Some small convenience shops stocked large amounts of ABC's products when, under normal circumstances, they would refuse to buy such large quantities from their own LTPs:

The complicated issue is that all the distributors [LTPs] have their own runner, all. So it's like a battle. That's the reason no one complains. I mean, they complain, but there is no black and white. Everybody is guilty, indirectly.

Commercial Controller, ABC

The runners thus poached small shops from other LTPs' district. As a result, their operation raised the issue of encroachment among LTPs and thus impacted on the stability of the LTPs' network. Attention was drawn to this matter during one customer review meeting that I attended. One sales branch manager suggested them to look for evidence (regarding which LTPs involved with runner) and explained that this issue was complex because it was also possible that the encroachment was due to the cheaper prices offered by IKAs who held the purchasing power to attract the LTPs' customers, as discussed later in section 4.5.1.

There was another consequence of creating excessive stocks. When LTPs failed to sell the high stock over a certain period, they could simply return these products to ABC as they reached their expiry date. To limit this, one KPI, namely market return level was created and this was linked to distributor warehouse incentives scheme (DWIS). However, this was also manipulated. It was brought to my attention by a member of staff who described how LTPs manipulated market return. He told me that, when LTPs reached the market return target for the month, they would split the amount of return and hold some of it to the following month:

For them [LTPs] everything is all about money for businesses. [If] they do well, they get money. If they do well, properly [following the rules], that's fine. They are all business people, they do cheat. They want to get the incentives. The return comes in but they do not report it and send it back [to ABC] next month. So that's cheating.

Central return warehouse manager,  
Supply chain division, ABC

The market return could thus be manipulated by showing a small amount of return that was still below the target amount, enabling them to be entitled for warehouse incentives. The control mechanism failed to capture this opportunistic behaviour among LTPs. At the end of the study, there was an indication that ABC planned to strengthen the market return policies<sup>9</sup> at LTPs.

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<sup>9</sup> A small team was set up to initiate activities relating to the market return and to share their findings during the meeting. Indeed, each business was expected to provide corrective actions to be taken.

The opportunism atmosphere described so far arose when LTPs, in collaboration with their respective ABC sales teams, tried to achieve sales target set for them. Despite the fact that they managed to hit the short term sales target (e.g. monthly or quarterly), this was accomplished partly through overstocking at LTPs, resulting in market return or illegal sales to runners. ABC therefore attempted to control product distribution among LTPs by creating an “allocation list” for the products that were frequently limited in availability or out of stock (normally the high demand products). The allocation list was prepared by respective product category business units at ABC, based on historical data. Following the concept of vendor-managed inventory (Kulp, 2002); ABC and LTPs had a pre-agreed stock replenishment policy (such as the stock cover level, the minimum and maximum stock level). This was established in order to ensure a “fair share” product distribution among the LTP network, as emphasized by one planning manager:

So for the fair share basis, we do allocation. That means that LTPs do not take more or less. They just take the exact quantity. Therefore, the other LTPs also can get some share. How they allocate is based on the stock cover. That is one reason. The second reason because the stock cover at LTPs is very high and then you have a lot of market return on those SKUs. Therefore you need to control the input to them, so you do the allocation.

Demand and Supply Planning Manager,  
Food and Beverages Business Unit, ABC

The product allocation list was used a basis to decide how many units for each limited product could be ordered by customers. A product allocation tracking sheet was shared with LTPs and they were encouraged either “not to order” more than the allocated amount or “to block the orders” for out of stock products. This meant that, when an LTP submitted an order for a specific product on allocation, the order

processing team in the supply chain would first check the quantity allocated for that particular LTP. The warehouse manager described the process of checking the quantity ordered against the quantity allocated prior to order processing as important, so that the order management team at the head office could “massage the figure” to avoid taking the allocation from other customers:

Once they [the sales branches] put in an order, then they transferred back to customer service, then customer service will massage the figure [...] Once confirmed, based on allocation, they gave just enough based on allocation, only then would they release for order processing, and if finished they passed to the transporter to do load planning [...] So it must follow allocation. If you just give, then there might be someone who will not get.

Warehouse manager,  
Supply Chain Division, ABC

The order screening process, in relation to the product allocation list, reflects the control measures, described by Free (2007), in disciplining and controlling opportunistic behaviour. This process was deemed necessary to ensure the products that were under constraint were fairly distributed to different channels. Otherwise, the quantity allocation and delivery for others would be affected, and therefore, too, the CSL performance. If there were orders that exceeded allocation, the orders would be labelled as “order exceeds allocation”<sup>10</sup>. Such a label was used as justification for the delivery failure that could “save” her life as the delivery failure was due to allocation issues and thus lay outside her control.

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<sup>10</sup> There was a standard code to assist management in systematically analysing the issues arising from delivery failure and in sharing these with other departments.

To summarize, it was observed that the employees whose performance was measured based on sales target behaved opportunistically in order to maximize the sales amount. They (both ABC and LTPs' sales people) tended to be defensive and aimed to achieve short term performance but ignored the long term efficiency for both firms. Next section highlights the ways in which performance measures within ABC and LTPs relationship were achieved. They were drawn on enabling ways when both parties collaboratively used them for shared growth.

#### **4.4.2. Enabling formalization: shared sales target and opportunities for growth**

Since the start of the relationship between ABC-LTP, ABC provided many initiatives to LTPs. As a leading firm, ABC introduced new business processes to LTPs from time to time so that better sales and distribution activities could be accomplished. For example, ABC introduced a handheld tracking device that enabled all sales representatives (either from ABC or LTP) to extract product information, as well as to store order information electronically. The latest development of order takings was conducted through the distributor management system in which all orders taken by sales representatives could be sent directly over the internet whenever they could locate a Wi-Fi spot. Such development could not only speed up order processing, but could also provide a faster update on inventory balances at LTPs. This resulted in improved decision-making for ABC since transparency was apparent between them.

Incentives included a monthly distributor management incentives scheme (mainly to encourage sales) as well as distributor warehouse development incentives (mainly to encourage good warehouse practices). In addition, ABC also gave sales commission to LTPs sales personnel whenever they achieved individual sales targets as well as the targeted call and targeted strike. This meant that, apart from throughput, they also have to achieve the targeted call and the targeted strike. Targeted ‘Call’ refers to the visit to outlets while targeted ‘strike’ denotes whether the outlets visited generate sales throughput. Indeed, more than 40% of the income of sales staff came from commission. Furthermore, each LTP would qualify for overall sales incentives if their sales staff could achieve their targets. These incentives were aimed to motivate employees and management in the sales department to consistently achieve monthly targets.

The incentives were linked to performance based on KPIs, depicted in table 1. There were five KPIs: input sales, throughput sales, stock cover level, the credit period and market return level. These KPIs were set by ABC with agreement from LTPs. ABC’s sales team was held responsible to ensure these KPIs were achieved by LTPs and it became shared KPIs between them. The input sales target represented ABC’s sales to LTPs, whereas the throughput sales were the sales of LTPs to their customers, i.e. NKAs. The input sales, namely, ABC’s sales target, were set by the ABC’s overseas headquarters following discussion with ABC’s head office and sales branches.

**Table 1: Monthly Key performance Indicator (KPIs) for LTPs**

MEASURES	MONTHLY	CURRENT YEAR TO DATE (YTD) ACHIEVEMENT	LAST YEAR TO DATE (YTD) ACHIEVEMENT	YTD VARIANCE (%) [CURRENT YEAR/	CURREN T YEAR ACTUAL
<b>INPUT SALES ('000)</b>					
Month to Date (MTD)					
~ Target					
~ Achievement					
~ % Achievement (achievement/target)					
<b>THRUPUT SALES ('000) Month to Date</b>					
~ Target					
~ Achievement					
~ % Achievement (achievement/target)					
<b>LTP's STOCK COVER</b>					
(Target: 1.0 - 1.5					
~ Achievement					
<b>CREDIT DAYS</b>					
~ Achievement (Target: 36 days)					
<b>MARKET RETURNS Month to Date (MTD)</b>					
Achievement (Target: 1.25%)					



The throughput sales were normally based on historical sales and added to the incremental sales, as agreed by both ABC and LTPs. A further KPI was stock cover level, which indicated that about one and half month's stock cover should be kept, aimed mainly at supplying the outskirts market area<sup>11</sup> and was meant as guidance so that sufficient stock was maintained without being excessive. Credit period was a KPI with which LTPs normally had no problem as they used the bank facility to finance debts. The fifth KPI was market return, which was put in place to control the amount of stock that could be returned by the LTPs or their customers (NKAs<sup>12</sup>) to ABC.

While the KPIs were in place to ensure sales target achievement, this was not achieved through forcing but rather through the collaborative relationship with LTPs. ABC's director of supply chain denoted the collaboration with LTPs in terms of working together in sales area:

All these dealers have one area sales office with them and where sales area manager and some of the staff. This area manager will work with dealers, in terms of forward strategies and the sales target of the month, as well as its issues and resolutions. So in terms of working together, this is how we work together.

Director of Supply Chain,  
Supply Chain Division, ABC

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<sup>11</sup> The sales representatives undertook market visits to this area (either for the potential market or existing customers) only once or twice each month as they were located quite far apart and incurred high costs. For these visits, LTPs needed to have the supply ready for that period up to the next visit.

<sup>12</sup> NKAs comprised four large modern retailers and also a number of smaller traditional retailers.

Input sales were certainly important for ABC's sales team in order to demonstrate to their senior management that they could achieve the sales target set for their areas.

While these amounts were considered "sold" to LTPs, ABC did not limit its sales effort to LTPs. Rather, both teams (ABC and LTPs) worked together to implement the sales and promotional strategies issued by ABC's head office further to LTPs' customers. The managing director of LTP A commented on his sales target:

They don't simply impose [the sales target]. Because what they do, they will measure what we have done last year. And then, what ABC wants to do this year, then they will plug into us. To me, as a business man, we shouldn't be arguing too much about targets. The more you do, the more you make. You just go and do it. Achieve it, but if you get problem along the line, they will assist you.

Managing director, LTP A

The sales targets, either the input sales or the throughput sales, were thus regarded as opportunities to increase their revenue. This served as an important point of collaboration between the two parties. The presence of ABC's sales team at each LTP operation provided daily sales target monitoring that was appreciated by LTPs. ABC's sales field executive for example would normally lead a weekly sales briefing relating to head office's marketing and sales activities to all sales representatives. Frequent meetings, either formally or informally, enabled regular exchange of

information that enhanced global and local transparency<sup>13</sup> (Free, 2007) and these were used to increase shared business growth.

Concern about the sales performance of LTPs, such as the performance of their channel and category, as well the performance of their respective sales personnel, was raised in monthly operation meetings between ABC's sales management and its corresponding LTPs. Deviations from sales targets were subject to constant supervision, with assistance from their superiors that was constructive rather than punitive:

We are on an incentives basis. So we will try our best to achieve the target. No penalty, it just that we don't get the incentives. We will then inform our area business manager. Our area business manager will know and then they will come back to us and we will discuss what we can do and what we cannot do.

Managing director, LTP B

The performance measures indicated "opportunities for learning and continuous improvement" between partners and thus resulted in a trusting relationship (Free, 2007, p. 924). The frequent interactions particularly around the issue sales target achievement, led to strong collaboration as both parties shared common business objectives. A formal KPI performance meeting prompted further discussion of action

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<sup>13</sup> Among the information shared were LTPs' sales performance and their inventory balances, as well as ABC's sales and marketing plan and product information. These are discussed further in chapter 5.

plans for the underperforming product and channel category, thus allowing *repair capability*.

Within ABC itself, planning process was flexible as to accommodate the level of stock at LTPs, even though this sometimes led to deviation from best practices. One planner did admit that they did not follow the best practice set by the company and this was aimed at to avoid excessive stock cover for LTPs, thus allowing *repair capability*.

Sometimes when the stock cover at LTPs is too high, we have to reduce the CDP because we do not want to give them input sales. So, that's how we managed the short term. But it's not the way actually. We should not cut CDP, because that's not the CDP process already. If following CDP process, it must be based on trend, it must be on demand. It should be constant, it's not like suddenly it has dropped. We have to work on the sales part. If branches' stock cover is high, we have to put in more activities to sell out [...]. If we are looking at best practices, we don't have that yet."

Demand Planner,  
Food and Beverages Business Unit, ABC

Indeed, when LTPs sought more allocation on certain products, it was the discretion of business units of ABC, whether or not to increase this provision. LTPs could, through ABC's sales team, make a request to increase or decrease the allocation amount at any time:

We have a certain influence on the orders, meaning we know what we want. Maybe some allocation is too little, so we request more. Some of the allocation is too much, and then we ask them to hold. They will judge whatever is requested and they will process.

Managing director, LTP B

The planning process thus embedded with *flexibility* in order to respond to particular situations (Ahrens and Chapman, 2004). One sales branch manager pointed out that the planning process involved "fine tuning" between the sales forecasts provided by business units and those of sales branches, as well the capacity of the production plan.

However, the process was very complex. He also expressed his concern about the disintegration between business units and sales units:

The only thing is the sales forecast and business unit forecast is a bit different, so there will be fine tuning where our representatives from sales and representatives from business units will sit down and agree to one number. Because this has got to do with what they can produce [production capacity] [...]. As the business becomes bigger and bigger, it becoming more complicated.

Sales manager, Branch A, ABC

Depending on the needs of LTPs, each branch manager would also spend their time accordingly to attend the monthly operation review meeting so that priority could be given to those LTPs with poor performance.

We have 14 monthly operation meeting running with LTPs. So I'll take turn, to go from one LTP to another, depending on their needs. If let say, LTP A's business is not that well, then that's the one that I frequently go. So, she [his secretary] will plan for me, and I will choose depending on the time where should I go. That's how you can see the collaboration between ABC and LTPs are strong. The LTP, on the other hand, they appreciate it very much.

Sales Manager, Branch A, ABC

Attending to LTPs specific needs reflected Free (2007)'s notion of *flexibility*, one of the features of enabling supply chain, where customization of implementation such as “adaptation to individual relationship” (p. 925) was necessary in the management of supply chain.

Indeed, there was also *flexibility* in terms of achieving some of the KPIs. For example, while the level of stock covers at LTPs was intended to indicate stock sufficiency (to replenish the LTPs' customers, especially those in far-reaching areas) and efficiency (to avoid overstocking of products). However, such a rule could be

ignored; suggesting *flexibility* according to Adler and Borys' enabling principles (1996) and this was acceptable within ABC and the LTPs. The stock cover level thus was used flexibly to reflect differing situation, to meet their sales target and it was ABC that could decide whether to follow or to deviate from the indicated level. Indeed, during discussion about KPI performance, one sales branch manager raised the issue of excessive stock levels, but merely reminded them to clear the stock as soon as possible without serious repercussion.

In sum, it can be seen so far that the emphasis on performance measures was drawn on both enabling and coercive ways. The enabling approach to performance measures were observed when ABC and LTPs attempted to achieve shared KPIs in the ways that contributed to both parties. On the other hand, coercion was apparent when ABC's sales team collaborated with LTPs opportunistically to hit their shared KPIs and their compliance was aimed to gain short-term performance without considering the long term implication to ABC's brand reputation. The next section discusses the relationship between ABC and IKAs in which coercive and enabling approaches towards performance measures were also evident.

#### **4.5. Coercive and enabling uses of performance measures within ABC and IKAs**

##### **4.5.1. Coercive formalization: CSL as an opportunity for control**

While LTPs represented small businesses, IKAs represented the high profile international retailers. They had established their own standard operation and all suppliers were expected to follow the requirements of their business. ABC's popular products were largely advertised as a loss leader in anticipation of increased sales for other categories at their stores. As noted by one commercial controller, who viewed their relationship with IKAs as problematic, since their loss leader strategy engendered competition among IKAs as well as LTPs:

The problem with these IKAs accounts is that they like to throw prices. They sell below invoice and they lose money, what we called loss leader. The strategy is easy: when you throw this one, maybe 90% who come to buy product X, they also buy other products. So its foot traffic to get people to come. They can afford to do that because they have the volume. There are the occurrences whereby the small sundry shops came and bought the big bulk.

Commercial controller, ABC

In order to implement the loss leader strategy, IKAs would normally prefer to use ABC's popular products. As a result, some NKAs, who normally bought from LTPs, would in fact also buy from IKAs in order to get the products at a cheaper price. I did come across few informal chats among sales staff about this and they shared photos showing price tags of under-priced products displayed at the sales outlets they visited. In the same way as runners presented threats, the problem with the loss leader

strategy at IKAs created conflicts among LTPs who were also losing customers to IKAs.

ABC's continuous stock replenishment was therefore very important to IKAs. This could be observed in their emphasis on the delivery performance measured by CSL. A relevant explanation should also be provided if they failed to demonstrate good performance. Strict compliance to CSL performance was important to ensure that they felt pressure as a result of non-delivery and failure to comply with delivery requirement:

To make sure what we order is what we get, explaining to us if the product that we ordered, we did not receive, why we didn't receive them and pushing back the information back into ABC to create essentially a bit of noise so that the production people, the marketing people, feel some pressure when they don't deliver to [Retailer A].

Procurement manager, Retailer A

With the emphasis placed by IKAs on CSL measurement, ABC devoted significant efforts towards achieving the CSL target. For example, at least one customer service executive, known as an implant, was dedicated to each IKA in order to ensure the monthly CSL target was achieved. An implant was stationed at each IKA office so that they could provide immediate feedback to their respective IKAs whenever there were problems.

To ensure good delivery performance, the implant had responsibility as a joint business planner with IKAs. However, this function was not fully realized. In a



customer review meeting at Retailer A, I observed the unreciprocated request from ABC to Retailer A's procurement manager to review ABC's forecasting for critical SKUs. The implant and account manager (from ABC) repeatedly tried to explain their issue with planning and forecasting. However, the procurement manager appeared uninterested in discussing this further, although he was aware of ABC's on-going issue with out of stock. While pointing to the next item on the agenda, he mentioned that they had their own forecasting system, thus it was difficult to match the forecasting needs of both parties.

With different sets of product forecasting, it was difficult for ABC to maintain good service performance, especially when certain products were out of stock or limited in availability. While the allocation system, as described in section 4.4.1 was used mainly to control the deviant behaviour of LTPs in order taking, priority allocation and stock reservation was instead given to IKAs:

They [IKAs] have one set of forecasts and we have one set of forecasts. So we - what's the word - we need to marry that [retailer A's] forecast and our forecast. Usually their forecast is lower than us so we have a lot of buffer with our forecast. It's just that we need to make sure that the forecast tally, meaning if they plan to take more, then we need to make sure that we have buffer for them, we have enough for them.

Customer Service Manager,  
Supply chain division, ABC

There were situations in which the implants worked overtime waiting for the incoming orders so that the orders requested were fulfilled. They would prefer to sit next to the order processing clerks, and sometimes together with a dedicated planner assigned for the respective IKAs, so that they could obtain information quickly on

product allocation and stock availability, thus ensuring the orders were fulfilled. These efforts were made in order to maintain a good level of CSL achievement. Indeed, if daily CSL performance was very poor, the supply chain customer service manager would normally call the implant (or other related staff) to his office to discuss the issue. Such confrontation, although conducted in consultative mode, was perceived as embarrassing among the staff since other personnel could observe it taking place in the manager's room, and commonly associated this with 'something wrong'.

To ensure good CSL, stock reservation for IKAs was also carried out to ensure that their orders were fulfilled. Moreover, they kept low stock cover compared with LTPs. This meant that, when the stock was reserved for particular IKAs, other groups of customers were not allowed to take these reserved products. This reservation system helped to keep track of the availability of products for IKAs in response to their needs. One demand planner highlighted the obligation to meet IKAs' allocation requirement as compulsory:

It's quite difficult to follow allocation for normal products [non-promotional items]. It could be, for example, that suddenly you have got ad-hoc activities requested from key accounts [IKAs]. It was like, in the middle of the month, you have one [IKA] asking for certain stock and the amount was big, say 10,000 cases, so it will affect them [their allocations]. And then, we have to fulfil the key accounts [IKAs]; we cannot say that we don't have stock. We still have to fulfil.

Demand planner,  
Food and Beverages Business Unit, ABC

Retailer A expected the implant to communicate their order requirements to ABC, and then tried to fulfil their requests:

If you are operating within a price sensitive market, and you know a large percentage of Malaysians is a price sensitive market, 60% of the market at least, promotion is desperately important. So, there is proper forecasting upfront collaboratively with the implant and proper supply chain management. So once the forecasting is moving up to their production site [of ABC], we aim for the products to arrive just in time for the promotion but ideally not too early.

Procurement Manager, Retailer A

For Retailer A, joint planning meant that ABC had to follow their forecasting plan rather than in reciprocity.

#### **4.5.2. Enabling formalization: CSL as an opportunity for improvement**

While the emphasis on CSL appeared to reflect IKAs' coercion, the placement of implants at IKAs helped to improve the relationship in several enabling ways. When discussing customer service performance in the monthly customer review meeting, a noticeable issue highlighted by IKAs was that CSL, as measured by ABC, was normally higher than that calculated. This occurred because ABC excluded quantities of unfulfilled order requests resulting from customer failure. For example, when a customer did not update prices or product changes on its database, thus creating incorrect orders (i.e. stating either the wrong price or ordering discontinued items), such orders would not be fulfilled, yet this would not be counted as delivery failure as it was considered the fault of the customer. Non-delivery of their orders would dissatisfy the customers (and supposedly be reflected in CSL), yet counting this as

part of CSL would reflect badly on their performance. The worst scenario would occur when there were a few customers who sometimes did not admit their neglect to update their database, which led to dissatisfaction and unresolved conflicts.

There was therefore argument over CSL measurement and the performance result provided by ABC was distrusted and unreliable. Because of this concern, a more detailed report of what was known as delivery performance (DP) was employed when feeding back to IKAs, and was included on the agenda in customer review meetings. Delivery performance provided details of the reasons for service failure from the viewpoint of both customers and suppliers. Additionally, explanations were provided by ABC for the actions to be taken in the case of non-delivery. In other words, details in measuring delivery performance initiated an action plan to improve existing conditions:

I need to look at DP, not CSL; CSL won't guide me to the right path actually. So what I do is, well, it doesn't mean 'its red, it's bad'. It's just to alert us to do something about it. What are the action-plans to resolve them? It can mean a lot of things; it's just for us to be aware.

Customer service manager,  
Supply chain Division, ABC

Feedback from customers was important to ABC in order to establish a service level that was agreeable to both parties to maintain a good relationship between them. Discussion around delivery performance highlighted the details of service failure, regardless of who was at fault.

One way in which the DP helped to improve the supply chain operation was the improvement in data alignment, which was achieved when discussion around reasons for delivery failure suggested customer inefficiency. Further investigation revealed that there was data misalignment between ABC and most of the IKAs. One retailer did acknowledge that delivery performance was affected by data misalignment and that ABC's role was important in ensuring that pricing and product updates from ABC to IKAs were correct:

From the delivery performance report, then we escalate the points like the master data, etc. So [for example], one item has been discontinued but we keep ordering. So the next order must be activated. So when she's here [the implant], she pushed [insist] and highlighted this.  
Supply chain collaboration manager, Retailer B

One manager also shared his concern on how the action plan attached to delivery performance could be used to help their customers, thus improving CSL performance:

[They ask]: 'If you don't have stock, fine, so what you going to do?' [...] so we informed them that we can't do anything because of the quality issue, for example. It's a general statement but the thing is customers appreciate if we tell them early with an action plan, of course. Action plan means maybe [for example] you asked the buyer to block the items because there would be no stock for three months, so they know.  
Customer Service Manager,  
Supply Chain Division, ABC

While there was a strict performance review with respect to service delivery (i.e. CSL or DP), such a measure was changed to adapt to the needs of the inter-firm relationship. The CSL, as measured and presented by ABC to IKAs, reflected ABC's internal performance needs but failed to measure those of IKAs. The change of performance measure from CSL to DP reflected the flexibility in performance

measurement uses between the manufacturer and its retailers. To this end, the PMS implementation process was enabling, since it was adapted and changed, taking shape within the implementation context (Wouters and Wilderom, 2008). An enabling approach to performance measures was therefore adopted by ABC and IKAs, reflected through the adaptation to a new reporting format.

Despite receiving the detailed explanation from the DP-based report that could benefit both parties, however, for internal purposes, ABC continued to employ CSL performance as a basis for reporting. In other words, while discussion around DP took place with IKAs in order to meet the expectation of inter-firm performance reporting, the monthly internal meeting still focused on the achievement of CSL. A consideration of DP would give a poor impression, even if this was for the benefit of both parties. The two measures<sup>14</sup> continued to co-exist at SC.

The spirit of achieving CSL could be observed in the routine tasks of the implant. For example, the implant would normally work with their demand planners (from ABC) to update the product allocation list on a daily basis. This list was useful to help and persuade IKAs to decide product availability and thus to respond more quickly in

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<sup>14</sup> The two measures, delivery performance and customer service level, indicated the same, i.e. customer service fulfillment. Delivery performance considered the factors from both sides: failure by ABC and its customers, while the CSL measure was concerned with the factors influencing the delivery performance from the ABC side only.

case certain orders could not be fulfilled. In the case where IKAs insisted on placing orders for unavailable products (based on the allocation list), the implant would try to find ways to fulfil the orders, such as requesting from business units the quantities allocated for LTPs. While the allocation system was practiced in a way that restricted orders incoming from LTPs, there was some flexibility over the use of the allocation list when dealing with orders from IKAs.

One of the customer service managers shared his team's experience in maintaining good CSL. He explained that the implant who was attached to Retailer A normally exercised a certain influence in the replenishment process and was able to manage the quantity ordered to show that every store (of retailer A) could receive certain units, although not all of the ordered quantity:

[If] the replenishment system is 100 units but we can only allocate 10 [...] then she can manipulate it. Since she looked at the order of 100, she slashed it and replaced with 10. That's why the CSL is very nice.

Customer Service Manager,  
Supply chain division, ABC

My informal observation of one of the order processing clerks also revealed this manipulation, carried out with the cooperation of a lower ranked manager at Retailer A. After processing orders for Retailer A, the clerk phoned the ordering store manager to request the re-order of a particular item. As the item requested by the store was temporarily out of stock and would only be available after two days, he requested him to change the date of order. It was important for her to adjust the

timing of the order request date closer to the date that the products became available in order to maintain good CSL. When asked about this, the clerk shared the fact that it was important for her to build a good relationship with the team at Retailer A and admitted that the higher level of management at Retailer A was not actually aware of such practice. Such a request could easily be granted with the store manager (of Retailer A). One commercial manager addressed the current practice of order processing which affected the product planning process:

In terms of order processing, the system that we are supposed to have is where IKAs and LTPs can order any product. But now, it doesn't work that way. [...] it has been locked at the first level under the out of stock list. And then you also have one more list called the allocation list for the very high demand products. So we allocate a certain quantity, a specific quantity to specific IKAs and specific LTPs. So they cannot simply order. So these parameters that we set will affect the demand planning, because we've already interfered. [Besides,] for LTPs, let's say if they don't have [product A], they still want to go for the target; the next option is that they will try to get [product B] or whatever stock they can get hold of. So when they order, it creates demand in the system.

Commercial Manager, ABC

Indeed, when questioned about ABC's order management, the procurement manager of Retailer A stated that he would not be willing to collaborate with ABC in terms of order proposal:

We would allow the order to go through, because we need to be able to measure and show the short term achievement. So, in particular, they [ABC] would very much want us not to order it because they don't want to highlight to their general manager and everyone else that they didn't send it to us [...] We would continue to order what we want, and part of that logic is the sooner it becomes available and they get it in their hands, they can send it to us. If we wait for them to tell us they have got it, then they have to wait for the lead time for them to get it to us. So our system will continue to turn the orders out whether we have received them or not.

Procurement Manager, Retailer A



Therefore, there was a “vicious cycle” that resulted in on-going product constraint. The order filtration process, the product allocation list and the out of stock list imposed on LTPs, all affected the planning and forecasting process, which in turn resulted in continuous under- allocation for high demand products but over-allocation for less popular products.

This section has demonstrated the ways in which ABC acted upon CSL measures that reflected their performance with IKAs, exhibiting both coercive and enabling orientation. The coercive use of PMS can be observed when CSL was used as an opportunity for control. There was a lack of joint planning and forecasting between ABC and IKAs, but ABC reacted to this by creating priority allocation and stock reservation to meet the demand from IKAs. This section has also described the enabling use of PMS where CSL was used to seek improvement where these benefitted both parties. In addition, the role of the implant assisted in maintaining good service performance, although this led to both intended and unintended consequences.

#### **4.6. Discussion**

According to Adler and Borys (1996), employees’ attitude to formalization, either positive or negative, depends on its features, development or implementation process. This field study of the PMS in operation focused on the ways in which the supply chain members (manufacturer, retailers and dealers) acted upon the measures set for

them. Following Free (2007), who adapted Ahrens and Chapman's framework (2004) to study supply chain accounting and controls, the present study argues that PMS in the supply chain can be drawn on in both coercive and enabling ways. In addition, the study highlights the implication of coercive and enabling overlapping approaches. To this end, the study presents ethnographic material on the mobilization of PMS in a multinational food manufacturer (ABC) and its approach to managing two major groups of customers - retailers (IKAs) and dealers (LTPs). The two main findings are discussed below.

***PMS are drawn on in both coercive and enabling ways***

The coercive vision of PMS was reflected in the ways in which the supply chain members drew upon KPIs - sales target and customer service level – that sought the opportunity for control (Free, 2007). Within the relationship between ABC and its LTPs, the PMS was characterized as coercive when the sales team of ABC and those of LTPs responded opportunistically towards the system, thus creating dynamism in the inter-organizational arena. ABC's organization focused on output measures through KPIs which resulted in its staff engaging in defensive behaviour. While there was flexibility in complying with stock cover level (one of the KPIs), the effort towards sales target achievement went beyond control. They tended to keep excessive stocks at LTPs. As a result, some LTPs attempted to become involved in illegal sales. Indeed, ABC's sales management had yet to take aggressive action to curb such activity. In addition, there were also LTPs who could not sell products that had

reached their expiry date (through either legal or illegal sales channels), and therefore returned them to ABC, at the same time manipulating the reported amount to ABC in order to demonstrate good product return performance.

A similar situation which demonstrated coercive uses of PMS was also observed within the relationship between ABC and IKAs. The coercive approach was evident in the ways in which CSL were used by IKAs to coerce ABC. For example, IKAs imposed strict compliance with CSL measurement in order to coerce ABC to fulfil their demand for popular products. These products were normally sold at a discounted price (i.e. loose leader strategy) in order to attract consumers to their retail stores. Due to their strict compliance with CSL, ABC assigned a member of staff, known as an implant, to ensure good service level. With the emphasis on CSL as the main KPI, the implants put the utmost effort into avoiding failure in delivery. For example, they worked together with product planners in order to get prompt information for product allocation and its availability to ensure order requests by IKAs were fulfilled. Indeed, they were expected to understand the product requirement of IKAs and thus to incorporate them into ABC's planning. Joint product planning therefore seemed impossible as IKAs merely expected ABC to meet their needs. To compensate the forecasting difference between ABC and IKAs, an amount of stock was reserved for IKAs in the event of unexpected demands from them. The IKAs' requirements forced on ABC thus indicated coercive orientation.

While there was coercive use of PMS, it was also used in an enabling way. LTPs perceived the sales target as an opportunity for increased revenue and were therefore motivated to exert more effort to achieve it. ABC viewed partnership with LTPs as an opportunity for achieving sales target, so created shared KPIs as monitoring tools. The shared KPIs were achieved jointly between them rather through enforcement; this prompted boundary spanning activities across both firms, thus enhancing *global* and *internal transparency*. Discussion about the KPI measures was intended to identify an action plan, providing both parties with an opportunity for improvement and allowing *repair capability*. *Flexibility* was also evident where ABC customized its operation in terms of product planning and performance review towards LTPs' needs. Free (2007) argues that enabling supply chain accounting and controls requires an adaptation to the individual relationship. The inventory level of LTPs was considered as part of the product planning process at ABC. In summary, the sales efforts made towards achieving targets were the result of their collaborative and trusting relationship rather than through forced compliance.

Enabling uses of PMS were also evident within the relationship between ABC and its IKAs. In particular, the efforts to meet CSL performance were carried out in enabling ways when CSL was used by both parties to explore improvement opportunities. The change of PMS reporting to IKAs, from a CSL-based measure to a total delivery performance (DP)-based measure, exhibited the enabling approach to PMS. Wouters and Wilderom (2008) describe how the developmental approach to PMS in which

modifications and experimentation were conducted to reflect local needs, contributed to enabling PMS. In this study, the enabling approach to PMS implementation allowed changes in the PMS that benefitted both parties – from an emphasis on CSL to DP. The discussion about PMS also helped to improve the supply chain operation - for instance, by enhancing data alignment between ABC and its IKAs as well as avoiding delivery failure through agreed order proposal.

***The co-existence of coercive and enabling tendencies leads to exploitation of enabling PMS***

This co-existence of enabling and coercive tendencies leads to another finding: the flexibility, one of the enabling features, fosters supply chain exploitation. As reported in my study, the stock cover target was put into place as one of the KPIs to discipline LTPs in order to avoid overstocking, but deviation was at times also acceptable. The action of bypassing the KPI for stock cover thus addressed the flexibility element. The assumed excessive stock was acceptable - indeed it helped to achieve sales targets as both parties worked together to increase sales effort at a later date. However, such excessive stock also encouraged illegal sales, which not only affected the instability of the LTP network but also might have led to brand risk reputation due to poor product presentation and inferior product quality, i.e. expired or damaged products, as ABC had no control over runners.

Defensive behaviour was also observed within the relationship between ABC and IKAs. CSL was central to performance measurement both within ABC itself and between ABC and IKAs, so product availability to fulfil customers' orders was critical. ABC therefore created a product allocation system to assist in fulfilling customers' orders. While the allocation system was used strictly to control LTPs order requests, there was some *flexibility* for IKAs. Indeed, some products had been reserved for IKAs to meet unexpected demand. With the opportunity to become closer to IKAs and to build good contact with operational staff at IKAs, the implants succeeded in negotiating with them to place the purchase orders according to their allocation. When it was difficult to change the order quantity (and thus likely that CSL would fail), there were also instances when order adjustment was made with agreement between ABC's order processing clerk and the corresponding staff at IKAs. Such an action, however, also reflected defensive behaviour. In other words, the emphasis on compliance with the performance of KPIs resulted in defensive behaviour as they tended to demonstrate good performance to their superiors in the short term but undermine long term profitability.

Simons (1995) argued that the mixed uses of control created opposing forces that could be used to achieve dynamic tension and to allow for effective control of the organisation. Lewis (2000) asserts that:

"[t]ension represents a double edged sword. It may trigger change while simultaneously activating defensive routines that inhibit change" (p. 763).

My study has observed that the interplay between coercive and enabling systems, as a result of simultaneous use, produces dynamic tension. The mixed uses of enabling and coercive PMS resulted in efficiency and flexibility (i.e. intended consequence), but it also fostered defensive behaviour (i.e. unintended consequence). According to Adler and Borys (1996), it might be difficult to sustain either a purely enabling or a purely coercive orientation:

[the] forces favouring the enabling orientation coexist with the formidable forces that favour coercion. Lacking compelling evidence of, or argument for, the dominance of one force over the others, we conclude that the choice between types of formalization is not merely illusion whose outcome is dictated by underlying structural forces. The relevant internal and external structural factors cut both ways, and the outcome is the object of an on-going struggle. (p. 83).

It could be argued that the same forces that foster enabling might also encourage coercive orientation, an issue that is a subject for further research. Adler and Borys (1996) have discussed a feature of enabling, i.e. flexibility, that can create learning opportunities and at the same time present risk. Indeed, many studies of enabling controls have shown that flexibility embedded in an enabling system could bring an intended improvement and innovation (e.g. Ahrens and Chapman, 2004). In order to foster flexibility, Jorgenson and Messner (2009) argue that a “failure-accepting culture” is necessary, although not without a risk. However, no studies so far have elaborated on the risk embedded in flexibility.

As evident in my study of the relationship between ABC and its LTPs, flexibility was evident when it was possible for both parties to simply ignore some of the key targets

set, anticipating inefficiencies or unachievable targets to be fixed at a later date. The sales team was aware that it was likely that it would not be penalized for waiving the rules (for instance, to keep excessive stocks) – thus inducing risk-taking and facilitating flexibility (Jorgenson and Messner, 2009). The excessive stocks that later prompted further sales exploitation therefore seemed possible and sensible. While such flexibility appeared manageable, and indeed important, in order to achieve the sales target, there were unintended consequences. The excessive stock was also sold through illegal sales to comply with short term targets even when it was known that this could be dysfunctional for the firm. Within the relationship between ABC and its IKAs, the *flexibility* in achieving CSL (i.e. the process of achieving CSL) resulted in conspiracy among the lower level staff who had established a close relationship so that they could change order quantity whenever there was limited stock available. Defensive behaviour was therefore evident within the supply chain. I assert that the *flexibility* element paved a way for exploitation of the enabling system.

In summary, my study supports a proposal by Ahrens and Chapman (2004) in which overlapping approaches to control in operational management are useful to reconcile flexibly the needs of different constituents within an organisation. Extending this further, my study found the mixed uses of coercion and controls were also relevant in explaining the supply chain relationship. While Free (2007) argues the notion of a coercive and enabling dichotomy within different supply chain relations, my study illustrates the co-existence of coercive and enabling logic in the context of the same



supply chain. In addition, the present study demonstrates the interaction between the two approaches where the enabling use of PMS, when used simultaneously with coercion, becomes exploitative. It also helps organizational members to foresee the potential negative effects of such co-existence.

#### **4.7. Conclusion**

Using the concepts from the enabling and coercive approaches to control developed by Ahrens and Chapman (2004) and Free (2007), this study offers an understanding of the complex ways in which supply chain members employ supply chain performance measures. PMS in the supply chain relationship are drawn on both coercive and enabling ways: The coercive PMS is evident when there are indications of tension and opportunism, whereas PMS are drawn on in an enabling way when there are collaborative tones within the supply chain relationship. In addition, the study shows the dynamic interactions of this co-existence. The enabling approach, when co-existing with coercion, becomes exploitative – this was evident when the flexibility element fostered defensive behaviour. In other words, enabling features such as flexibility open up the possibility for exploitation of the control system itself.

I therefore suggest that the notion of flexibility as one element of an enabling approach to control (Ahrens and Chapman, 2004; Mouritsen, 1999; Jorgenson and Messner, 2009; Free, 2007; Wouters and Wilderom, 2008) should be used with caution. A truly enabling system with no shortcomings does not really exist. It is

difficult to distinguish for what purposes or reasons there is flexibility. My study indicates that the flexibility element of enabling (which could enhance efficiency) is also the element that fosters coercive orientation. To this end, the study therefore supports the notion of flexibility as explained by Chapman and Kihn (2009) where “unconstrained flexibility is unlikely to be beneficial” (p. 156). In the context where coercive and enabling approaches to control co-exist, the enabling system should be evaluated. The management of customers through PMS embedded with flexibility allows the organisation to improve its supply chain operation. However, it was observed that flexibility was also used to satisfy self-interest, exhibiting defensive behaviour. I argue that flexibility could result in both intended and unintended consequences. Chapman and Kihn (2009) write:

Consistent with prior research it seems that flexibility might need some supporting structure in order to lead to positive outcomes, and so flexibility on its own represents a necessary but not sufficient condition for performance. (p. 166)

In summary, I propose that the uses of supply chain accounting can simultaneously exhibit enabling and coercive elements and that they can have both intended and unintended effects. The study shows that the enabling trend, in the face of coercive conditions, results in exploitation of the enabling system. I demonstrate how the manufacturer’s use of enabling control allowed repair, but I also draw attention to the limitation presented by the flexibility element.

## CHAPTER 5

### Enabling Uses of Open Book Accounting In Supply Chain

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#### 5.1. Introduction

Since the call for research into management accounting within an inter-firm setting, studies in this area are proliferating [see review of Caglio and Ditillo (2008) and Meira et al. (2009)]. Activities of firms, as well as their accounting information, frequently transcend legal boundaries, creating “extended enterprise”. An understanding of the function of accounting in this context might help firms to enhance collaboration performance. Work exploring this concern has shown the emergence of various types of inter-firm accounting, such as inter-organizational cost management (Carr and Ng, 1995; Cooper & Slagmulder, 2004), value chain analysis (Dekker, 2003), OBA (Mouritsen, et al., 2001; Seal, et al., 1999) and target costing (Carr & Ng, 1995; Mouritsen et al., 2001).

OBA has made a notable contribution to the inter-firm relationship (Kajuter & Kulmala, 2005; Agndal and Nilsson, 2010; Seal et al., 1999; Dekker, 2004; Mouritsen et al., 2001; Free, 2007; Carr & Ng, 1995). Studies exploring OBA have emphasised that its use may lead to enhanced collaboration (Seal et al., 1999; Free, 2007; Mouritsen et al., 2001). A survey completed almost a decade ago indicated that “where data is used in a constructive manner rather than just to pressurise supplier margins, effective

cooperation in the generation of efficiencies was possible” (Munday, 1992, p. 250). Recent field study conducted by Free (2007) offers an interesting finding on how OBA actually works in practice. He establishes that OBA used in an enabling way enhanced relationship collaboration when the information and resources gained through this accounting tool was used to engage both buyer and supplier in an “opportunity for learning, adaptation and growth” rather than aiming at “greater competition and profitability” (p. 927). In a similar vein, Mouritsen et al. (2001) demonstrates that the enabling use of OBA not only provided transparency in the outsourced business processes, but also allowed an understanding of the supplier’s operation that resulted in cost savings (Mouritsen et al., 2001).

While these studies have drawn attention to the beneficial use of OBA in the inter-firm relationship, the question remains as to how OBA could be achieved. It is hypothesised that within a firm an interactive and dynamic control system, such as an “integrative liaison device” (Abernethy and Lillis, 1995), encourages “increased interaction between top management and subordinates” (Abernethy and Brownell, 1999, p. 192), and this enhance information sharing. Extending a similar control mechanism to the inter-firm context might enhance information-sharing between firms, and thus facilitate the practice of OBA. While Free (2007) briefly mentions the use of “close liaison” and its relevance to supply chain management, although not directly to the practice of OBA, it is potentially useful to explore such a control device in detail, particularly in relation to the role of liaison in “opening the arsenal of

information” (Mouritsen et al., 2001) between buyer and supplier. Moreover, while the “integrative liaison device” has been used to achieve flexible organization (Abernethy and Lillis, 1995), it is interesting to examine how such a mechanism contributes to the enabling nature of OBA.

Building on Free’s characterisation of supply chain accounting for enabling and coercive uses (2007), this study examines the ways in which the role of liaison assists in fostering the enabling use of OBA. As noted later in this chapter, the role of liaison between a manufacturer and its strategic customers, in relation to the practice of OBA, is highlighted. The four enabling control features: *internal transparency*, *global transparency*, *flexibility and repairs* (Ahrens and Chapman, 2004; Free, 2007) lend a useful basis to analyse the practice of OBA and to observe how the use of liaison contributes to enabling OBA. It is argued that the role of liaison, through OBA, fosters flexible and efficient practice in the management of the supply chain. In order to investigate more closely the manufacturer-customer relationship and to explore the role of liaison and the practice of OBA, ethnographic materials were collected through interviews, observations and documents. The study contributes to accounting literature in two areas. First, by examining the four enabling features, the study adds to enabling control literature in developing understanding of the role of liaison in contributing to the enabling uses of OBA. Second, it seeks to build on recent research relating to supply chain accounting by taking a specific view of OBA

– through ethnographic research, the issue that has so far been addressed through survey research.

The chapter is organized into five sections. The next section presents the key concepts used in this study: supply chain accounting in general and OBA in particular, as well as the enabling approaches to accounting literature. Section 5.3 presents the background of study. Sections 5.4, 5.5 and 5.6 present the findings of the study. Section 5.7 discusses these findings and the subsequent section concludes the study.

## **5.2. Theoretical Framework and Literature Review**

### **5.2.1. The Practice of Open Book Accounting**

The practice of OBA has long been recognised in inter-firm relationships (Munday, 1992). The concept of OBA is predominantly associated with cost saving initiatives (Carr and Ng, 1995; Seal et al., 1999; Mouritsen et al., 2001), in which “an ideal role for management accounting would seem to be in an open book agreement whereby both parties can inspect each partner's revenues and costs” (Seal et al., 1999, p. 321). Given that cost management has been a strategic concern in inter-firm collaboration, firms in partnership tends to focus on sharing financially-based information, as suggested by Lamming (1993, p. 214):

Cost transparency means the sharing of costing information between customer and supplier including data which would traditionally be kept secret by each party, for use in negotiations.

The purpose of this is to make it possible for customer and supplier to work together to reduce costs.

Discussion about cost reduction strategies thus requires a degree of cost transparency between partners, a focus on which is made by Lamming (1993), who also points to other types of data: “data which would traditionally be kept secret by each party, for use in negotiations”, an indication of a broader scope of transparency. For example, Mouritsen et al. (2001, p. 233) found that, besides cost, information pertaining to production processes such as “adjustment times for assembling machines, the size of the intermediate product inventory and rate of turnover” was shared between the buyer and its outsourcing supplier. Such information provided an overview of suppliers’ production and distribution processes, which was particularly important as the “information is used to influence the flow of products and services between firms” (ibid, p. 225). Indeed, accounting literature has highlighted the importance of non-financial measurement as part of accounting craft (Vaivio, 1999a; Vaivio, 1999b; Kaplan and Norton, 1996). The importance of non-financial measurement to portray organisational reality has been emphasized by Vaivio (2006, p. 738):

Non-financial measurement, it appears, can provide more specificity to the accounting craft. It exposes organizational phenomena which have eluded quantification and calculability in traditional financial terms. It has the capacity to provide vital knowledge of specific to organizational affairs beyond financial – which earlier may have been considered irrelevant or lying beyond the reach of accounting’s numbers. And new, more focused and penetrating forms of government can be based on this formal knowledge.

In the inter-organisational context, the visibility over non-financial information, such as the inventory balances at the customers, would help suppliers to detect shortages and overstock, and would thus actively react towards improvement (Mouritsen et al.,

2001). OBA has opened up an “arsenal of information”, both financial and non-financial, that allowed cost saving but also encouraged new core competency:

To be able to deliver quickly, the production department [of the supplier] had to have a considerable stock of intermediate products as a buffer in case orders differed from the forecasts. This stock was costly because of re-adaptation or writing off unsalable prints and components stock... Open book accounting allowed management to show stocked intermediate products and rate of turnover and it was possible to explain the size of stock as a result of salespeople's behaviour. In this way, they were pushed towards products that needed less physical adaptation [...] software engineers [of the supplier] saw a new opportunity to participate in the firm's strategic agenda and increase product flexibility with lower complexity in the production system.

(Mouritsen et al., 2001, p. 235-236)

The sharing of non-financial information therefore acted as a cue for strategic financial performance. As stated by Vaivio (1999b, p. 430), “going beyond financial information, non-financial measures could connect managers regularly to operational issues which take on strategic significance.” A more general definition of OBA – to encompass both financial and non-financial information – might help to deepen understanding of how accounting is implicated in inter-firm relationships.

To date, studies on the role of OBA, while focusing on financial information, have advanced understanding of managing the dynamics of supply chain operations (Chua & Mahama, 2007; Carr & Ng, 1995; Cooper & Slagmulder, 2004; Free, 2007; Caker, 2008; Seal et al., 2004; Mouritsen et al., 2001). In particular, most studies exploring OBA have so far focused on the factors determining the use of OBA drawn from TCE and contingency-based literature (e.g. Kajuter & Kulmala, 2005; Dekker, 2004; Munday, 1992; Cooper & Slagmulder, 2004). For instance, Kajuter & Kulmala (2005) provide useful contextual determinants that contributed to explaining how to



make OBA work and how to avoid potential pitfalls, including trust and power, important conditions for the establishment and implementation of OBA (Dekker, 2004). Indeed, OBA itself “may play a constitutional role in the establishment and management of trusting relationship” (Seal et al., 1999, p. 320; see also Free, 2007). While these studies drew attention to the factors that might influence the practice of OBA, it is important to highlight that these factors do not work in a one-way relationship, as claimed by contingency researchers, but rather are constitutive.

Drawing on ANT, Mouritsen et al. (2001) illustrate an active function of OBA. Similar to other inter-organizational controls, OBA is viewed as a centre of calculation where it “can be associated with multiple aspects of organizational practices” (p. 242). It opened up the “arsenal of information” that was unknown before making outsourcing arrangements. They argue that OBA increases transparency in cost calculations between different parties in inter-organizational supply chains, offering potential positive consequences. They found that it plays an enabling role which provided transparency in exploring cost saving possibilities, while at the same time developing new capabilities such as technology, strategy and organization. ANT framing of OBA provides an important insight into the complexity of the OBA translation process and could lead to an enabling control mechanism in the inter-firm process; however, it does not provide any insights into the process of enabling OBA itself.

Similarly, Free (2007) offers useful insights into how OBA could be designed in enabling ways and thus reap potential benefits for the inter-firm relationship. He studied two manufacturer-retailer dyads in category management programs and found that OBA was employed in different ways within each context. Drawing on the coercive and enabling approach to control (Ahrens and Chapman, 2004), one of Free's case studies illustrated the coercive approach to OBA, when such practice was accomplished through "defined obligations, top-down buyer control and emphasis on compliance rather than innovation" (p. 928). In the company which was the subject of the other case study, OBA is said to be used in an enabling way to "value user experience, continually redefining tasks through interaction and emphasizing information and advice flows in communication" (Free, 2007, p. 928); it provided local transparency that could be used to achieve high global transparency, repair capability and flexibility (details of enabling supply chain accounting features are provided in Table 3, Free 2007, p. 924 -925). In addition, the study demonstrates that the coercive approach to OBA implementation resulted in an expansive form of OBA but created distrust and tension in the inter-firm relationship, while the enabling approach led to a restrictive form of OBA that promoted an atmosphere of trust and sharing.

Given that enabling and coercive classifications of supply chain accounting in general, and of OBA in particular, have been provided, "the factors [that] militate towards enabling and coercive systems" (Free, 2007, p. 929) nevertheless remain

unclear. Adler and Borys (1996, p.81-83) provided a theoretical discussion of the forces shaping the choice between the types of formalization (among others), drawing attention to the role of performance measures. The presence of competitive pressures might foster enabling formalization as a firm strives to improve performance due to “external stimulus for improvement” such as competitors, clients or customers. On the other hand, the absence of “reality checks” (e.g. lack of performance measures) could result in “an inwardly focused” organization, thus creating a coercive formalization. Using these concepts to examine the ways in which a firm can establish enabling formalization through OBA, a further contribution might be made to inter-firm accounting literature. Moreover, Free (2007) emphasizes that the practice of OBA does not necessarily contribute to an enabling (and therefore trusting) inter-firm relationship since “coercive use of accounting may [also] entail information sharing and a degree of joint involvement in decision making” (ibid, p. 928). It may be interesting to explore what it takes to establish an enabling OBA.

I have so far discussed the different ways in which OBA was used and the context in which it can suggest different meanings and enabling OBA is seen as a potential subject for further research. Several factors associated with the establishment and implementation of OBA are also discussed, indicating the relevance for more detailed analysis of the factors and process within a specific context, particularly in relation to its dynamic and constitutive role. The next section discusses the enabling concepts that can be applied.

### 5.2.2. Enabling Uses of Controls and the Role of Liaison

Adler and Borys (1996) argued that specific attributes of work formalization have contrasting effects on employee commitment. Drawing on the design of equipment technology, they differentiate two types of formalization: coercive and enabling. In their view, coercive formalization expects employees to comply strictly with organizational rules and procedures and with attempts to coerce their effort. In contrast, enabling formalization enables employees to deal effectively with inevitable contingencies and to use the organisational rules and procedures to support their task. The enabling formalization is based on the four integrated design principles: *repair*, *internal transparency*, *global transparency* and *flexibility*. *Repair* relates to the extent to which employees are able to respond to emerging contingencies and to seek improvements. *Local transparency* refers to the visibility of the work processes to the employees and to the extent to which they understood the rationale for the rules and procedures. *Global transparency* refers to the visibility of the overall working context in which employees perform their task and the extent to which they understand how a particular operational task relates to the overall system. *Flexibility* refers to the choices of modes of control system that enable the employees to modify certain tasks accordingly.

In management accounting research, these four design features assist in articulating an understanding of the nature of accounting and control formalization (Ahrens and Chapman 2004; Free 2007; Wouters and Wilderom 2008; Chapman and Kihn, 2009;

Jorgensson and Messner, 2009). For instance, Ahrens and Chapman (2004) describe how enabling control design made it possible for a vertically-integrated restaurant chain to pursue its objectives of efficiency and flexibility by mobilizing local knowledge and experiences. Free (2007) asserts that, between organisations, enabling and coercive descriptors serve a useful basis for analyses to classify and conceptualize accounting in supply chain accounting. Enabling uses help inter-organizational members to improve the buyer-seller relationship, while coercive use led to distrust and a perception of an unfair supply chain. A closer examination of enabling formalization of controls within these two studies is presented in the following paragraph.

Ahrens and Chapman (2004) studied the management control system in operational management within the restaurant chain. They demonstrate the role of managers at each restaurant division in carrying out the head office's agenda. The managers did not merely "follow the rules to the letter", but instead used them in enabling ways. Flexibility and repair were embedded in the management control system at the restaurant, where the managers analysed the control processes to deal flexibly with emerging problems and to enhance their work. This in turn required local transparency on the part of the restaurant, through explication of various tools and application of a number of reports, in order to grasp information about, for instance, the needs for kitchen equipment, menu design, preparation of food and dishes, staff requirements and customer demand. This information was then exchanged with other

units to promote a wider connection between them and the head office's agenda, thus enhancing global transparency. For example, through a series of control workshops, the restaurant manager had the opportunity to clarify how their specific processes related to the entire business.

Free (2007) demonstrates the different ways in which accounting was mobilized in the supply chain under a category management program. He distinguishes the different uses of supply chain accounting between two sets of dyads in different organizational environments, and suggested that the supply chain relationship may become enabling when supply-chain accounting was designed to aid decision-making rather than to engender competition. Using an example of supply chain accounting, Free asserts that OBA enhanced global transparency as the organisation "[was] made aware of key targets and figures of certain organizational units with wider organizational significance (ibid, p. 923). As with key product sales and margin, accounting information "provided managers with the capability to explore marketing and merchandising options in light of market changes and contingences (i.e. repair capability) (ibid, p.926). He concludes that supply chain accounting, such as OBA, are embedded with enabling features that facilitates improvements in performance and promotes strong collaborative intents through joint problem-solving and flexible adaptation, thus enhancing supply chain cooperation (ibid).

The above studies have mapped out the enabling attributes of accounting and control formalization and their effects on the employees' commitment towards efficiency and flexibility. In particular, the studies have suggested the importance of accounting transparency in order to allow repair and thus achieve flexibility and efficiency. The exchange of accounting information, either between divisions (Ahrens and Chapman, 2004) or between organisations (Free, 2007), enables repair capability because it allows the "understanding of the nature of the system being repaired" (Chapman and Kihn, 2009, p. 155). Communication and direct interaction around accounting data foster employees' involvement and thus enhance their commitment.

The notion of transparency in an inter-firm context, specifically through OBA, deserves more attention. Christopher and Juttner (2000) argue that, in a context where competitive pressures are high and a customer-focused strategy is important, supply chain management should respond flexibly to customers' requirements through supply chain transparency and integration. Further, Miller (1988, p. 286) asserts that to achieve inter-functional integration, for example, through the use of an integrative coordinating mechanism such as a task force or committee, would allow "regular, personal and intensive contact among experts and decision-makers of different departments"; this would create a flexible organisation (Abernethy and Lillis, 1995). Translating this concept into inter-firm collaboration, the use of liaison in the management of supply chain might help to foster an enabling orientation aimed at flexibility and efficiency. Moreover, as demonstrated very briefly by Free (2007), a

regular exchange of accounting information may prompt frequent discussions and constant dialogue between partners. It is therefore interesting to see how OBA and the role of liaison could become intertwined in the management of the supply chain. The role played by liaison, emphasizing the human interface, has yet to be explored in detail such as through field research. While Free did address both these concepts (the uses of OBA and the role of close liaison), they have been only tangentially addressed since the focus has been on supply chain accounting in general.

My study therefore explores the role of liaison in the practice of OBA through a field study research. It focuses on the interactions between a supplier and its network of strategic customers. The study demonstrates the enabling orientation of OBA in which the liaison influences such formalization. Linking the structure of control system to OBA in the context of supply chain management might help firms in designing inter-firm accounting in order to improve supply chain performance.



### **5.3. Historical background of ABC's supply chain network: Moving from arm's length to full blown collaboration**

As explained in Chapter 4, all ABC's products were initially distributed to retailers through dealers. In view of the rapid changes which took place in the retailing industry during 1995, ABC anticipated the need for more efficient distribution. The presence of modern local and multinational retailers made the management of dealers more complex. Indeed, there were a few requests from multinational retailers for direct delivery to their stores to avoid middleman charges and thus reduce purchase costs. Although the existing dealers seemed incapable of coping with the increasing requirements of customers, they could not be ignored as business partners partly because, as the supply chain controller clarified: "they have been helping us with the trade".

Dealers thus remained as one of ABC's distribution channels, while another distribution channel opened to retailers. The director explained:

The retail landscape has changed. Because it has changed, as a company, we have to deal with retailers yet we also have our loyal dealers that have been with us for so many years. So what we do, we adopt dual track strategy. We deal with retailers directly worldwide, but then we continue with dealers to develop traditional trade because they are not covered, or not covered very well, with more products, more SKUs, so there is more value in pursuing the dual track strategy.

Director of Supply Chain,  
Supply Chain Division, ABC

The changes in the retailing industry therefore had significant implications for the distribution channel at ABC. Because the dealers did not have sufficient capability to

manage the growing needs of international retailers, ABC considered the potential of LTPs to explore new markets within the country, particularly those in rural areas. In addition, dealers in urban areas<sup>15</sup> were encouraged to become more competitive to accommodate NKAs. The director's concern about the potential of LTPs was shared by one of the warehouse managers:

There is no denying that within the next eight to ten years, IKAs would grow from the current 25% to 50%. The growth of IKAs cannot be avoided, especially now that the government has removed the barriers for international companies for opening branches offsite. It's like in any developing countries; the traditional trade [LTPs] would slowly become minimal. But there is always a need for it [LTPs dealership]; for the rural area, it is hard to reach these areas.

Group Warehouse Manager,  
Supply Chain Division, ABC

In order to continue business with the dealers, ABC had to prepare them so that they would be ready to face business challenges, together with ABC, by the year 2000. The existing two hundred dealers were given the opportunity to convince ABC that “they were able” (in terms of monetary resources) and “willing” (the interest of the owner for continuing operation) (Managing Director, LTP A) to be their business partner. The aim was to modernise the traditional dealers, in line with the growth in the retailing industry, and thus to face the challenges ahead. They were given a five-year period to carry out improvements to their business, with the guidance of ABC. One dealer commented on the changes to the LTPs' distribution structure:

They [ABC] educate, how to do it, visit after visit, asking: ‘Are you prepared?’ [...] That process took five years. I think it's quite fair because it's a big change. They told us: ‘We

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<sup>15</sup> It is important to note that even within fifty miles of the capital city of Malaysia, there were still small villages which could only be reached with small trucks. Hence, there remained a need for dealers in the urban areas.

don't need so many from you, we need good ones, the willing and able.' So come the year 2000, they decided

Managing Director, LTP A

By 2000, the selection of dealers was complete. There were about fifty LTPs. In addition, international retailers also became part of ABC's direct distribution channel. The customers of LTPs were limited to traditional and modern local retailers, they are NKAs. While some of the LTPs' sales were taken over by ABC themselves, all was not lost for them; they remained potential business partners with newly-defined roles. ABC closely supervised the operation of LTPs in managing NKAs and helped them to explore new market potential.

Realizing the importance of LTPs and the growing business requirements of NKAs and IKAs, ABC revised its strategy in managing its supply chain. The changes in distribution channel in fact created two formal distribution processes. First, the inclusion of IKAs within ABC's distribution model resulted in an emphasis on delivery performance which was indicated by customer service level (CSL). Product distribution was carried out directly between ABC's distribution centre and IKAs' stores<sup>16</sup>. After about three years, at least one ABC customer service staff was assigned to each IKA to handle the supply chain issue, aiming at maintaining good

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<sup>16</sup> Some retailers gradually moved to centralised orders and centralised distribution centres or cross docking.

CSL. The staff played an important role as implants of ABC at IKAs, keeping a physical presence there. The role of implant is described in detail, later in this chapter, when discussion the relationship between ABC and IKAs. Second, when LTPs adopted the sub sales and distribution function of ABC, attention was drawn to the performance of LTPs in terms of their sales and distribution activities.

While employees' commitment across supply chain functions was critical to meet customers and consumers satisfaction, the challenge remained to achieve success in establishing a connection between internal staff and external parties. The complexity of the supply chain would certainly require a concentrated effort from all parties directly or indirectly linked to ABC. One important mechanism was to bring ABC's staff into close contact with people from outside (customers and service providers). It was evident after the re-structuring of the distribution system that there was at least one member of ABC's staff physically stationed at every operational area that directly affected external parties<sup>17</sup> such as at IKAs, LTPs and logistics service providers. As the director of supply chain comments:

It is very important that both parties know what's going on, on the ground. And therefore it is important that we are stationed where the action is.

Director of Supply Chain,  
Supply Chain Division ABC

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<sup>17</sup> Physical representation was also observed at third party transporters. However, instead of locating ABC staff at these transporters' operational sites, they requested each transporter to place their transportation coordination team at ABC's distribution centre. At the time of this study, there were two transporters stationed at ABC's distribution centre, where they shared an office with ABC's distribution and warehouse team.

Reinforcing the idea of collaboration, this same director viewed the importance of transparency as a means of coming to “understand” and thus to “help each other”:

If we understand each other, in terms of transparency on how we operate, then we know how to help each other or support each other, which I should say, basically in terms of the businesses going forward. So we are now moving more and more towards greater transparency in various tools and processes of the company so we can properly understand how a business is run.

Director of Supply Chain,  
Supply Chain Division ABC

The roles of the implants (at IKAs) and of the sales team (at LTPs) were noticeable when dealing with customers, although a different emphasis was placed on each. Implants were expected to understand IKAs and thus to work towards CSL target, while the sales teams were expected to work together with LTPs to maximize sales opportunities. Such an approach to managing supply chain activities opened up the opportunities for information sharing. Broadening the scope of accounting information to include both financial and non-financial features, which included inventory balances, product allocation and sales performance (in value and in volume) as well as technical operating information, might help supply chain members, both manufacturer and customers, to speed up the decision-making process. More specifically, OBA was one of the important mechanisms in managing supply chain such as in the area of product distribution, sales target achievement and customer service fulfilment.

The next section discusses the full-scale collaboration achieved between ABC and LTPs through the placement of ABC's sales teams at LTPs' operations, opening up an exchange of information between ABC and LTPs.

#### **5.4. Relationship between ABC and LTPs: the role of ABC's sales team at LTPs' operations and the practice of open book accounting**

The continuing business relationship between ABC and LTPs was based on their mutual requirements. ABC needed LTPs as distributors to make deliveries to small areas as well as to search for sales potential in unexplored markets. On the other hand, LTPs, who started as small, privately-owned sole proprietorships, sought commercial expertise in order to expand their business. This situation was described as "win-win" by the director of supply chain, who viewed shared business growth and working together as being of great benefit to both parties in ensuring successful collaboration:

I think the only thing that makes collaboration successful is a win-win situation: achieving and growing business together. The LTPs are in this phase of business and so are we. Working together at that level, at the ground level, can expand the business, for both parties. So, I think that's the primary motivator, in terms of why we would want to go together. To make sure that it's not just a business for us but also to take care of the consumers as well because you can only hear the consumers if you are on the ground as well.

Director of Supply Chain,  
Supply Chain Division, ABC

The director believed that it was important to share information that could contribute to the understanding of details of routine operation. Information that related to their business limitation would assist in explaining lack of success in

achieving sales target and thus their ultimate failure of service to their consumers. Moreover, as one of the multinational companies, ABC possessed greater business expertise compared with that of LTPs, who had only small businesses, most of which were family-owned and in need of expertise on how to expand. ABC depended on LTPs as agents that could handle the selling of products to consumers.

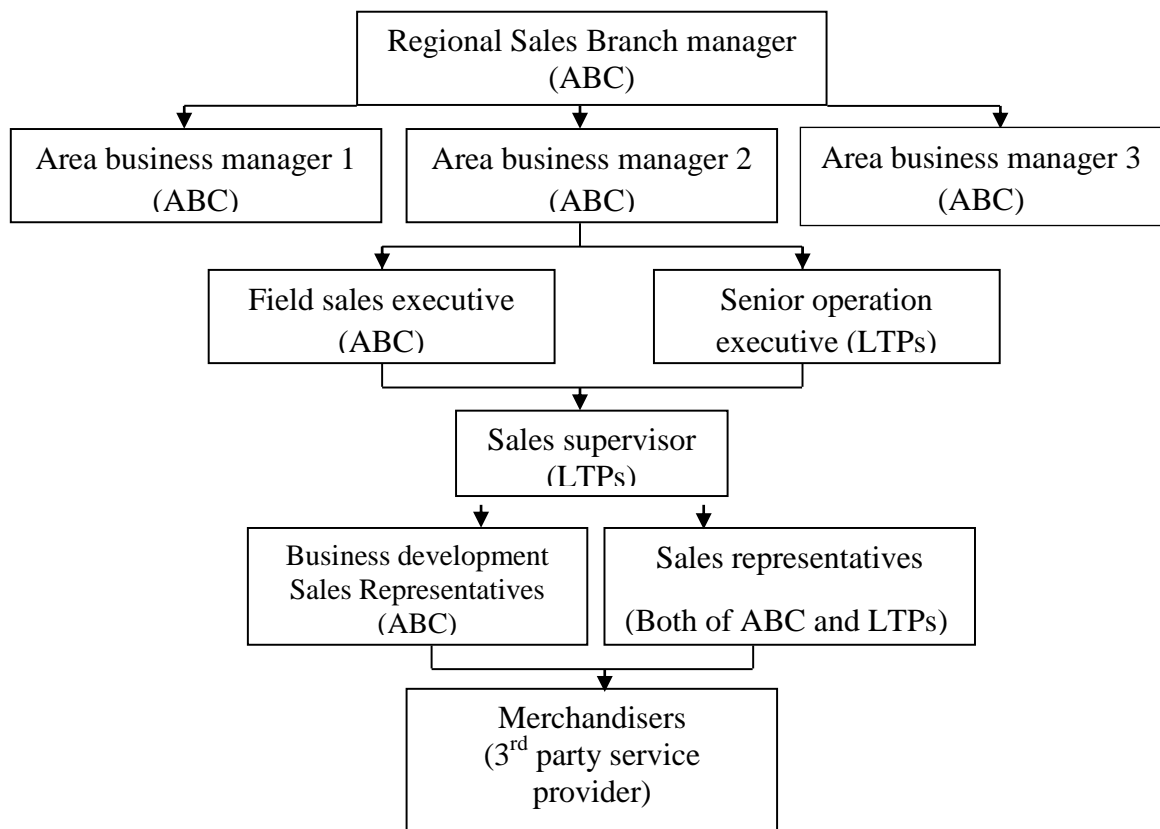
LTPs thus became part of ABC's sub-sales operation, working together to manage distribution activities to NKAs as well as to develop new sales potential. Figure 2 depicts the organization of area sales teams. Four regional sales branches were located throughout the country in order to carry out, in conjunction with LTPs, the marketing and sales activities initiated by head office. Each regional sales branch was headed by its own manager who was held responsible for ensuring the achievement of sales targets in his region. Each region was further grouped into several areas, each led by an area business manager who directly supervised several LTPs. The warehouse and distribution activities of each LTP were handled by its own management, while the ABC's sales management led the sales and market development activities. In other words, there were joint management teams at each LTP operation. Each LTP had to "ensure supplies" within the agreed sales territory.

At each LTP operation, ABC's sales team focused on sales-related activities while the LTP carried out both sales and distribution activities with the support of ABC. For

example, the ABC field sales executive worked closely with the LTP sales supervisor to guide and coordinate the sales representatives in the sales operation. A weekly briefing was conducted to explain the updates on commercial undertakings and also to discuss on-going issues with the LTP's customers, which included NKAs. On the other hand, the LTP management staff - for example, the senior operation executive - coordinated the warehouse and product distribution process and would normally communicate with the supply chain customer service at their respective sales branch in order to be updated on stock replenishment. There were also ABC sales representatives, known as business development sales representatives, who concentrated mainly on sales and market development as well as carrying out merchandising activities. At the retail outlets, third party merchandisers were required to handle daily shelf replenishment and stock updates and to ensure that the promotional activities were properly conducted at NKAs.



**Figure 2:** Organization chart of area sales teams (ABC and LTPs)



The placement of an ABC sales team at each LTP operation made a significant impact on the management of LTPs. Their presence became visible and was embedded in their everyday operation. The managing director of LTP A commented:

As far as business is concerned, we share everything, we are very open. As business partners we have to be very transparent. Nothing to hide. Because ABC being our principle, the more they know our problem better, the more they can help to solve it.

Managing Director, LTP A

The concept of “openness” (Kajuter and Kulmala, 2005) was welcomed. Their reciprocal relationship prompted the sharing of information: close attention to such

details as the local operational sales field, for instance, assisted LTPs with their operation. As a leading firm, ABC's direct supervision was used not merely to control deviant behaviour but also to understand the shop floor operation. The director of supply chain explained:

All these dealers have one area sales office with a sales area manager and some of the staff. This area manager will work with the dealers in terms of forward strategies, the sales target of the month, issues and resolutions. So this is how we work together. By stationing our people at the LTPs, there are people that understand what goes on, on the ground.

Director of Supply Chain,  
Supply Chain Division, ABC

By having "people that understand on the ground", the sales team acted as a liaison that was directly involved with the LTPs' sales operation<sup>18</sup>. Transparency thus became one of the main business principles for establishing collaboration, and the sharing of information offered advantages to both parties. Information pertaining to a partner's operation, such as an "LTP's customers, the collection days, collection cycles, accounts that are late or not or not paid, or with sales statistics pertains to what products sales better, different kinds of trade levels" (Director of Supply Chain), was made visible to the ABC sales team, thus enhancing the internal transparency of LTPs to ABC. On the other hand, product-related information, including the availability of new products, new promotions, product descriptions and product shelf life and pricing, was updated on a

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<sup>18</sup> While ABC placed its sales teams to coordinate sales activities, they also helped LTPs in terms of warehousing as well as other facilities development, such as an inventory database, handheld sales tracking etc.

regular basis, while promotional plans - for example, from head office - were discussed and customized according to the LTPs' operation.

One of the sales branch managers viewed the daily presence of his team at the LTP as enabling formal and informal interactions. While informal interaction was prompted by spontaneous and personal contact between the ABC sales team and LTP staff (who shared the same office building), their formal interactions followed certain guidelines provided by ABC's head office:

The principle [ABC] sort of share with them and try to find out what went wrong; things like that, and that's where we discuss and debate a lot. So, that's how the collaboration started. So that's the system for them, the system for the collaboration. If you drop by at any time, that's the social one and that goes by without saying [informal visit without formal arrangement]. Sometimes we just drop by to say hello. But within that one, there's a proper one where we have a documentation system that is followed by everybody in the company [...] Very detailed, line by line.

Sales Manager, Branch A, ABC

The formal documentation sought to capture detailed operational information in order to evaluate the sales performance of both teams as well as to identify actions for improvement. Formal reviews, such as those for strategic business and operational performance, were seen as a "process that seeks to engage both parties in a systematic discussion" (Free, 2007, p. 909). These documents were jointly prepared by each LTP and its respective ABC sales team. The strategic business review was prepared annually and presented to ABC's senior sales management, while the operational

performance review was conducted on a monthly basis and discussed among the lower level managers and subordinates in the firms.

Operational performance review was discussed at each LTP at two sets of meetings each month: operation reviews and throughput meetings. The monthly operation meetings were held between ABC's sales management (including the sales branch manager, the area business manager and sales field executives) and the LTP's management (the senior operation executive, the sales supervisor and, on an occasional basis, the managing director). The meetings reviewed the LTP's overall monthly performance in terms of category and channel performance, top performing outlets and the most frequent product that came up as market return; the LTP's upcoming plan was also discussed. The throughput meeting was another formal meeting held each month between ABC's sales management (the area business manager, sales field executives and sales representatives) and the LTP's sales staff (the sales supervisor and sales representatives). Details of the operational plan for the following month - such as the developing product category plan for the LTP's customers, their retail prices and promotional programs - were shared and discussed. In addition, both teams were made aware of the performance in the previous month as well as the key targets to be achieved in the following month:

“We hold a meeting at the end of the month to discuss what activities we will be doing in the following month. So they [the LTP B's sales people] are all clear. They are all reminded again by the ABC sales field executive [on a weekly basis].”

Managing Director, LTP B

Discussion around information concerning the operational supply chain and of accounting reports facilitated the two parties in building “an information-based infrastructure that engaged organisational members in communication and joint exploration of possibilities” (Free, 2007, p. 926). One of the sales branch managers reported:

Basically, we discuss mainly the business, right from our supply - whether we have enough supply or we don't have enough supply, the performance of respective categories in their area as well as the supply from our company. We will tell them, they will tell us sometimes. There are two ways of communicating. For example, this is the supply for this month so this is what they are short of [less quantity allocated for LTPs]. Sometimes they also shoot [condemn] us. We tell them it's ok. Let us be open about it, their correction of us, and their comment about us, is seen as good feedback. That's the kind of thing. That's what makes the interaction and collaboration very, very strong.

Sales Manager, Branch A, ABC

The communication process was structured with “openness” between LTPs and ABC. Complaints from LTPs about such operational issues as the shortage of stock were openly discussed and were considered to be valuable feedback from the perspective of ABC. On-going issues were discussed and tabled, and the relevant member of staff in charge was made responsible for taking appropriate action within certain deadlines.

An important agenda item during the monthly operation review meeting was the achievement of KPIs, depicted in Table 2. The KPIs' scorecard was held responsible for both the LTP and its respective ABC sales team. Key areas relating to the LTP's

operation, including input sales<sup>19</sup>, throughput sales, stock cover credit days and market return performance were highlighted, and non-performing KPIs were discussed.

Joint sales field management therefore became crucial as both parties sought to achieve shared KPIs. When attending one of the monthly operation review meetings, I observed that KPI performance was actively discussed. The sales branch manager highlighted the non-performing key targets, such as the high level of market return, and drew attention to the action to be taken at LTPs to improve the situation. For example, he suggested a mechanism to avoid high market return, which set a proper triggering system so that the products that had nearly reached their expiry date could be categorized as those to be sold aggressively. The information relating to the internal operation of LTPs thus helped ABC to understand both their business limitations and their potential, and ultimately to integrate them into their business strategy. As ABC became more transparent, greater alliances were evident:

They gave us the kind of support that sometimes we cannot do ourselves. They are more in terms of promotion, key merchandising activities, they have got merchandisers, and they have got their manager to do the daily target monitoring. I think these only they can do because we don't have this kind of manpower. Our people are mainly operational on the logistic side at the same time as sales.

Managing Director, LTP A

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<sup>19</sup> Input sales represent the amount of ABC's sales to LTPs, and throughput sales the amount of LTPs' sales to their customers.

Furthermore, the joint preparation of the monthly meeting was itself of value in that it encouraged each ABC sales team and its respective LTP to work together. The process developed internal transparency since the status of the LTPs' performance, the rationale for achieving the key targets based on the scorecards, and the reason for non-performance, all had to be reflected upon and analysed by both teams together, thus making them aware of on-going issues. The two parties, jointly with the head office sales team, held intensive discussions about previous performance and identified key issues for more effective management and control. This discussion enabled LTPs to understand the logic of dealership management systems and its contribution to ABC. Local operational information at LTPs was provided to other internal staff within the organization, thus building a connection between internal and external parties. In other words, the visibility of the LTPs operation enhanced *internal transparency* that in turn allowed integration between ABC and LTPs, creating *global transparency*.

The effort to enhance *global transparency* could be observed through the strategic business review. A standard business review document covering criteria and guidelines was provided by head office sales management, but this was set up in such a way that benefitted both parties. Among the key areas included in the business review were order management, throughput management, warehouse and operations, working capital and finance management, and people. Comparisons were made between the targets and the actual achievement for each of these areas and an overall

score was calculated. This score was then matched to the various levels in the performance matrix provided by ABC's head office. For example, the LTPs that achieved below 50% points (i.e. failed to meet the majority of the KPIs) were requested to undergo a major overhaul to restore the business to the minimum expectation. Those with an average performance on KPIs, between 51% and 69%, were advised to make a continuous effort to improve.

The business review provided the opportunity for both LTPs and ABC to arrive at an understanding of how a particular LTP's sales operation related to ABC's wider operation. The regional sales branch team, together with a team from head office, attended the LTP's business review presentation held once every six months. Key target achievement, sales strategy and market development business review were among the areas discussed if potential improvements were necessary. Moreover, the LTPs were provided with feedback on their performance based on the score matrix suggesting future corrective actions.

Embedding transparency in managing LTPs, allowed repair capability. In circumstances when a monthly sales target was not achieved, both teams discussed a more aggressive sales strategy in the following month to keep the annual sales target on track. Deviations signalled inadequate procedures that required revision and planning for improvements (Adler and Borys, 1996). In particular, unachievable sales targets were a risk that prompted opportunities for more collaboration.



Last year we did very well but we have a lot of injured players because we hit numbers and we hit acceptable variance [...] but our people didn't hit the target. This year, I think it is a reasonable expectation that the company [ABC] is giving. Therefore, there is potential for our people to hit the target; at the same time our people can get the incentives so that we have a much happier staff, so easier for LTPs to manage; it's easier for me to manage.

Sales Branch Manager, ABC

We have so far seen that the placement of ABC's sales teams at LTPs provided an understanding of the LTPs' internal transparency. The interaction between the LTPs and ABC sales teams, particularly in relation to the issue of sales management, provided a basis for information-sharing where formal documentation became the substance for both parties to work together, leading to strong collaboration. While the management of LTPs was conducted through the role of the sales team, with an emphasis on sales initiatives and achievement (as well as initiating OBA), the management of IKAs was carried out by the customer service staff, namely, the implants, thus highlighting the customer service fulfilment initiatives; these are discussed in the next section.

### **5.5. Relationship between ABC and IKAs: the role of implants and the practice of open book accounting**

While LTPs were positioned mainly to serve NKAs and thus remained stable, ABC's collaboration with IKAs presented more of a challenge. This was due to certain standards and structures being adopted by most IKAs following guidance from their overseas headquarters. They therefore had higher expectations and strict delivery performance. The service level measure was evident and was used as their main

target to be internalized in routine operations. The placement of ABC's dedicated supply chain customer service staff, known as implants, to manage supply chain issues between ABC and the respective IKAs was perceived by both parties to ensure a good level of service. At least one implant was placed at a customer's site to ensure efficient delivery performance, as measured through CSL. At the time of this study, there was one implant dedicated to each retailer<sup>20</sup>.

The implant was responsible for highlighting to ABC's management, or to a relevant functional department, supply chain operational issues such as late delivery, sales order proposals, replenishment and quality issues, and matters directly affecting customers, and for ensuring that these issues were solved as quickly as possible. They therefore had to serve as a contact point between customers and different functional areas at ABC, including warehouses, distribution, demand and supply planning, sales and business units. Retailer A observed:

Actually, a good service is very important to our business, certainly important to ABC. So the high level statement of the need is - she [the implant] acts as the bridge between two companies. When they are doing well, our service level will be good. So, the high measure is whether she is doing a great job or not. Clearly there are numerous details on how she does it, but what she does is to help both companies. This is the service level. So that's really what the implant is for and how she works.

Procurement Manager, Retailer A

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<sup>20</sup> There were four key account managements each led by one key account manager. The largest retailer (Retailer A) was known for its dominant position, followed by Retailers B, C and D. Even though Retailer D handled quite a small volume, of orders there was still an implant assigned to them. Any issue arising was handled by the order management staff themselves.

In a similar way to the management of LTPs, the physical placement of implants at the IKAs' operation was seen as a way of enhancing customer visibility; and thus of doing more in terms of forward actions in ensuring supplies:

We have account managers for the customers. They provide the commercial view. But having a person [the implant] over there is to provide the supply chain view. [...] So they know what we have, our concerns and our issues. We also have visibility of their activities. Because the more visibility we could have, the more we could plan. Having a person on site will bring benefit in terms of it being easier to communicate and faster to communicate. Providing a human interface and more and more ABC [in other countries] is doing this.

Group Customer Service Manager,  
Supply Chain Division, ABC

The management of IKAs focussed on repairing damage in the relationships and fostering more collaborative effort to generate better performance. A manager from Retailer B appreciated the initiative<sup>21</sup> extended to them which would be of benefit to both parties in terms of prompt action:

When she [the implant] is here, it's more direct to the buyer [commercial unit of Retailer B] and me [supply chain of Retailer B], in terms of communication. It's a fast action. When she is here, actually she is not only helping the buyer, but also doing her job.

Supply Chain Collaboration Manager, Retailer B

Both parties therefore agreed that the role of implant could bring both parties towards closer supply chain collaboration, and that this could be realized through increased transparency. A formal customer review meeting was held once a month between ABC and each IKA, normally attended by the customer service manager, the implant

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<sup>21</sup> Retailer A initially suggested the placement of implants to ABC. After some time, ABC created the same position for other IKAs.

and the account manager, as well as the procurement manager of the respective IKAs. The aims of the meeting were to discuss ABC's delivery performance and to highlight an action plan for delivery failure, as well as to discuss other supply chain operational concerns, including order management and warehouse issues (both for ABC and the customers) and transportation.

Through the implant, significant efforts were made to maintain efficient customer service and to create visibility in the inter-firm arena. It was claimed that the placement of implants resulted in a structured process that enhanced the understanding of the customer operation. This was acknowledged by a customer service manager who was directly responsible for supervising the implants:

There's a way that we can work with them. Last time there's no structured process flow for how we would advise customers when there will be a price change [...]. Now, we work very closely with them. We want to understand how their internal process should be, and what we can do to help them.

Customer Service,  
Supply Chain Division, ABC

The implant was expected to make the utmost effort in fulfilling customer requirements, achieving this through the enhanced transparency that existed, since they could understand IKAs more clearly. For example, my interview with the customer service manager highlighted that one of the common reasons for delivery failure was data misalignment. Through the implant, who worked from the IKA's office, it could be confirmed if a customer had received the right product and pricing information, and this ensured data alignment between them. The implant was able to

highlight customer inefficiency that could be avoided in order to enable smoother delivery performance. Although new updates on product information and pricing were provided regularly by the data management team directly to each IKA, the role of the implant was to ensure that information was quickly updated on the customer's system:

[In terms of] master data alignment, this is where we have improved a lot over the pricing issue, depleted or discontinued, and a barcode issue. It is all tackled before the orders come in. Last time, even though we'd cleaned up for them, we gave them [the information], but they didn't update. So, it's a loss of sales. So now we have a person over there and it's very quick and fast and the changes are also prompt. That's why we have a very, very high CSL.

Customer Service Manager,  
Supply Chain Division, ABC

The fact that the implant was actually present on the customer's site allowed spontaneous and face-to-face interaction both within the supply chain and with the commercial team of the IKAs. Both parties exchanged opinions and advice relating to the promotional plan, ordering issues and product availability, thus exhibiting two-way communication. For example, an implant would seek clarification if the quantity ordered by the respective IKA had taken account of the stock balances at the back store as well as on the shelves. This was important to ensure that the particular IKA had adequate stock during the promotional period. On the other hand, IKAs also sought the implant's opinion about the stock availability of ABC's products before making a decision for certain promotional activities:

Sometimes they asked me: 'Is it ok if we run a press advertisement?' For example, like the recent one, it's already at the end of the month. Even if we push for another promotion now, there might not be enough time to catch the delivery date. We have to get the stock in earlier before the promotion starts. If we have promotion but no products, they [IKAs] might work on the existing quantity available at their stores, but it might not be sufficient, especially over the weekend.

This spontaneous and face-to-face interaction also influenced the sales orders. As the implants were allowed to visit the IKAs' store outlets at any time, they gained hands-on information pertaining to the respective IKA's inventory level. While such inventory transparency could be made available, for example, via email, the implant's physical presence at the customer's site enabled a prompt order request to be made. I observed at one of Retailer B's outlets a discussion between the store manager and the implant regarding an order proposal immediately after visiting the stores - ABC's sales representative was also present. The store manager initially refused to order as he considered the current stock to be adequate, but agreement was finally reached when he was persuaded by the implant and the sales representative to accept a minimal quantity.

With the aim of ensuring supplies, the implant attempted to initiate fulfilment of the IKA's orders in many ways. For example, I was told of a stock transfer made from LTPs to a particular IKA (Retailer A) in order to avoid delivery failure – a specific product had been out of stock for a few weeks. When a product was frequently out of stock, Retailer A would normally ask for the product to be marked down and delisted from their database. Other IKAs acted in a similar way. If this was done, it would be difficult to re-list the item, necessitating further negotiation with their management. To avoid this, the implant repeatedly asked a few members of staff from the

respective business unit to run a report to check the product allocation quantity available for Retailer A and also for other customers. However, she was informed that the quantity left was insufficient to meet the order. She then requested the nearest sales branch to check availability of the product at their LTPs, and succeeded in obtaining stock to fulfil the retailer A's order. She commented that, while the process was tedious, it was a new experience:

I saw [from the report] ten cases, but I asked only for eight because the other two cases will expire within six months. So, I got to deal with our distribution centre; they are in charge of this. They will instruct the transporter when the delivery will be there [order delivery for that dealer] and then they will bring the stock back here. So I have to brief them. There's a form to fill, to pick up from dealer to here. So, there are a lot of processes actually to bring the stock<sup>22</sup> back to NDC [national distribution centre]. [...] Previously, I didn't know how to do stock transfer.

Implant for Retailer A  
Supply Chain Division, ABC

The efforts made by the implant to seek guidance from her immediate manager in initiating the stock transfer (a process that was new to her) illustrate an argument presented by Adler and Borys (1996) that procedures are not totally programmable, allowing a flexible response "to suit their specific work demands" (Adler and Borys, 1996, p. 74). In turn, such initiative required *internal transparency*. As stated earlier, the sharing of inventory information between ABC's sales teams and LTPs was available and updated regularly through ABC's database. Moreover, they could also obtain a particular LTP's inventory information from their own sales team attached to

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<sup>22</sup> While there was inefficiency as a result of stock transfer, e.g. transportation costs, such transfer was considered important as the products were already on promotion at that particular IKA, thus there was a sense of urgency to meet the order.

the LTP. The availability of this information offered an opportunity to initiate effort in order fulfilment and to achieve the CSL targets. In other words, visibility of the overall context enabled them to interact with the wider environment (Adler and Borys, 1996) (i.e. *global transparency*).

Moreover, frequent communication between the implant and her immediate manager played an important role in rectifying problems and allowing *repair*. The stock transfer initiative described above brought the workers and supervisors together to suggest in great detail the most effective work methods and task allocations (Adler and Borys, 1996). As the implant had not previously carried out stock transfer, she was able to receive advice from the manager, and despite the many processes that she had to undergo (negotiating with the branch manager and LTP, the warehouse operations and transportation), she felt satisfied about her ability to meet the order and, more importantly, learned how to deal with similar situations in the future.

In the event that the implant could not meet the orders requested by IKAs, or when full quantities ordered for promotional items could not be delivered, it was important that she provided explanations for this, and stated when the products would become available. The sharing of such information, as well as the reasons for delivery failure and the actions to be taken by ABC, was valuable in preventing negative consequences for the IKA:



This is the weekly report that I send to [Retailer A's] HQ here in KL, to their ordering replenishment manager, our account manager and my boss [customer service manager]. It will show the performance and why we deliver less quantity [than the requested order], so I will have to tell them. I have to mention in the report [for example] for groceries, this is what we dropped, meaning, we did not commit and we did not send for what reason, say, OOS [out of stock]. Actually, they just wanted to know when the next availability is. If the product is discontinued, we will ask the customers to delist the product, otherwise they will keep on ordering. So, at the moment, the customers have agreed to temporarily to block that item. Meaning, if their store has no stock, they will not order, so my performance will be better.

Implant for Retailer A  
Supply Chain Division, ABC

This explanation therefore served as an opportunity to improve the employees' transparency of the broader system and thus to promote continuous participation (Adler and Borys, 1996). It was clear that the customers were unhappy about this inefficiency but accepted the situation as temporary as long as ABC could provide details of the failure. Such an explanation was viewed as providing leading indicators, as Retailer A's procurement manager clarified:

And then you got lots of lead indicators that say, you know, service level from the supplier, which told us what we've ordered, how much we got. It's a fair assumption some of the stock we ordered that we didn't get would turn to out of stock [...] The lead measures tell us something is going to happen and if we do something quickly we might stop it from happening.

Procurement Manager, Retailer A

The customer service manager corroborated this by emphasizing the role of transparency to achieve agreement, thus enhancing understanding between them:

So that's where the agreement comes in, because we highlight to everybody over there [IKAs]. We are very transparent if, let's say, we don't have stock, because of the actions that we're taking now to resolve this issue, and everybody has been informed.

Customer Service Manager,  
Supply Chain Division. ABC

While IKAs appeared to be demanding in the early stages of collaboration, they tended to adapt to each other because of the inefficiencies of both parties. For

example, one warehouse manager indicated his interest to share warehouse expertise with IKAs since there was still a lack of proper stock handling at their stores.

Somewhere along the line we have to work on the aspect of basically working with their central DC [distribution centre] in that we provide a path and they become a replica of our warehouse, but own their own. I mean, we invoice them, they can do whatever they want, you know. And then they break the load. Of course we are more than willing to work with them to develop this network.

Group Warehouse Manager,  
Supply Chain Division, ABC

When visiting one of the IKAs' outlets to complete stock counting, I noted that the back store was full of boxes that were mixed up with many other brands and various products (food or non-food). I also observed some goods that had deteriorated and that were stored in the same room, which lacked air circulation, resulting in a rancid smell. The ABC sales representative I was following pointed out that the storekeepers sometimes stored their products in boxes belonging to brands other than those of ABC, causing difficulty in obtaining an accurate stock balance at the store.

The willingness to help IKAs to improve their back stores operation was evident when ABC conducted more frequent on shelf availability study and completed physical stock counts directly at IKAs' stores. Its findings were shared with the respective IKAs, as highlighted by Retailer B:

So when they call us, we checked, this item is reported not active in this store and that's why there is no stock [...]. So internally, we take suppliers' feedback and then check with the store to ensure the store follows our organizational process. Because, to manage the store, we also have internal issues due to different people and different personnel. If they don't manage the replenishment at the store side, it [the mismanaged issues] goes [affect] to suppliers, then suppliers come back to us. Because they [suppliers], of course, approach [go to] the store and ask: why do you have low stock? Why don't you re-order? And even if we have re-ordered and the products have arrived, then they ask: "Why isn't it displayed? Why is it just sitting at the store?" Let's find out together.

Supply Chain Collaboration, Retailer B

When attending a meeting at Retailer A, I observed similar enthusiasm towards ABC's proposal to conduct more frequent stock counts at its retail outlets. Indeed, before the end of the meeting, the procurements manager I had met earlier reminded the implant to inform him of the findings as soon as possible.

In addition, expertise was extended in terms not only of warehouse development, but also of the distribution process. For example, when Retailer A was about to propose a centralized distribution to all of its other suppliers, ABC was invited to share its distribution process, and demonstrated the process of unloading at Retailer's A cross-docking centre.

However, a few IKAs, such as Retailer D, continued to send individual store orders. In these cases ABC had to spend more time on processing orders and on the more difficult task of picking, since most of the individual store orders were loose, rather than based on pallet order. As a result, the warehouse staff had to pick products manually from one location to another, unlike pallet ordering, where the use of pallet trucks resulted in rapid completion of orders since product location was determined by the product code and could be easily reached. Nevertheless, the orders were manageable and ABC could easily negotiate an improvement in order processing:

They still listen to us, especially like retailer D, they listen to us and actually they follow what we asked them to do. At this point of time; yes. But people like retailer A, they are very structured, it's a structured company. They have processes, they have standing operating procedures, like ABC, they have ways of working. They've got system limitation, just like us. So what we do is we try to reconcile our limitations. We don't focus on the limitation but we focus on what we can do.

Customer Service Manager,  
Supply Chain Division, ABC

IKAs were aware that ABC's frequent stock out problem also existed at other large manufacturers. IKAs would therefore seek an explanation about the details on when and how much stock would be available, particularly ABC popular products, before moving on to promotional activities. Both parties had to admit each other's inefficiencies.

## **5.6. Discussion**

In recent years, there has been an increasing interest in the practice of open book accounting (OBA) in inter-firm accounting literature. This study shows how the manufacturer, ABC, managed its network of strategic customers - retailers (IKAs) and dealers (LTPs) - through the use of OBA. Specifically, the study aims to explore how OBA fosters an enabling orientation of supply chain management. Coercive and enabling framework (Free, 2007; Ahrens and Chapman, 2004) is used to explain OBA. A field study of one multinational manufacturer and its relationship with two major groups of customers was conducted.

### ***The role of liaison in the practice of OBA***

The study found that the role played by liaisons fosters the practice of OBA. The liaisons, as one form of control device (Abernethy and Lillis, 1995), encouraged the sharing of information between ABC and its customers. This is because the liaisons,

who attempted to achieve their KPIs (including customer service target or sales target), sought to obtain local knowledge of customers (Viavio, 2010) in order to fulfil their objectives. The physical presence of liaisons at customers helped to capture the local knowledge and thus enhanced transparency, resembling OBA discussed in inter-firm accounting literature (e.g. Free, 2007; Mouritsen et al., 2001) where there existed an opening up of accounting information regularly exchanged between partnering firms. Through OBA, accounting or non-accounting information, including details of customers' sales performance and their inventory balances, were used by the liaisons in particular, and by ABC in general, to achieve efficiency and flexibility in managing customer relationships. To this end, I argue that the role of liaison may promote the enabling nature of OBA.

This study summarizes the four main functions of the liaison, through the use of OBA, within the relationship between manufacturer and customers:

- *Facilitating learning and improvement of manufacturer and customers* – the liaison was placed at the customer's site of operation in order to share information pertaining to sales strategy, promotional activities and key merchandising activities, and to support customers in developing their business. In addition, the liaison was also aware of customers' operations. Information relating to key performance areas - specifically the customers' sales target achievement activities - was scrutinized according to category and channel performance; furthermore,

top performing outlets could be of benefit to the manufacturer in improving their sales strategy.

- *Facilitating master data alignment between manufacturer and customers* – the liaison was allowed to check their master data to ensure that details on, for example, pricing, discontinued or depleted products and barcode were updated as soon as possible.
- *Providing leading indicators to customers* – the liaison was made aware of the potential reasons of delivery failure. Information about upcoming product constraints or new product availability was therefore shared with customers so that they could avoid the worst situation (e.g. avoid using the out of stock products as promotional items) if the liaison informed them as soon as possible.
- *Enhancing spontaneous contacts between manufacturer and customers* – the physical presence of the liaisons enabled them to gather information about customers' inventory levels as and when necessary. The “free and easy” access to the customers gave them the privilege to seek necessary information. For example, when completing order proposals at the customers' sites, the liaison could spontaneously verify the request order quantity if the amount had taken account of the total stock balances both on the shelves as well as at the back store.

***Enabling uses of open book accounting fosters enabling orientation of the supply chain.***

Recent research by Free (2007) describes the use of close liaison in the inter-firm relationship; however, the question remains as to how liaisons have achieved the task assigned to them, particularly regarding the use of the accounting information that they can access. In ABC, close liaison, in terms of physical staff placement at the customers' sites, enhanced transparency that enabled improvement and increased collaboration with customers.

Within the relationship between ABC and its LTPs, the presence of liaisons via the role of the sales team at LTPs enabled both internal and global transparency. The daily representation of ABC's sales teams at their respective LTPs enabled both formal and informal interactions, discussion and debates around accounting and non-accounting information (Vaivio, 2004), thus allowing an understanding of the local knowledge of both parties (i.e. internal transparency). ABC's sales teams benefitted from an internal visibility of their own local knowledge that was amenable to the LTPs' operational decisions. They were able to connect details of LTPs with the visibility they brought to the LTPs' operation to create more opportunities for joint activities and involvement (i.e. global transparency).

A similar position, known as an implant, was observed in the management of IKAs. The physical presence of the implant at each IKA allowed frequent meetings to

discuss issues about delivery performance and the improvement of customer service. Visibility of the IKAs' internal operations, especially when the implants were given a privileged position as a member of their own staff, enhanced their understanding of both ABC and IKAs (i.e. internal transparency). Internal transparency refers to the extent to which the implants benefitted from the visibility present within the internal operation of IKAs. Frequent observation at the customers' sites, particularly of the front shelves and back stores at customers' retail outlets, provided on-site information about inventory levels and this enabled the implants to relate them to the wider system (i.e. global transparency). Global transparency refers to the ability of the implants to have a "wider range of contextual information designed to help them to interact creatively" (Adler & Borys, 1996, p. 73) with the various supply chain constituents, both upstream and downstream. The enhanced transparency enabled the implants to identify problems for delivery failure and to share these with IKAs in order to make improvements. The opportunity to search customers' procurement databases enabled them to check their own product details, including pricing and product specifications. Product data misalignment, such as incorrect pricing, potentially led to delivery failure as ABC could not continue order processing if there were pricing differences for the products ordered by customers.

Physical placement of implant at each IKA made it possible for her to engage in face-to-face contact and direct communication with IKAs. The opportunity to be close to the details of operational information (e.g. the details of how many units remained at



the retail's outlet stores) was used to persuade customers to create orders, thus prompting more sales. Moreover, the liaisons possessed information about product availability which could be immediately scanned to identify which products should be ordered, increasing the possibility of order fulfilment. In addition, the implant was aware of the IKA's "true picture" of its inventory level: inefficient management of the inventory at the back stores (such as mixing one brand with another) might have led to inaccurate decisions over sales orders if the implant had not drawn attention to this by being present at the store.

According to Vaivio (2004), non-financial management accounting measurement helps to probe local knowledge, "open[ing] a direct new visibility deep into the organization's operational processes" (p. 48). Indeed, the understanding of local experience and knowledge is an important characteristic of enabling control formalization (Wouters and Wilderom, 2008; Ahrens and Chapman, 2004; Jorgensen and Messner, 2009). According to Free (2007), the extent to which OBA has been used by supply chain members "to support collaborative efforts and enhance their work" (p. 928) may contribute to the enabling supply chain relationship. I found that the local knowledge that had been developed through OBA intertwined with the role of liaison in the process of managing the supply chain.

The enabling use of OBA, through the implants, fosters enabling orientation of the supply chain. Their daily presence at customers' sites provided a space for

exchanging opinions that assisted in making operational decisions. They were made aware of product availability and could prompt customers to change a customer's product promotion plan if there was a problem with availability. They also helped customers to decide whether to proceed with the promotion of particular products, depending on ABC's product availability. Information about which products would be unavailable for ordering, when they would become available and in what quantities, was seen as a leading indicator to help IKAs to understand ABC's situation more clearly before making their decisions, particularly in planning for promotional activities. When there was a prolonged OOS situation, the implant took the initiative to use inventory balances at LTPs to initiate stock transfer so that they could prioritize how to fulfil the IKA's orders, thereby allowing flexibility and efficiency of the supply chain. ABC had flexible access to IKAs and thus made an extended effort to offer support in, for instance, checking and counting their stock balances to obtain accurate information. The effort made towards improving IKAs' inefficiencies in terms of distribution and warehouse management would also benefit ABC.

In summary, the daily presence of liaisons at the customers' sites enabled them (the sales team at LTPs and the implants at IKAs) "to see with [their] own eyes and talk to the people closest to the events" (Jonsson and Gronlund, 1988, p. 524). While gaining a local knowledge of customers (i.e. internal transparency), they made their own local knowledge visible to customers; they were therefore able to link that external

visibility to the internal (i.e. global transparency). Moreover, Hall (2010) argues that the quality of accounting information depends on “the closeness to operation” (p. 304); the placement of liaisons at customers’ sites therefore served as a useful mechanism for acquiring relevant information that helped to foster an enabling supply chain relationship. They aimed at understanding the problems presented by customers, thus helping them to improve and to contribute to the efficiency of the supply chain.

The provision of accounting information both financial (e.g. LTPs’ total sales amount by channel, product category, outlets) and non-financial (e.g. inventory balances of warehouses at LTPs or IKAs), through the practice of OBA, was used by the liaisons as a means of enabling their work: “information that supports them, that they can use for their own purposes to assess how things are going, identify problems, prioritize issues, develop ideas for improvement, engineer solutions for concrete problems, or make decisions” (Wouters and Wilderom, 2008, p. 489). Specific problems can be solved when the information is made clear both within organizations (Ahrens and Chapman, 2004) and between them (Free, 2007). In other words, visibility enabled the liaisons to cast an eye over the operational sites to avoid delivery failures and to react if there were any problems which required immediate responses, thus creating a space for enabling control. OBA becomes a space for the provision of accounting information in the inter-firm context in order to assess “the financial impact of a range of operational decisions, so that if not the best, then at least better decisions

about action can be made” (Chapman, 1997 p. 202), thereby enhancing enabling orientation of supply chain management.

## **5.7. Conclusion**

Firms that establish a strategic supply chain might wish to consider the enabling approach to open book accounting (OBA). My study examines the phenomena of OBA in the context of the supply chain. It aims to build on prior research on the use of OBA by investigating a manufacturer’s relationship with several firms that were directly collaborating (i.e. a network of supply chain). The study found that a liaison team played an important role in the practice of OBA. The use of liaison within the supply chain relationship may contribute to the enabling nature of OBA, and allow efficiency and flexibility within supply chain management. Closer engagement with enabling approaches to OBA may assist in developing a more nuanced understanding of the functioning of accounting in supply chain operational management.

The emphasis on performance measures within the supply chain relationship motivated the liaison to seek information about, for instance, the local knowledge of customers. It served as a prompt for developing further understanding of local customer operation through staff liaison. In this way, OBA was established and used in enabling ways. Adler and Borys (1996) suggest that when performance measures in a competitive situation are used to seek improvement, it is likely that enabling

orientation will exist. It can therefore be argued that OBA fosters enabling supply chain management.

## CHAPTER 6

### **The Role of Accounting in Supply Chain Identity Formation: Integration, Differentiation and Fragmentation perspectives**

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In contemporary business life, in particular, social contexts are frequently portrayed as unstable, ambiguous and sometimes contradictory. Even though turbulence and instability may sometimes be exaggerated, in many organizational and life situations, the elements of change, contradiction and fragmentations are salient and create reactions such as curiosity, anxiety and search for ways of actively dealing with identity.

(Sveningsson and Alvesson, 2003, p. 1167)

#### **6.1. Introduction**

Supply chain management is challenging. The growing dominance of large retailers, for example, may either create a source of conflict in which they constantly seek to appropriate profits from the manufacturer, or it may bring about a trusting and collaborative commitment (Free, 2007). Their assumed identity, either as a dominating or dominated actor, reflects the ways in which their social context is enacted or interpreted (Weick, Sutcliffe and Obstfeld, 2005). In a sense, “the ability of members to negotiate aims, build trust or manage power all rest in part on the way they view each other” (Huxham and Vangen, 2005, p. 187). As exemplified at Toyota, a strong network identity is developed through knowledge coordination and rules, which encourages supply chain members to feel part of a larger group and thus be willing to openly share knowledge (Dyer and Noeboka, 2000). Knowing what constitutes identity formation in the supply chain relationship would probably help its members to manage their network.

While many studies have highlighted the relevance of identity for understanding how firms collaborate, few studies have addressed the nature of identity in a network (Huemer et al, 2004). At stake studies of network identity follow the notion of organisational identity, emphasizing Albert and Whetten's organizational attributes such as central, distinctive and enduring (1985; see Empson, 2004, for detail). An identity in the network constitutes "collective" perception of its members in the network and it is assumed to be stable and fixed (Sokefeld, 1999). However, as noted by Huemer et al. (2004), the process of identification<sup>23</sup> (and identity) in a network is rather complex because a network consists of cooperation and, at the same time, competition. The "shifting circles of identification in inter-organisational relationship", for example, may impede homogenization among its members (Ellis and Ybema, 2010). In-depth analyses on the processes of inter-organizational collaboration may bring to light the intricacies of the network identity and its associated concepts.

In accounting literature, the process of managing inter-organizational collaboration has been shown to be effective through the adoption of accounting and control systems. In the supply chain relationship, accounting and controls play an important role in the cost reduction process (Cooper and Slagmulder, 2004; Seal et al., 1999;

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<sup>23</sup> Following a definition by Mael and Ashforth (1992), Huemer et al. (2004) define identification as a person's belongingness with an organization. The concept of identification is argued to be very closely related to identity. The debates about these two concepts lie beyond the scope of this thesis.

Carr and Ng, 1995). In fact, Caglio and Ditillo (2008), in their recent review of accounting in the inter-firm relationship, have identified the roles of accounting as having transcended from “the technical level to become more symbolic” (p. 889). Accounting is said to have a symbolic function when its use influences supply chain identity (Free, 2007; Chua and Mahama, 2007). Chua and Mahama (2007), for example, illustrate how a stricter use of accounting measures leads to a change of perception of the relationship from trust to distrust. However, the nature of supply chain identity as characterized by accounting and controls remains unclear. Further research is required into the concept that embodies the uses of supply chain accounting and controls, on which a symbolic system depends.

The present study investigates more thoroughly the relationship between accounting and identity by adopting ethnographic research. Attending to operational and everyday processes of managing the supply chain provides greater insights into the intricacies that give rise to the process of identity construction in the supply chain network. Based on a detailed analysis of supply chain activities between a manufacturer and its two major customers (dealers and retailers), this chapter demonstrates the ways in which firms view supply chain collaboration and how they employ accounting and controls to achieve their supply chain objectives. In so doing, multiple perspectives – integration, differentiation and fragmentation – introduced by Martin (1992, 2002), are used as analytical framing in order to explore and understand the ways in which manufacturer and customers collaborate.



The chapter is organized as follows. Section 6.2 presents the theoretical background of the study by focusing both on the link between accounting and identity formation and on cultural aspects. The section also describes the concepts of supply chain identity as derived from accounting literature. The empirical section is divided into two: first of these describes the emergence of supply chain network, while the subsequent section presents the three perspectives of supply chain identities. Section 6.4 discusses these findings and subsequently draws conclusions.

## **6.2. Theoretical framework and Literature reviews**

### **6.2.1. Identity and the supply chain relationship**

In order to achieve competitive advantage, it has become increasingly important to manage a supply chain so that it goes beyond the traditional boundaries of a firm. As stated previously, by creating a strong network identity Toyota has established a high standard of performance in knowledge-sharing as a source of competitive advantage (Dyer and Nobeoka, 2000). In addition, identity and perception have also been found to influence both organizational processes in strategic change (Gioia and Thomas, 1996) and motivation for cooperation (Kogut and Zander, 1996). In this sense, identity has been one of the central issues in understanding “meanings and motivation, commitment, loyalty, logics of action and decision-making, stability and change, leadership, group and intergroup relations, organizational collaborations,

etc.” (Sveningsson and Alvesson, 2003, p. 1163). The present study further explicates the identity issue as it affects the supply chain relationship. Identity in a supply chain network matters because it can recognize one relationship to another in the network.

Many researchers have conceptualized the identity phenomenon within a number of different theoretical perspectives. Huemer et al. (2004) offer a concept of network identity that “captures the distinct identity that a firm acquires through its relationship with other actors in the network” (p.61). Dyer and Nobeoka (2000) describe the concept of network identity as the partners' shared sense of purpose (or sameness) and belonging to the Toyota network through coordinating knowledge, thus creating a strong network.

Identity has also been linked to culture. According to Thrane and Hald (2006), when individuals have collectively shared the understanding about an organization, then the organizational identity is strongly connected to culture. Hatch and Schultz (1997) also elaborate on this notion of identity and its link to culture:

We view organizational identity as grounded in local meanings and organizational symbols and thus embedded in organizational culture, which we see as the internal symbolic context for the development and maintenance of organizational identity... organizational identity emerges from the on-going interactions between organizational members (including middle level managers) as well as top management influence. (p. 358)

Martin (2002) denotes culture as a pattern of interpretation or of the ways in which the interpretation is enacted. Since culture is closely related to identity, an analysis of culture frequently leads to an issue of identity. However, most culture studies often

adopt a single perspective and offer “such an oversimplified view of how the world works” (ibid, p. 110). Martin emphasizes the importance of studying culture from multiple perspectives:

The purpose of social science theory is not to comfort managers with promises of relatively easy solutions but to capture and perhaps even construct organizational experiences, in all their discomfoting complexity, conflict, ambiguity and flux. I believe that only small part of an organization’s culture consists of issues and perceptions that people see clearly and agree on. The rest is characterized by incompletely understood conflicts between groups; inconsistencies between, for example, what people say they value and what they do; ambiguities about what frequently used phrases and goal statements actually means; and irreconcilable paradoxes and contradictions (Martin, 2002, p. 9)

She suggests that identity, similar to culture, should be studied from three perspectives, namely, integration, differentiation and fragmentation at the same time:

“Albert and Whetten’s (1985) definitions of image [and identity] tacitly assume organization-wide consensus among employees (“collective” and “commonly shared”) distinctiveness, an echo of the “shared and “unique” aspects of many integrationist definition of culture...research on organizational identity and image, having to date relied heavily on integrationist assumptions, would be much enriched by a full consideration of the relevance of ideas drawn from differentiation and fragmentation cultural research.” (p.113-114)

*Integration* is the perspective most widely used by researchers to study culture. They often look for “mutually consistent interpretation”, “organization-wide consensus” and “clarity” of cultural manifestation (Martin, 2002, p. 94). For example, values, assumptions and a shared sense of purpose and organizational goals are agreed by all the members of the culture, resulting in unity and harmony. In contrast, the *differentiation* perspective offers an explanation of culture within an organization as having “inconsistent interpretation among its members” (ibid, p. 120) and giving rise to subcultural analysis. This directs researchers to look for conflict and contradiction

among diverse subcultures. The third perspective, *fragmentation*, conceptualizes organizational culture as focusing on “ambiguity, excluding the clarity implicit in both consistency and inconsistency” (ibid, p. 120). Ambiguity “includes multiple, contradictory meanings that are simultaneously true and false, paradoxes, ironies, and irreconcilable tensions” (ibid, p. 110). However, recent debates on dynamic, fluid and complex views of identity are still scarce (Sveningsson and Alvesson, 2003; Gioia, Shultz and Corley, 2000).

Applying these concepts in studying identity and relationships between organizations, such as those in supply chain networks, provides an understanding of how one organization gives meanings to their partners, or vice versa. As Sveningsson and Alvesson denote above (Introduction, p.1), both an organization’s characteristics and its identity are subject to fluidity and fragmentation. Similarly, the changing focus of organizations from an internal to an external view challenges the management of identity. Features of the supply chain relationship include hierarchical and asymmetrical relations, manager interaction and information-sharing (Free, 2007) and are frequently associated with meanings and perception. Albert, Ashforth and Dutton (2000) suggest:

...it is because identity is problematic...and yet so crucial to how and what one values, thinks, feels and does in all social domain, including organizations that the dynamics of identity need to be better understood. (p.14)

In sum, while prominent views of identity has characterised culture as stable and fixed, the call for research to explore the complex nature of identities might add to the

understanding of organisational activities. The notion of multiple identities, such as those suggested by Martin (2002), can be conceptualised in terms of multiple perspectives: integration, differentiation and fragmentation. Applying these perspectives to the study of network of supply chain might help firms to explore and understand the dynamics of firms' relationship; their shared concern, ambiguities and incompatibilities.

### **6.2.2. Accounting and identity**

The notion of accounting and controls as part of symbolic system has long been discussed in accounting literature but emphasizing mainly within an organizational context (e.g. Dent, 1991; Ahrens and Mollona, 2007). Dent (1991) for example demonstrates how accounting practices are shared among its members thus give rise to a new culture, from traditional "railway" to a "business"- oriented company (thus indicating a new identity). He explains the constitutive role of accounting's symbolic meaning, where new forms of calculation provide innovative ways of organizing, thus reflecting a new identity:

[...] Business Managers gained contexts to interact with others. In these contexts, they recast dialogue and debate from a railway language of operations and engineering to their business language of markets and profits.

(Dent, 1991, p. 724)

Ahrens and Mollona (2007) offer another perspective: accounting and controls are constitutive of culture (and subcultural) and their symbolic system are characterised as shared (and fragmented). Based on the observations at two departments of a

manufacturing company, they argue that accounting and control practices are constitutive of the organizational culture and subculture of various departments. They observe that accounting measurements in the cold department were agreed as established practice among the team. Such shared practices exhibit a comparatively complete integration of organization and objectives. Disagreement over technical details, if any, goes unnoticed and procedures thus become unified. The shared work practices therefore reflect a symbolic significance and develop stability over time. In contrast, the hot department, containing subdivisions, exhibits symbolic fragmentation of cultural practice, where members offer multiple interpretations of what constitutes a good heat measurement.

While the above studies have been shown the symbolic role of accounting in intra-firm setting, recent inter-firm accounting studies have indeed indicated the constitutive role of accounting in specifically in identity formation (Chua and Mahama, 2007; Thrane and Hald, 2006; Free, 2007; Mouritsen et al., 2001). These studies have shown that accounting may give an impact to various types of identity such as organizational identity and network (supply chain) identity. Through two case studies, Mouritsen et al. (2001) demonstrate the adoption of accounting and control system in outsourcing relationship was found to reduce information asymmetry between the partnering firms and at the same time to create an opportunity for new organizational identities of the buying firms by redefining their core competencies.

While Mouritsen et al. (2001) illustrate the link between accounting and organizational identity, Chua and Mahama (2007) recognize the ways in which accounting information influences the corporate identity. They studied the outsourcing relationship and demonstrating how accounting emerged in this relationship. There was a “poor relationship business performance indicator” which created controversy between a buyer and its suppliers, who were initially trusted to “be proactive, innovative and to provide proprietary solutions”. Since the buyer had no knowledge of creating performance measures for the suppliers, these were incorrectly developed; the qualitative measures were able to capture the value creation of suppliers' technology but not the associated increase in total cost. The PMS outcome was therefore associated with self-interested, opportunistic and “unfair” suppliers and was not to be trusted. Besides accounting, they observe that the “significant others”, such as shareholders and suppliers, are all important actors. The perception and meanings of "unfair", "immature", "took advantage", “inconsistent” and "helpful assistance" of the actors - and thus their identity - are therefore associated with the diverse development of supply chain measures. They suggest that accounting helps to “construct social identities that in turn come to be linked with the development of different social accounting metrics” (p. 78).

Free (2007) extends this line of research by showing that coercive and enabling uses of accounting could lead to different social identities of the supply chain relationship. He reports in a case study how expansive OBA developed through coercion led to

unfair practice and a feeling of distrust, whereas in another case he observes that an enabling use of OBA led to trust and sharing. Free argues that "accounting can play an important role in changing mindsets and constructing identities in supply chain relationship" (p. 927-928). Thrane and Hald (2006) demonstrate how accounting emerges as an actor that constructs and reconstructs the boundaries in the focal firm's supply field, thus creating a link between accounting and issues of identity. They found that accounting influenced the fragmentation of a firm's internal entities as well as the integration of its external relations.

The development and implementation of supply chain accounting is therefore characterized as a dynamic process where organizational and corporate identities or the supply chain relationship identity may change. In an attempt to manage the supply chain identity, a dominant partner may impose a strict control system in order to influence its partner to act according to its wishes (Caker, 2010). There are instances where allied partners advance positions, negotiate their roles and induce the other partner to act in their favour (Free, 2007). On the other hand, a dominant partner may enforce continuous interactions with key performance measures that create a shared sense of purpose (Thrane and Hald, 2006), thus exhibiting supply chain integration. No matter how far such power or trust influences the flux or stability of the relationship, it is interesting to understand how dominating or dominated partners collaborate in this situation. Moreover, collaboration may be simultaneously



integrated, differentiated and fragmented, but this remains the subject for further research.

The present research therefore seeks to explore the processes and dynamics of supply chain accounting and control, and their link to identity phenomena in the inter-firm setting. Such an issue has been only tangentially addressed in recent inter-firm accounting literature and has yet to be examined in detail. Further research into the accounting role within this context is necessary in order to shed light on the ways in which supply chain members draw upon accounting to manage their identities. Understanding the symbolic significance of the uses of accounting and controls helps to explain and describe “the extent to which they are shared or in competition with one another” (Ahrens and Mollona, 2007, p. 306). It may be necessary to seek further understanding of the concepts that characterize supply chain accounting, and thus the nature of supply chain identity. Although this issue has not yet been fully realized, the concepts of identities derived from literature on inter-firm accounting provide a starting point for the investigation. The following section explains several identity concepts extracted from the literature.

### **6.2.3. The concepts of supply chain identity derived from accounting literature**

This section highlights concepts of supply chain identity that are derived from inter-firm accounting literature. In order to grasp the key concepts of supply chain identities, Martin's concepts of integration, differentiation and fragmentation (2002) are used to analyse the field studies presented in this section. The three perspectives are depicted in italics below.

Chua and Mahama (2007) found that the ambiguity and asymmetry of information generated by a cost-plus pricing strategy led to conflicts between OzCom, the buyer, and its supplier, which in turn led to goal incongruence. The use of accounting measures in the supply chain was embedded with "interpretive rules and expectations". The symbolic *fragmentation* of the supply chain relationship was marked by the different notions of what were considered to be "acceptable behaviour" as (ambiguously) prescribed by performance measures. For suppliers, value or acceptable behaviour was described in terms of the ability to deliver technological expertise, as agreed and reflected in the existing performance measures. However, when the outsourcing cost increased, OzCom changed its perception; cost saving was more important than the value of technology, which led to confusion among its suppliers, who were previously trusted as OzCom's developers of technology but later labelled as "unfair". This distrust was associated with a lack of transparency in their pricing policies, and was further marked by tighter control measures to avoid their opportunistic behaviour. There were therefore inconsistencies

(the changes in expectations as reflected through the use of different measures) and ambiguity (the unclear nature of the measures developed).

Mouritsen et al. (2001) report how formalization of product functional analysis following outsourcing in NewTech (pseudonym) led to opportunities to customize suppliers' technology and innovation. This involved flexible outsourcing arrangements with many different suppliers so that different technological potentials could be explored and exploited. Instead of being a "technology developer", NewTech became a "technology co-coordinator". Furthermore, as the technology adopted by the company became fragmented and complex, employees' tasks were redefined in order to handle the internal co-ordination and monitoring of different suppliers. Accordingly, as a symbolic connotation of the roles played by the employees, the department's name was changed from "Development Department" to "Product Department". In a second field study by Mouritsen et al. (2001) the key driver of LeanTech (pseudonym) towards lean organization was seen to offer specific solutions to its customers through outsourcing, which was preferred in order to achieve efficiency in production. A unified concern among the managers of both supplier and buyer about information asymmetry following outsourcing called for OBA as a medium to control and facilitate production. Both case studies, which exhibited the *integration* of an outsourcing relationship, demonstrate how accounting becomes instrumental in the processes of outsourcing.

The agreed notion of trust and sharing between allied partners can be observed from the beginning in the first supply chain relationship described by Free (2007). Concern reported by PulpCo (a supplier's pseudonym) about the efficacy of partnership was undermined by the profit maximization logic displayed by ConCo (a buyer's pseudonym). There was disagreement over how category management should proceed. However, the legitimacy of power within the relationship, which was dominated by ConCo, forced PulpCo to follow ConCo's "bottom line" strategy. Such domination was observed in the ways in which OBA was utilized. ConCo used OBA to "create competition" among suppliers, which conflicted with PulpCo's notion of trusting collaboration, thus exhibiting *differentiation* of supply chain. In Free's second field study, the notion of OBA introduced by SuperCo (buyer's pseudonym) was used collaboratively with HairCo (supplier's pseudonym). They agreed over the use of OBA for developing a joint category management plan. For example, scorecards with KPIs were developed by representatives of the two organizations for the purpose of progress and performance review. This created considerable *integration* in the operation of the alliance. Both organizations seemed to be *unified* towards the goals of collaboration and thus both parties benefited from the category management program. HairCo was seen as a category management expert while SuperCo made a tremendous improvement in its product category sales.

Understanding the role of accounting in supply chain identity is a new area of research. There have been many interesting studies on accounting in the supply chain,

but it is rather difficult to establish how far they inform one another. A close reading of the studies nevertheless explains the concepts of *integration*, *differentiation* and *fragmentation* of identity; Martin's concept of cultures (2002), for example, has been useful in understanding the function of accounting in supply chains. However, none of the studies have described identities from all three perspectives, raising the question as to how far they can co-exist. The issue of simultaneity is important as most researchers conceptualize identity from a single perspective. However, Sveningsson and Alvesson's view, as stated at the start of this chapter (quotation, p. 148) is that identity is flux and unstable. Similarly, Martin perceives a workplace as complex (quotation, section 6.2.1, p.152-153). This research therefore attempts to explore, through a case study, the dynamics through which the three concepts emerged; in particular, it aims to observe the extent to which they may co-exist.

### **6.3. The emergence of ABC's supply chain network**

The long standing operation of ABC in Malaysia resulted in strong network of supply chain relations between ABC and its customers. While ABC has established close collaboration with LTPs for many years, the centralized distribution to IKAs (see Chapter 4 and 5 for details) later resulted in more collaborative initiatives took place between them. Indeed, the inclusion of IKAs as part of their direct distribution channel gave several advantages to ABC. First, there would be a more efficient picking process as orders from retailers would be centralized in large quantities rather than based on individual store. Second, with the change in the buying behaviour of consumers from traditional shopping to visiting a one-stop leisure centre (the format adopted by international retailers), ABC's product availability at these retailers was certainly important. Moreover, the rapid sales growth enjoyed by international retailers offered the potential for ABC to expand their market share. Direct distribution could therefore assist both ABC and retailers in managing distribution and product availability issues.

However, the inclusion of retailers in ABC's distribution channel affected sales potential for dealers, as these retailers were previously their customers. These dealers had been involved since the early days of ABC's operation, so "it was something that's very difficult, to ignore them as trading partners", as commented by its supply chain director. ABC's interest in LTPs was evident when there were large NKAs that requested direct delivery from ABC's distribution centre to their own, but ABC had

to limit the number of direct deliveries and maintain these deliveries through LTPs, mainly to “protect the interest of LTPs.” (Commercial Manager).

ABC continuously stipulated several requirements to LTPs in order to continue business with them. For instance, LTPs had to maintain a well-equipped warehouse facility in terms of a racking system and an effective loading and unloading system, as well as train skilled staff in inventory handling and forklift driving. For ABC, such requirements were important so that LTPs continuously met the business standard and be ready to face future challenges.

ABC’s network of supply chain – within LTPs and IKAs, therefore consisted of both competition and cooperation. The next three sections illustrate ABC’s relationship with each of its two major customers: the LTPs and the IKAs. First, the ABC-LTP relationship could be characterised as hierarchical. There was unified, collective-wide action and consistency that allowed integration of ABC with its LTPs. Second, there were differentiated groups. As manufacturer, ABC also differed from its LTPs and IKAs, the customers. There were among them conflicting and inconsistent views in managing performance indicators. Third, ABC’s relationship with the IKAs was based mainly on arm’s length dealings, although several efforts gradually emerged towards creating a more collaborative relationship. Nevertheless, within this relationship there were disagreement and contradiction which resulted in the fragmentation of the supply chain.

#### **6.4. Integration perspective: harmonizing ABC and LTPs**

Prior to the restructuring of ABC's distribution system, LTPs operated independently from ABC. They simply bought the products from the company and sold these to customers of their choice. The relationship was characterized as a market-based transaction and it was left entirely to LTPs to manage ABC's products. Most LTPs were initially small firms with little knowledge of how to conduct a proper business process: some were careless of their stock, which affected its quality; others tended to misuse certain ABC products by re-packing and re-labelling expired or damaged products and then selling them at night markets. These situations made a damaging impact on ABC's brand reputation.

After the restructuring process, a more formal distribution management was in place. The historical relationship provided an impetus for reciprocity and strong collaboration. There were four regional sales branches throughout the country, each of which was led by a sales branch manager responsible for monitoring the LTPs' sales operation. Those LTPs that were located in the same or nearby area were further grouped as one sales area supervised by an area business manager (ABM). In addition, ABC placed a sales team at each LTP office throughout the country. The following sections illustrate the views of ABC and its LTPs on their supply chain collaboration; it can be seen that such views are consistent with the integration perspective and are evident in two areas: joint field sales management through shared KPIs and the distributor management incentives scheme.



*Creating unity and collective-wide action through shared key performance indicators*

After the restructuring process, ABC was able to focus on those selected LTPs that were interested in and capable of meeting ABC's business standard practices. This made it easier for ABC to educate them to be effective as one of its sub supply chains. In describing the state of business of LTPs at that time, the supply chain director associated the LTPs' lack of structured business process in terms of the lack of an accounting system:

The dealers [LTPs], in the early days in fact have no internal or formal accounting methods whereas we have a more a structured process [...]. So, we can explain, or rather explain and train, our partners in terms of how we think and run our operation, so that they can also put in the right level of attention and control and allocation and understand how we spend the money, how the money goes, how the returns are made. So it's an up-skilling process for the dealers or LTPs as well.

Director of Supply Chain,  
Supply Chain Division, ABC

The director viewed his company as having expertise and therefore able to "explain and train" its partners in order to develop a business through a proper accounting and control system. In addition, the formalization of accounting as part of business practice was seen as an "up-skilling" process for developing the LTPs' business. One of the managers, directly involved with the LTPs' development since the beginning, also emphasized the importance of accounting, particularly cost management at the LTPs' operation:

We started with the best practice because we want to ensure the operation cost [of LTPs] is manageable [...]. Let say you [as LTPs] open a traditional shop, and then you arrange the products, but you don't know which one is expired and how much and then when people come, the stock is not there. So you don't have the picture of your shop. So now with these best

practices, your warehouse is very transparent. You know the actual stock, what is the shelf life, you know how much, so we provide you with the system, with control and all that.

Warehouse Development Manager,  
Supply Chain Division, ABC

The concern for developing shared growth with LTPs was thus reflected through an emphasis in developing a formal accounting system. There were two main accounting systems in place: a PMS through shared KPIs and an incentives scheme.

The shared KPIs were based on five components: input sales, throughput sales, stock cover, credit days and market return, and these were established as key targets by ABC with agreement from LTPs. Monthly performance review meetings were held between them to discuss how far KPIs had been achieved. Preparation of documentation prior to the meeting resulted in both teams becoming involved with informal discussion and interaction, thus exhibiting *collective-wide action*.

The knowledge and expertise extended by ABC to its LTPs, particularly in terms of the accounting system, was greatly appreciated. This was acknowledged by one of the LTPs:

They [ABC] are very committed to their dealers, LTPs, and we are equally committed as a long term partner. It's a fantastic company, they are very concerned about our business, whether we make money or not, whether it's growing. We have a meeting, if we have problem, they have expertise over there. It's a good partnership.

Managing Director, LTP A

One of the KPIs that united ABC and its LTPs was the effort put in towards sales target achievement. With a shared sales target, ABC's sales team and the LTPs became a network, and a flexible approach to sales target achievement appealed to them:

They are actually behind me. One great thing that happens is that they see us united regardless of whether you are LTP or ABC. They feel as a central region. They feel very bad if the central region does not achieve something. So they will try. Let's say, if dealer A is not doing well, then dealer B will try to cover in such a way.

Sales Manager, Branch A, ABC

He further corroborated the spirit of unity with the LTPs' commitment to achieve a group sales target which arose from their sense of belonging to the "network":

We work as a network. Of course there is a coordinator - myself - and my team. For instance, this month the number [sales target] is one million and we are going to be short of, let's say, two hundred thousand. So, [I will ask]: "Dealer C, can you contribute, let's say, an extra ten per cent above your normal target?" And dealer B, can you also do that?" And finally we achieved. Dealer A alone may not achieve. So next month we play in that kind of thing, depending on what to task. If everything is doing well there is not so much issue, we look for other parameters. So that's how excellent the relationship is between the branch and the dealers.

Sales Manager, Branch A, ABC

This spirit of *unity* was also evident when I attended the annual sales convention. All sales related members of staff, including those from the LTPs, were invited to the convention. The annual event was held to review the previous year's overall sales performance as well as to share the upcoming year's sales strategies. Several sales-related achievements were announced on that day to reward the sales staff in the whole region, including those from the LTPs. Indeed, each sales region had its own way of promoting its team – for instance, the staff sang their own theme song whenever their team won a certain award.

One LTP viewed the partnership between ABC and its LTPs as complementing each other:

Our agenda is the same as ABC. The company runs with ABC. They will give instructions to my sales people regarding sales and marketing activities. We will look after them in the sense of collection of the debts. And we will also look after the warehousing and deliveries.

Managing Director, LTP B

Their informal conversation over lunch barely indicated that staff members were from different organizations. There was extensive informal networking between ABC and its LTPs, much of this centring around interest in operational issues such as brand performance, stock availability, new products, pricing, promotional discounts, sales target and incentives. Good humour existed alongside work-related discussion. Further, when shadowing an LTP salesman, I observed that he repeatedly mentioned the sales training provided by ABC to LTPs which gave him the opportunity to be trained as a member of ABC's own sales staff. In fact, they were also entitled to sales incentives which were paid directly by ABC, based on throughput pay-out, targeted calls and targeted strike. This was acknowledged by the sales branch manager:

One thing about these salesmen, in term of salary structure, 40% of their salary is incentives. So, if they do not achieve the target, they would be demoralized, things like that. But the good thing is that there is alignment from the head-quarter [overseas] to Malaysia. Alignment in terms of top down and we all understand this and we are all, everybody talks about the same thing.

Sales Manager, Branch A, ABC

While ABC and LTPs' uses of the performance measures ascribed unity and collective-wide action, the measures were consistent and mutually reinforced with the incentives scheme established to reward sales team, as discussed in the next section.

*Adopting consistent and mutually reinforced distributor management incentives scheme*

ABC greatly emphasized the importance of quality and freshness of its products, and its distributor warehouse incentive scheme (DWIS) sought to educate LTPs to product care. The list of criteria under DWIS<sup>24</sup> guided their attention to four main areas of warehouse operation: infrastructure, hygiene and maintenance (e.g. storage capacity, safety, handling equipment facility), standard operation procedures (e.g. stock check, cycle count), inventory report accuracy and data transmission (e.g. frequency of sales data transmission). Those LTPs that were able to meet these criteria were entitled to a certain amount of financial assistance to further cover future warehouse development and maintenance. In other words, the DWIS symbolized ABC's expectations of its LTPs:

We are very cautious about quality. We are very cautious about halal<sup>25</sup>. We are very cautious about how they wrap the products, how the trucks go in, you know. All these need to be

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<sup>24</sup> As of the fieldwork period, DWIS has been reviewed four times to include more criteria and increased incentives.

<sup>25</sup> Halal refers to the food that conforms to Islamic Law.

checked, to be managed, and because we pay incentives to them, we want them to follow our standard. So that's why we have a warehouse development person [manager] to handle these customers.

Customer Service Manager,  
Supply Chain Division, ABC

While the DWIS criteria were used as general guidance to LTPs, a shared concern about what they regarded as good warehouse practice encouraged the LTPs to apply a warehouse design and structure similar to that of ABC. During one warehouse audit, I observed that the warehouse development manager was warmly welcomed by the LTP. The purpose of the visit was to check if the LTP (already entitled to DWIS at that time) continuously maintained the warehouse standard as required under the DWIS scheme. The warehouse manager carried out a quick inspection, and it was clear that all products were well-organized (in the same way as those I observed at ABC's national distribution centre, in terms of roofing, racking, loading and unloading bay design, cleanliness, safety signs, etc.). I asked the warehouse development manager about the similarity and he confirmed that the warehouse criteria were set to ABC's warehouse standard.

The LTP's operation manager repeatedly commented to me about how supportive ABC had been. He shared his experience of working with the ABC's warehouse development manager, drawing particular attention to his advice on maintaining an efficient warehouse facility, as he never previously considered how to develop his own warehouse to its current level. He praised the efforts made by ABC and the manager in giving continuous support. The warehouse manager informed me that, in

order to accommodate the need for increased storage capacity, the LTP's present warehouse was actually the fourth to be set up, having moved from one site to another.

Since compliance to warehouse operation procedures was important, ABC provided free training and guidance in warehouse development. They supported LTPs in developing a warehouse management system using Syspro6 so that they could regularly update their sales and inventory information. The warehouse development manager from the supply chain division was responsible for inspecting LTPs' warehouses from time to time. In addition, the sales team at each of the LTPs' sites was also expected to monitor warehouse performance:

We provide an effective, efficient system, I mean, a computer system. This was from the beginning but now we are enhancing the system like most other small companies or Chinese [owned] companies, they don't have the WMS, but our distributor has the WMS system. So it's quite advanced even for other markets, I mean ABC from other markets, when they come and look they are impressed with our dealers [LTPs].

Warehouse Development Manager,  
Supply Chain Division, ABC

When ABC introduced handheld devices for its own sales representatives, the LTPs' sales representatives were also encouraged to use the same device, which enabled a large volume of information about new products or pricing updates, for instance, to be stored in one place for a prompt response to basic questions when dealing with customers. In addition, ABC outsourced the collection and payment process, known as the distributor card program, from LTPs to a local bank. The majority of LTPs subscribed to this program which helped to manage their credit problem with ABC.

The warehouse manager also shared his pride in the efforts made in developing the LTPs warehouses which later became one of the best practices of dealership management. For example, the DWIS was regarded as one of the best warehouse practices for LTPs and the manager was frequently invited to share the DWIS with other ABC markets. He also communicated the LTPs' view of ABC as distinct from the relationship of any other principal with an agent. The perception by LTPs of their relationship with ABC was different from that between other manufacturers and dealers:

To them, ABC is doing something. Like other companies, they are not doing anything. Most principals, when you take their products, they don't care about your warehouse or store. But at ABC, we take care up to the consumers. I mean we have sales teams that we send there [to consumers], right.

Warehouse Development Manager,  
Supply Chain Division, ABC

The DWIS had been used as a means to achieve ABC's business standard, or so-called best practice, but it also indirectly lent opportunity for small LTPs to learn how to manage the warehouse more effectively and thus expand their business. Applying DWIS was seen as a motivation to obtain financial assistance, but it also introduced good practice to LTPs. It was clear during my visit to other LTP warehouses that they had adopted concepts, designs and procedures similar to those used at ABC's own warehouses. A shared concern about what should be regarded as good warehouse practice encouraged LTPs to establish, for instance, similar pallet racking, warehouse design (e.g. covering the loading and unloading bay) and standard operating



procedures. During meetings at LTPs, many staff members told me of ABC's continuous support through regular visits and frequent discussions which offered opportunities for LTPs to obtain advice and suggestions about how to improve their warehouse operations on an on-going basis.

In addition to DWIS, ABC offered LTPs attractive sales-related incentives under a dealers' monthly incentives scheme (DMIS). These included sales target achievement incentives, discounts and allowances. For instance, LTPs were entitled to input and throughput sales if they met a certain level of sales. On top of that, to encourage large orders, orders made in full pallets (not in loose boxes<sup>26</sup>), were entitled to a palletized discount. LTPs were also given distribution allowances to offset distribution costs when they sent ABC's products to their customers, and they were allowed to return damaged<sup>27</sup> or expired products.

One sales branch manager commented that the incentives system was to motivate LTPs to continue their business with them:

That [the incentives] motivates them. That means a lot of people want to become ABC's dealer. They have been with us for three generations and these people have been progressing

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<sup>26</sup> It took longer for warehouse shop floor staff to complete picking when the orders were made in loose boxes as this required a manual picking process. ABC therefore offered incentives to encourage them to buy in pallets because palletized orders could be completed more easily and quickly with forklifts.

<sup>27</sup> Product return, or market return, to ABC, i.e. physically damaged and expired stock, was accepted by ABC at no cost.

very well [...] All they need to do is good service and the business will come. That's how we encourage them.

Sales Manager, Branch A, ABC

LTPs relied on ABC to achieve their business growth, and *consistency* was therefore evident, as reflected through the monetary assistance (as well as non-monetary support represented by, e.g. technical advice) and the set of control measures such as KPIs. An account executive for LTPs' account management stated:

That [the incentives] is the way we take care of them. That's why they have been with us for so many years. Now their kids are taking over the business. Some of them are actually 100% with ABC business. They do not sell other products.

Account Executive, Sales Branch A, ABC

ABC perceived that the market share of its LTPs would be less significant than the growth of their sales values, which was more important to them. The managing director of one LTP shared the same concern and acknowledged that they had indeed been expanding their business with ABC and that there were more opportunities:

So we have been growing with ABC at quite a good rate, so over the long term, ABC has been taking care of the growth rate. We have been growing year after year. Not only in terms of dollar value but also in term of volume. So even within ABC, there is room for expansion [...]. The traditional trade in Malaysia is strong.

Managing Director, LTP B

The LTPs customized their service mainly in order to handle ABC's product distribution. Although some large LTPs had also been selling other products, this was only at a very small percentage and none of these were competitors' products.

This chapter has so far described the integration of the supply chain between ABC and its LTPs. In this section, I describe how the *consistency* between the control measures - through the shared PIs - and the incentives schemes linked to the performance measures, gave shared growth to both LTPs and to ABC itself. The shared KPIs provided the basis for joint activities, thus exhibiting *collective wide-action*, and these became important avenues for the integration of ABC with its LTPs.

While these incentives were aimed to encourage LTPs to develop and maintain good warehouse practice according to ABC's own warehouse best practice, there was also evidence that ABC used LTPs' warehouses to fill the pipeline with its goods at the LTPs' expense, as shown in the next section. Indeed, it also attempted the same with the IKAs, although this was against IKAs' inventory reduction policy. In a sense, ABC took advantage of the LTP's lack of experience. The integrated scenario may contain seeds of further conflict due to the domination of one partner.

The following sub-section illustrates the sources of conflicts and disagreement between ABC and its customers.

#### **6.5. Differentiation perspective: conflicts and disagreement over key performance indicators between ABC and its customers (IKAs and LTPs)**

While there were widely shared concerns over the achievement of main KPI, i.e. sales target between ABC and LTPs, there appeared to be differentiated interpretations

with regards to the supporting KPIs between the functional divisions within ABC and also between ABC and its customers. As stated earlier, ABC's business relationship with IKAs could be described as being arm's length, with on-going negotiation in terms of business requirements. They became popular as shopping destinations around the year 2000, when manufacturers were competing to fill shelf space at their stores. Some IKAs introduced their own private label brand. However, acceptance by Malaysian consumers' for private label brands<sup>28</sup> at that time was still in its infancy, although there was an indication that the sales of private brands had started to increase, especially during the economic downturn. Brands by established manufacturers were a significant influence in the manufacturer-customer relationship. Many of ABC's brands gained considerable popularity among the majority of IKAs and they were used by IKAs as promotional items to attract customers to stores.

***Conflicts between ABC and IKAs: Disagreement over the achievement of On Shelf Availability, Stockholding and distribution cost allocation measures***

ABC and IKAs differed in their views on stockholding and on shelf availability at each retail store. Retailer A preferred minimal stockholding to reduce costs tied up with the inventory. In addition, on shelf availability was important to ensure that

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<sup>28</sup> A survey on private label sales development in Malaysia conducted by the Nielson Company reported its findings on 5 December 2008 (two months before the present study's fieldwork). See more at <http://my.nielsen.com/news/20081205.shtml>

products were available to their customers. Although ABC supported the IKAs' on shelf availability measure since it drove their sales, interpretation differed. The IKAs were concerned that ABC products in high demand should be available on shelf in order to attract customers to their store whenever such products were on promotion. On the other hand, ABC sought to include on shelf as many product categories as possible to foster long term product growth. While they focused "availability" on high demand products, they also attempted to fill IKAs' shelves with new products; IKAs' on shelf availability measure therefore supported the achievement of their sales target but was inconsistent with minimization of stockholding, as highlighted by retailer A:

I think [ABC], as I said earlier on, are more interested in availability because that what drives sales. So, they invest a lot, are very understanding and very close in terms of availability, but less probably on stock-holding. Their internal measure is a monthly sales target, so the marketing people would seek to get [retailer A] to buy the stock ahead of when they need it if they want to achieve the target. This is because to [ABC], they achieved it when they sold to [retailer A]. And therefore [ABC] wants to achieve their target. But the short term target is that [retailer A] has bought it, not [retailer A] sold it. So, you know, this is constantly the point of competition, the point of conflict, which is stockholding versus availability. But, you know - is it a big issue with ABC? No, it isn't.

Procurement Manager, Retailer A

The procurement manager shared further views regarding ABC's inconsistencies towards their stockholding requirement:

The challenge within this is because a supplier does not invest as much in our KPIs, our measures of success. One of the big ones in supply chain is stock holding; we continuously task to carry less and less on stock holding. But of course ABC doesn't really care quite as much as we do about having too much stock in our distribution centre.

Procurement Manager, Retailer A

Such disagreement was indeed acknowledged by one of ABC's planning manager, who explained that the current sales forecast and planning model at ABC was based on replenishment of trade customers (LTPs and IKAs) rather than on the end customers' needs. As a result, the sales staff, whose performance was measured on the basis of sales achievement, competed for placing as large an order as possible with IKAs or LTPs:

Our current forecast is, stock must be there. We see how much LTPs or [IKAs] put in, in terms of their orders, but for [IKAs] their input is equal to throughput. So our demand planning is actually here [pointing to LTPs and IKAs]; we called it consensus demand planning, CDP, this point. The future that we are planning, we actually want to move from this point [trade customers] to here [shoppers], then you just have to replenish. [...] Now our forecast is based on our customers [IKAs and LTPs].

Demand and Supply Planning Manager,  
Food and Beverages Business Unit, ABC

Although ABC was targeting to achieve its brand availability through as many sales as possible, some highly popular products were limited in supply, leading to further contradictions between ABC and its network of customers. For ABC, it was essential to maintain on shelf visibility of products in high demand in order to avoid a complete out of stock situation at any particular store, but not to the extent of overloading the market with the same products or brands. Long term brand management was particularly important to ABC. Moreover, it was also vital to avoid CSL failure for the products that were in an out of stock situation.

The differentiation of supply chain relationship within ABC and IKAs was also marked by the way in which the distribution allowance was structured. With the direct distribution process with IKAs, more efficient distribution initiatives were completed - for example, a few IKAs gradually implemented cross-docking distribution. The basic idea underlying centralized distribution was that ABC should deliver full trucks to the IKAs' distribution centres. By combining various suppliers, IKAs then delivered a full truck to each of their stores, but with a mix of products from various suppliers. In this way, ABC could benefit not only in terms of cost savings, but could also avoid the complexity of delivering to stores that were busy, making it difficult for ABC to arrange deliveries themselves. Moreover, some stores might have a full truck load while others did not.

Retailer A first set up the cross-docking distribution centre and several other IKAs also became convinced to at least have their own central distribution warehouse. At the time of this study, retailers A and B established their own distribution centre to be used as a cross-docking centre; retailer C also had their own distribution centre, but used this mainly as a warehouse in which to keep stock; retailer D maintained a small amount of stock at each retail outlet<sup>29</sup>. The cross-docking distribution process resulted in large efficiency gains for ABC as it could avoid the number of deliveries

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<sup>29</sup>Their orders were normally in loose boxes unlike those of most other IKAs, who mainly ordered in large quantities; this resulted in inefficiency at ABC's warehouse.

from one site (ABC's distribution centre) to many (retailers' stores throughout the country).

To compensate for the re-distribution activities, ABC and IKAs agreed a distribution allowance. At the time of this study, this was allocated on the basis of turnover, which ignored the distribution volume undertaken by each IKA. A commercial manager indicated that such a distribution allocation method was inappropriate for cost allocation:

But the thing is our distribution allowance is not so detailed yet. Because of the distribution allowance, the allocation key is still based on turnover, which is not right in the sense that, like [retailer B], they have the most efficient warehouse; whereby we send, they re-distribute to the outlet. Like [retailer D], they are different: we have arranged [their orders] by outlet, they just change the lorry, to a certain degree. Thus, we should be charging more distribution cost to [retailer D], but we don't. We are still based on turnover.

Commercial Manager, ABC

Similarly, a procurement manager of Retailer A also shared the same concern that the current distribution allowance structure did not reflect correct measurement and was perceived as a deterrent to close collaboration in terms of improving the total cost efficiency for the supply chain. At the time of study, both parties agreed to separate front (i.e. sales margin) and back margins (e.g. distribution allowance). With separate distribution calculation, each party could see how much cost involved to send the stock from one distribution centre to another. In other words, such margin negotiation was carried out to justify to both parties the rationale for having cross-docking distribution:

For as long as they can see that we can do it cheaper than them, then everyone is happy. That's why you keep visibility around the number and that's the logic of it. If you get a lot of people in a



room, they all have different views as to the right ways of doing it. [...] But we probably don't collaborate enough over supply chain distribution cost and how working together could save money.

Procurement Manager, Retailer A

He acknowledged that both parties could have improved the distribution cost allocation by re-structuring the margin calculation in order to improve the overall supply chain:

In terms of their production cost, production planning, distribution cost, we are not aware. It will be too strong to say we don't care, but we are not aware because [ABC] chooses not to share that information with us. There is definitely an argument that says that if they invited us as a sub-supply chain, then there would be money that we could take for them by working together. But, in a way, we're not opening the door to them till they open their door to us. Now, my view is that it is much more about, one: we haven't pushed, and two: they don't think that we are interested and we are about to help. But true collaboration in the supply chain is that you go both ways. But at the moment we are not moving up the supply chain yet.

Procurement Manager, Retailer A

Both parties acknowledged that more cost-efficient distribution could therefore be achieved through cost transparency and through restructuring the margin negotiation between them. They were aware that distribution collaboration should be improved. However, it was unclear to what extent both parties would further collaborate and negotiate as they had their own priorities. Until the end of the fieldwork, no such collaboration took place.

***Functional conflicts within ABC: Head office management (business units divisions and supply chain division) vs. sales operational management.***

Two prominent groups within ABC had conflicting objectives. The first group consisted of head office management – business units and supply chain divisions -

while the second comprised ABC's sales management and its customers, the IKAs and LTPs. When the IKAs and LTPs sought mainly to purchase products that were in high demand, ABC's sales team supported this as it was consistent with their KPIs (sales target). On the other hand, ABC's business units aimed to achieve a balanced product category growth, thereby conflicting with the aims of its customers. In order to control product distribution among channels, a product allocation system was in place. This form of control was consistent with the supply chain division, the performance of which was based on CSL in order to assist the order fulfilment process. The orders that did not follow the allocation quantity provided by the business units would not be considered as part of the CSL calculation. When asked about the issue of order quantity beyond the allocated amount, one staff member commented that she "would not feel bad about this" because this would not be reflected in CSL.

One sales branch manager, who worked closely with LTPs, challenged the CSL performance of the supply chain division, as it involved order filtration:

The CSL that head office use right now is based on the filtered meaning. We were asked not to key in the product that we know that is out of stock or that had no supplies in the month. The real CSL, you don't have to tell us what to key in or which one not to key in. We key in what we want, as we wish to order the real CSL, the filtered one can be 95% but the real one may be only 70%.

Manager, Sales Branch A, ABC

The manager did not consider the KPIs as "fully reflective" of the head office's performance (Siti-Nabiha and Scapen, 2005, p. 57). The manager felt that the CSL

measurement did not reflect actual customer service fulfilment since LTPs' orders could only be processed further if the quantity ordered met the allocation list; those orders exceeding allocation were requested to be cancelled and might be re-ordered later when the quantity was available. This process thus affected the motivation of sales staff to maximize sales revenue.

While this replenishment process could easily be achieved with LTPs, most IKAs were reluctant to simply accept stock allocation from ABC. They would normally order as much as they wanted of their preferred products. Indeed, ABC tried to accommodate IKAs' product demand requirement. The central return warehouse manager, who had previously worked with the factory, shared his disagreement with last minute changes in production planning in order to incorporate IKAs at the very last minute:

The rule [planning best practices] said: 'This is a firm [planning] horizon, so cannot be changed'. But they [the head office] still want to change. At that point in time, there were so many reasons and usually the reasons were acceptable. So we have to change especially when they said: 'For business reasons'.

Central Return Warehouse Manager,  
Supply Chain Division, ABC

The dynamics of customer operation thus resulted in inefficiency in the planning process. A response to a last minute promotional plan proposed by customers added to the stock out problem at ABC, a situation that was acknowledged by one retailer:

For promotion, they [the supplier] plan for three months ahead to get the item in the list. Within that timing and before the first display catalogue, they must ensure the stock is already in store. But it's not easy to plan the promotion too. You must confirm the item list and the

stock available at the supplier site. We do have some last minute changes in the items. So definitely, when we make changes, the items would be out of stock.

Supply Chain Collaboration Manager, Retailer B

Commenting further on the issue of changes in the production plan, the warehouse manager also claimed that these could sometimes result in the waste of raw materials at the factory, as well as create conflicts between factory and head office:

So one little change there [at the factory], those people [the head office] don't see the effect. It has got a cascading effect, like a snowball. When it's about time to produce, things [raw materials] cannot be used any more. You order for nothing. But it is upsetting. People forgot [after the changes] what the real cause was. It's always happening at the factory. People at the factory always get upset with the last minute changes. But all these are hidden. If you never work in the factory, you will not see. If you work at head office, you don't want to hear this story. So it will cause an OOS situation. When there was OOS, people normally pointed their finger to production: 'You never produce enough.' But they didn't realize that they also contribute to the problem.

Central Return Warehouse Manager,  
Supply Chain Division, ABC

I have so far highlighted the differentiation identity of supply chain by highlighting the conflict within two groups, first in terms of the different interpretation between ABC vs. its customers (IKAs and LTPs) towards on shelf availability and stock holding policy and second, the conflict within ABC itself (the head office management vs. sales management). The ways in which the head office management's objectives sought to achieve long term product strategy and CSL conflicted with ABC's sales management (who supported LTPs' objectives). The differentiation of supply chain was thus marked by the conflicting attempts in which they achieved their performance measures.

The next section of this chapter describes the disagreement and competing attempts at domination thereby exhibiting fragmentation of the supply chain.

#### **6.6. Fragmentation perspective: irreconcilable supply chain tensions between ABC and IKAs**

As described in the previous section, ABC retained its influence in several aspects of the Malaysian market. Underpinned by strong brands, most IKAs had to rely on ABC's popular products to fill their shelves because the IKAs' private brand was still at an early stage of development. Moreover, ABC owned several of the most popular products in the market, so a complete discontinuation of ABC products might create greater losses for IKAs:

We [ABC Malaysia] are the best example in market [ABC worldwide]. In terms of beverage, we are the only market where Coke is not the number one, [product A] is. The same goes with breakfast cereal, the top in other markets is Kellogg's, but here we have [ABC] breakfast cereal. This is what differentiates us from other markets.

Commercial Controller, ABC

Furthermore, the influence of ABC as one of the leading food manufacturers was acknowledged by one of the IKAs, which is also one of the leading multinational retailers:

ABC is the one of the largest companies, and they have the big brands in Malaysia. Absolutely they do, the products that the customers [or consumers] most want are the products that we can't differentiate between us and the mom and pa shop [traditional local retailer].

Procurement Manager, Retailer A

While the dominance of retailers in the supply chain relationship is recognized, the present study also observed the dominating identity of ABC as manufacturer. There were irreconcilable tensions and contradictory priorities which resembled Martin's fragmentation perspective (2002). The presence of power imbalance created a fragmented scenario, marked in two areas: the level of service delivery requirements and the rationale for retail price setting. These are explained below.

### ***IKAs' exigent service delivery requirements***

Domination in the IKAs' relationships was reflected through the emphasis on KPIs, strict delivery requirements and control over allowance deductions<sup>30</sup>. Retailer A, for example, perceived its relationship with ABC as very important because ABC had strong brands that could be used as a strategy by the retailer to attract customers to its store, particularly through promotional activities. Retailer A therefore tried to ensure that its orders were actually delivered, as reflected through its focus on CSL:

Everybody wants to see this [the CSL report]. So if CSL is like 99%, so everybody is like happy [...] They closed the book. But if let's say [the CSL] is 60-70%, and then they start screaming, whatever. [...] I take, for example, one customer, [retailer A] as well as [retailer B]. One call from CEO over here to their CEO in UK will have a lot of effect on ABC business [worldwide]. So before that happens, we need to make sure that everything is ok over here, because it can happen, and it has happened already. Not here in the Malaysia market, but in France. The CEO [of headquarters] was very pissed off with ABC service in France. They [the retailer] just gave a call to [CEO's name] and he was very angry. So before that happens we need to really take care of the customers.

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<sup>30</sup> Deductions comprised of allowances that were agreed as per contract as well as on-going allowance negotiation such as promotional allowance and product return.

Customer Service Manager,  
Supply Chain Division, ABC

ABC needed to ensure good CSL achievement as this reflected not only their capability to meet the requirements of local customers but also the global expectation of their service. Indeed, one retailer did request daily reporting of CSL performance to both its head office in Malaysia and its main headquarters in the UK.

The manager further elaborated the high level of IKAs' service requirements, stating that there was no flexibility in terms of delivery timing and that penalty charges were imposed for delivery failure:

On time delivery for international accounts [IKAs], it's mandatory. Because international accounts [IKAs] are very particular in terms of our delivery, you not only deliver in full, meaning that, let's say they order 100, you deliver 100, but also when they said deliver at 6 a.m. on the 17<sup>th</sup>, they mean 6 a.m. on the 17<sup>th</sup>. It is not like distributors [LTPs], if you need to deliver on the 17<sup>th</sup> you have got the whole day to deliver, meaning that from 7 a.m. until evening you can deliver. [...] We need to pay a penalty if we deliver late and our service level will be affected. So there are a lot of reasons to deliver in full and on time.

Customer Service Manager,  
Supply Chain Division, ABC

While ABC sought to meet all deliveries, both for IKAs and LTPs last minute purchase order processing, based on the schedule, or a technical problem at ABC's warehouse, could cause a delay in the picking process. This was because IKAs' orders would normally be first to be processed and prepared for picking, followed by LTPs' orders. The delay in the IKAs' delivery would therefore lead to CSL failure to deliver both to IKAs and to LTPs. As a result, ABC's effort to fulfil the IKAs' requirements had to be made at the expense of LTPs.

As well as their focus on meeting the CSL requirement, most IKAs also placed emphasis on meeting the minimum stockholding policy at their retail stores (described in section 6.3.2). To achieve this, they would order only a minimal quantity, choosing the least quantity per pack available or requesting ABC to carry out re-packaging to meet their minimum order quantity:

Our project [for supply chain] relates to the stock situation at the store. We have to discuss with the supplier how they can help us in terms of reducing quantity per pack. So when the quantity per pack is reduced, the stock or inventory is also reduced. We don't want to receive loose items; maybe they have to do the re-packing again. Or maybe if they have 100 units [per carton], but with inner cartons of 10 units, we just take the inner carton 10 units, so we do not need to order 100. So we will take the lowest possible quantity per pack they have. So if they only have 100 units per carton, then maybe we have to ask them to re-pack.

Supply Chain Collaboration Manager, Retailer B

There were also IKAs that had control over allowance deductions prior to ABC's confirmation on the actual amount of allowances:

For them [IKAs], in terms of account receivables, it's already challenging, because they deduct us first [the allowances] from our payment. If they owe us ten million, say they run a promotion for us and are entitled to two million, so they deduct [upfront]. So we spend time reconciling. For the branch, the distributor [LTPs] will wait for us.

Commercial Controller, ABC

This meant that the allowances were pre-deducted prior to ABC's confirmation and it therefore ultimately had to spend a considerable amount of time in reconciling sales and allowances. As the supply chain controller comments: "IKAs have more shouts".

These instances describe IKAs' domination over ABC and demonstrate how supply chain accounting and control measures helped to strengthen their dominant identity.



Next, the chapter illustrates ABC's domination over IKAs as evidenced in its pricing policy.

### *ABC's influence in its pricing policy*

While IKAs dominated their suppliers in many areas, ABC countered this domination in order to protect its own interests. This was particularly evident when LTPs complained to ABC with regard to IKAs' pricing for some ABC products. Large price reductions at IKAs' stores would affect the NKAs that normally bought from LTPs. One LTP acknowledged its dependency on ABC to regulate the pricing competition among IKAs:

Sometimes they [IKAs] throw prices. They sell very cheap, then we've got to tell [ABC]: "can you do something because they are taking away our customers?"[...] it's something only [ABC] can help us with because [ABC] is our principal and [ABC] also supplies to them. So, ABC can influence them [IKAs], we can't do much.

Managing Director, LTP A

A price restriction, known as "the diamond pricing rule", was then made applicable to all IKAs. This was created when LTPs repeatedly highlighted the loss leader strategy and encroachment issues to ABC - the under-priced offer from IKAs further added to the instability of LTPs when runners would also buy ABC's products from them. IKAs' under-pricing of some ABC products was obvious. During a customer review meeting, a member of staff showed a photo showing a very cheap price tag displayed at one of the IKAs.

Retailer A expressed its dissatisfaction towards such a pricing rule as this was mainly introduced to protect the LTPs; ABC was perceived as failing to collaborate in terms of pricing policy:

The problem they have is, if we go very cheap on their products, it's cheaper to come to [retailer A] and buy our products than is to buy from [LTPs]. That is basically why ABC set the floor price. [...] They tell us that we cannot sell the product below a certain price. As far as we're concerned, this does not protect our customers, we believe that it's much more to protect the wholesale part of the market [the LTPs] [...] Should we want to make a loss on that line, to encourage customers to come to our store rather than [retailer B], that's our choice. But on ABC's products we can't do that, because if we do, they stop supplying the product for one month. [...] If you have the same conversation with commercial guys, they probably wouldn't feel as positive about ABC as they did a year ago because things have changed and ABC has made the trading more difficult for us.

Procurement Manager, Retailer A

The floor pricing rule thus symbolized ABC's concern about the stability of the LTPs' network as a result of price competition among IKAs. In fact, ABC ceased to supply to retailer A on one occasion when they were selling below the floor price. In view of this, a procurement manager further commented:

The floor price has reduced some of the trust. This is definitely something [ABC] did and we fundamentally disagreed. ABC is not doing it in other markets. We are in fourteen different countries and they are only doing it in one country, which is Malaysia, you know. So in other countries we sell whatever price we want, but they [ABC] don't stop the supply. So that's really a problem for our model and [ABC] is not helping so much...

Procurement Manager, Retailer A

ABC's domination was also acknowledged by a member of ABC's staff when he asserted that IKAs depended on its products to fill their stores' shelves, even if there was an increase in price:

All customers can't afford not to sell our products. If they stop selling, 30% of their shelves will be empty. You look at the eye spot, how much [product A] they have. All in the line. So you can't afford it. That's why if there is a price increase, it is easy. We are too big, it's easy

to manage. They can complain but not to the extent that they won't be selling. They can't afford to do that. It will be suicidal for them to do that.

Commercial Manager, ABC

The pricing rule was created as an attempt to regulate competition among its customers. Nevertheless, ABC reminded LTPs to put more effort into achieving sales as competition was unavoidable. I attended a meeting between a sales branch manager and an LTP, where the branch manager commented:

For me, it's a phenomenon, between branches, between countries. It doesn't mean we want to condemn this thing. [...] How do we protect? I can say we can give another discount, for example, but the IKAs would continue to give further discounts. The challenge is: for runners, it's a way of life for them. They will survive, like water; you hold here, they will go there. Smuggling is a way of life for people. Therefore, what we can do, at best, is to protect our business.

Sales Manager, Branch A, ABC

In response to the concern expressed by the LTP about this issue, the manager asked them to provide proper evidence in order that ABC could take further action; however, he also advised them to concentrate on what could be done to encourage the customers, i.e. the NKAs, who bought from runners or IKAs. For example, they could offer further discounts or extend the credit period. He also kept reminding them to anticipate further problems. Talking to several staff about the runners' operation revealed that they sometimes were silent about this practice because they were more concerned about keeping the stock moving, particularly when sales closed towards the end of the month.

This might be regarded as a response to countering the retailers' domination; the strategic priority had to be directed at the forefront of daily operation and thus the achievement of a balanced performance. As stated earlier, ABC and the IKAs were still inexperienced in collaboration; co-operation over distribution cost, for example, was still developing.

## **6.7. Discussion**

One of the key features of the supply chain relationship consists of organizations having to position themselves within the networks. Drawing on forty-six interviews carried out with one multinational food manufacturer, as well conducting several observations of the interaction between the manufacturer and its customers, I have investigated the supply chain identity - in terms of how the supply chain members view their relationship - through their uses of supply chain accounting. The study describes the endeavours of the supply chain members to introduce collaboration initiatives and the ways in which supply chain accounting can help to support their effort. It suggests that the supply chain relationship could be characterized as integrated, differentiated and fragmented, and that supply chain accounting and controls help to mobilize its symbolic significance.

The context of the manufacturer-retailer relationship in this study was common to any business network: the manufacturer had its own agenda to develop and maintain on shelf availability of a wide range of products, while retailers were concerned with

maximizing profitability and so made continuous use of their bargaining power. However, the manufacturer's strong network of dealers provided it with the further advantage, as the focal firm, of managing the network. Even though the organizational members were unaware of identity issues, it was evident that people from different companies were working for one network of the supply chain, albeit in different ways.

The first part of the chapter describes the integration of the relationship between ABC and its LTPs. As the lead firm, ABC used both accounting and controls to gain increased collaboration with LTPs. There were *consistent* and *mutually reinforced* sets of control measures, observed through the use of shared KPIs and incentives schemes, and these were perceived by both parties as a means to attain shared growth. The KPIs were used to boost their sales and thus expand their market share. In return, LTPs agreed the shared KPIs and DWIS requirements in order to achieve operational efficiency and financial advantage (through incentives and rewards) so that more long term growth could be realized. Their dependency on ABC's capability and economic advantage in terms of resources such as incentives, advice and support, further enhanced their commitment. The shared KPIs also served as a basis for joint activities and that *united* both parties. Indeed, LTPs felt a sense of identification with the network. The *collective-wide action* was evident when the daily presence of the ABC sales teams at LTPs fostered regular interaction between the two parties and encouraged joint sales management. In summary, the collaboration between ABC and

LTPs through the use of supply chain accounting and controls reflected the *unity, consistency and collective-wide action*, and thus exhibited integration of the supply chain identity.

The second part of the findings illustrates the differentiated views arising from supply chain collaboration between ABC and its network of customers. Differentiation in this study refers in particular to ABC's *inconsistent* interpretation of customer KPIs and this can be observed from two conflicting groups: ABC with its customers, and also within ABC's functional divisions. As discussed from the integration perspective, ABC consistently developed LTPs' warehouses through an attractive incentives scheme, but it was also observed that it used these warehouses to fill the pipeline with its goods. The principal-agent relationship was marked by the use of power, i.e. to use LTPs for its own agenda. This in turn led to further conflicts and contradictions. While the stock replenishment process was easily agreed with LTPs, such practice contradicted LTPs' stock cover policy. Indeed, ABC did attempt to influence IKAs' stock replenishment policy in the same way as it had done with LTPs, but this was against the on shelf availability and stockholding policy at IKAs. For IKAs, their on shelf availability target aimed at ensuring product availability and thus at attracting customer visits to their stores, particularly for ABC's products in high demand. On the other hand, ABC sought to achieve long term and balanced product growth, and therefore attempted to fill IKAs' shelves with as many product categories as possible rather than flood the market with specific products.

Within ABC, there were conflicting attempts towards the achievement of KPIs. A product allocation system was in place in order to control distribution of high demand products. Such a practice actually created internal conflict between ABC's sales management and its head office (the business units and supply chain division whose KPIs were consistent). The conflict arose as a result of order filtration by the supply chain order processing team who only fulfilled the order quantity that met the allocation quantity from the business units. This meant that LTPs (who worked closely with ABC's sales team to achieve sales target) would not necessarily acquire the products that they sought. Instead, they would have to accept whatever product that was available, with the hope of making aggressive sales later and of receiving other types of incentive.

The third part of the chapter describes the fragmentation of the supply chain relationship between ABC and IKAs. Martin (1992) characterizes fragmentation of culture as having complexity, multiplicity and flux. In this study, the presence of power imbalance created a fragmented scenario marked in three areas: the rationale for retail price setting and the level of service delivery requirements. The dominant identity of IKAs, bringing with it a global reputation, was evident in high and demanding service level requirements such as strict compliance to CSL achievement, special packaging, a penalty for delivery failure and frequent delivery reporting. This domination contradicted ABC's priorities, including special packaging or small order

quantities, and occurred at the expense of LTPs, causing, for example, delays in order picking for IKAs, which in turn resulted in late delivery to LTPs. On the other hand, there was an indication that ABC itself played a dominant role. The company's influence over retail pricing among customers, such as increasing purchase prices or setting a minimum retail price, reflected its dominant identity. The competing influences at domination created an ambiguous identity; it was unclear which party was dominant in the relationship, and this exhibited fragmentation of the supply chain. Martin acknowledges such multiplicities where:

[c]ultural members sometimes change their views from moment to moment as new issues come into focus, different people and tasks become salient and new information becomes available. Group identities (such as gender, race, or job classification) do not form stable subcultures in a fragmentation studies. Instead, multiple interpretation and reaction is always possible. (1992, p. 150-151)

As shown in the differentiation perspective in this study, there were clear differences between the two groups - retailer and manufacturer. As the manufacturer, ABC set a strategy to achieve long term brand management and thus to balance the presence of product variety in the market through its product allocation system. On the other hand, as retailers, IKAs had their own priorities which contradicted those of ABC. They were reluctant to follow ABC's product allocation system for replenishing their stock as they had their own demand forecasting system. Such differences, however, do not "form a stable consensus", as Martin suggests, since the dominant group may become dominating and vice versa.



The fragmentation perspective focuses on “mixed attributes that fall in between polar opposites” (Martin, 1992, p. 136), such as those between the dominant and dominated groups, that allow the understanding of the dominating actor’s reactions to the dominated (ABC’s effort to protect its relationship with LTPs) as well as the variations between them (the competing attempts to dominate the supply chain relationship between ABC and IKAs).

So far in the inter-firm accounting literature, identity has been observed as the result of various supply chain and accounting practices. The use of accounting in an outsourcing relationship created a new identity for the buying firm (Mouritsen et al., 2001; Chua and Mahama, 2007). In contrast, the present study seeks to outline how identity can also be more central to organizational efforts at making supply chains work in particular ways, supported by accounting. In this sense, identity can be seen both as an organizational and a managerial resource whose deployment relies on important methods of accounting.

## **6.8. Conclusion**

Firms become involved in supply chain collaboration with varying degrees of interest. This chapter describes the application of Martin’s perspective framework (1992) for the analysis of supply chain identity. It provides an understanding of the complexities of the supply chain where a network comprising several inter-firm relations can be seen to enact multiple identities. The study recognized the co-

presence of integration, differentiation and fragmentation of supply chain identities, portrayed through supply chain accounting uses.

The strategic structuring of inter-firm relationships is rooted in the ability of the lead firm to create an integrated identity through the use of supply chain accounting and controls. The lead firm - in this case, ABC - mobilized *collective-wide action* through *mutually reinforced* sets of control measures that strengthened network identity. Shared KPIs and attractive incentives strongly united the relationship between ABC and LTPs towards achieving common goals and objectives. The supply chain accounting is viewed in terms of unity and consistency, thereby demonstrating integration of the supply chain identity.

The study of supply chain accounting uses among ABC sales management has found that they were employed within a differentiation perspective. That is, supply chain accounting and controls were used inconsistently and were characterized as having contradiction. Fragmentation of the supply chain identity perspective is reflected through supply chain accounting uses. That is, the presence of large retailers such as IKAs gave rise to the issue of dominance in the relationship between ABC and its LTPs. Each dominant actor attempted to influence the supply chain relationship. While IKAs were more concerned with their own business, ABC also exerted a high level of influence in their relationship.

To summarize, the study provides insights into the ways in which accounting and controls were used in the process of managing supply chain from identity perspectives. In this way, I seek to advance the understanding of how supply chain accounting and control practices are interpreted from identity perspectives. Supply chain accounting and controls are subject to interpretation and meanings which emerge clearly in the ways in which they are used. The use of Martin's three diverse perspectives to study supply chain identity supports exploration of the complex nature of supply chain accounting uses. The study concludes that the supply chain network is complex and can be characterized as having multiple identities: integration, differentiation and fragmentation; these identities can be ascribed to the ways in which accounting and controls are used by different supply chain members within various relationships in order to achieve diverse objectives.

## CHAPTER 7

### Understanding Supply Chain Management: The Roles of Accounting and Controls in Action

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The significances attached to accounting have been shown in the process of their reformulation. The craft has been seen as becoming embedded in different organisational configurations and serving very different organisational functions in the process of its change. The mobilising vehicles for these changes have been seen as residing in a very diverse number of organisational processes and practices and, not least, in accounting itself.

(Hopwood, 1987, p. 231)

#### 7.1. Introduction

The call for research “on trying to study accounting in which it operates” (Hopwood, 1983) has raised a series of inquiries into the ways in which accounting is being practised. It is imperative to distinguish between an understanding of the technical features of accounting and of the uses of accounting. The studying of “accounting in action” provides an understanding of complex functioning of accounting and illuminates wider significance for both intended and unintended consequences.

This study examined the constitution of supply chain accounting through ethnographic research of one manufacturer and its relationship with its network of customers: retailers and dealers. The context of the manufacturer-retailer relationship in this study is common to any business network: the manufacturer has its own agenda to develop and maintain on-shelf availability of a wide range of products, while retailers are concerned with maximising profitability and so make continual use

of their bargaining power. However, the manufacturer has a strong network of dealers in which inter-dependence exists. The manufacturer therefore has, to a certain extent, a further advantage, and can be regarded as the focal firm to manage the network. From the study, it is evident that people from different companies are working for a single network of the supply chain, albeit in a variety of ways.

My thesis poses a general research question: how are accounting and controls implicated in the supply chain relationship? In trying to answer the question, several specific questions are addressed:

1. How do coercive and enabling performance measures co-exist in supply chains?
2. How does OBA influence an enabling orientation of supply chain management?
3. How do supply chain accounting and controls influence supply chain identity?

The thesis findings are discussed within three main themes:

- An overlapping perspective of coercive and enabling approaches is proposed in arriving at an understanding of the uses of accounting in supply chain management.
- Enabling uses of open-book accounting are offered in understanding supply chain management

- Multiple perspectives of supply chain identities are suggested in understanding the uses of accounting in supply chain management

This chapter aims to combine the key findings of this thesis. My intent is to draw attention to diverse bodies of literature that can illuminate the complex issues of accounting in the supply chain and which, it is hoped, will therefore stimulate further research.

The remainder of the chapter is organised as follows: section 7.2 provides a summary of the research findings and their major conclusions; section 7.3 presents the contribution of the study; section 7.4 discusses the limitations of the research section; and section 7.5 suggests a direction for future research. The final section provides some concluding comments.

## **7.2. Summary of findings and major conclusions**

The debates surrounding the role of accounting within an inter-firm setting revolve around the different forms of control design for the inter-firm setting by focusing on its features, but rarely by addressing its uses, particularly within operational management. The thesis has sought to examine critically the ways in which accounting and control influence the process of managing the manufacturer-customers relationship. In doing so, the study has focused on several features of

accounting and control, including performance measures and open-book accounting and their link to the issue of supply chain operational management.

First, I have argued in Chapter 4 that supply chain accounting uses can simultaneously exhibit enabling and coercive orientation. The concepts of enabling and coercive approaches to supply chain accounting discussed by Free (2007), as adapted from Ahrens and Chapman (2004), help to frame an understanding of the ways in which accounting and controls are being used in inter-organisational contexts. While Ahrens and Chapman (2004) outline the simultaneous uses of coercive and enabling orientation within organisations, my study suggests coercive and enabling controls can co-exist in a supply chain relationship. Supply chain accounting and controls are coercive when they are used to create opportunity for controls; they are enabling when supply chain partners use the supply chain and controls to create opportunities for improvement as well as shared growth. In addition, while explaining in detail the ways in which managers and operational employees use the supply chain accounting and controls to which they were subjected, the study has attempted to highlight the implications of such co-existence: the simultaneous uses of enabling and coercive orientation produce dynamic tension that is unintended, while the flexibility element of enabling controls in managing customers becomes exploitative, fostering defensive behaviour at the operational level.

Chapter 4 highlights the implication of one element of enabling PMS; Chapter 5 articulates another element of an enabling system, namely, transparency, through the practice of open-book accounting (OBA). The chapter demonstrates how the placement of the manufacturer's staff at the customer's operational site resembles a liaison position, as discussed in Abernethy and Lillis (1995), and helps to foster transparency, in turn enabling the practice of OBA. The characteristics of the four enabling uses embedded in the practice of OBA are highlighted, and the ways in which liaison's roles intertwine with the practice of open-book accounting - thus enabling orientation of the supply chain - are discussed. In particular, the placement of liaison at the customer's site enables the understanding of local knowledge, thus enhancing transparency. Such capability thereby helps the supply chain members to achieve efficiency and flexibility in managing the supply chain.

Chapter 6 describes the manner in which accounting and control systems are implicated in supply chain identity phenomena. Drawing on Martin's concepts of culture— *integration, differentiation and fragmentation* (2002), the chapter illustrates the multiple conceptions of identities in the supply chain, as reflected in the ways in which supply chain accounting and controls are used. The study found that accounting can be shown to portray mixed identities of the supply chain, namely integration, differentiation and fragmentation. The uses of supply chain accounting and controls are expressive of traits such as *unity, consistency* and *collective-wide action*, thus fostering integration of the supply chain. At the same time, the



differentiation perspective of identity is evident when there are conflicts and disagreement between a manufacturer and its network of customers, as well as conflicts between different functional divisions within a manufacturer. Fragmentation of supply chain is observed when supply chain accounting and controls are used to portray competition and domination (between dominating and dominated partner).

Within these findings, the functioning of accounting in managing the supply chain depends primarily in the context in which it operates, as addressed by Hopwood (1983). The quest for studying accounting in action involves an understanding of the meanings assigned to accounting. The next section elaborates the contributions of the study.

### **7.3. Contribution of the study**

The major contribution of this study is to provide understanding of the role of accounting in action, specifically within an inter-firm context, and this is evident in three aspects: supply chain accounting and controls can be drawn on in both coercive and enabling ways; the enabling uses of open-book accounting can help to foster efficiency and flexibility of supply chain; and the uses of supply chain accounting and controls can portray multiple identities of the supply chain. These features are further explained below.

### **7.3.1. The “simultaneous uses” of coercive and enabling supply chain accounting and controls**

First, the study adds to the inter-firm accounting literature by demonstrating the ways in which supply chain accounting and controls are used in a supply chain. Most inter-firm accounting studies have focused on the uses of supply chain accounting and controls within the confines of contingency research, deriving their functions from a distance and reducing the supply chain complexity to a simplified model (Mouritsen and Thrane, 2006). On the other hand, my study examines supply chain performance measures in the context in which they are being used, therefore providing an understanding of the meanings assigned to them by the supply chain members. Free (2007) asserts that “[t]he functioning of accounting within supply chain is complex and dynamic, and that in different contexts is infused with different purpose and meanings” (p. 923). The network of a supply chain consists of multiple actors, different types of relationship and various activities that influence the operation of supply chain accounting (Chua and Mahama, 2007).

My study further contributes to inter-firm accounting research by explaining the ways in which supply chain accounting and controls can be drawn on. While Free (2007) studied the uses of supply chain accounting and controls in two dyads of different supply chains and showed that they could be drawn on either in enabling or in coercive ways (respectively), my study has investigated two dyads of the same network of supply chain, and demonstrates that they can be used in both coercive and

enabling ways (in both dyads of the same supply chain network). Enabling uses of accounting and controls provide “opportunities for learning and jointly expanding category sales, while coercive uses of accounting lead to one organisation more aggressively seeking to appropriate profit from the other” (Free, 2007, p. 923). In addition, while such overlapping approaches (i.e. the mixed uses of coercive and enabling controls) have been observed in the field study of a restaurant chain conducted by Ahrens and Chapman (2004), involving relationships between head office and several divisions, my study illustrates the existence of coercive and enabling uses of accounting and controls across organisations, involving relationships between manufacturer and customers.

My study extends that of Ahrens and Chapman (2004) by discussing the implication of the simultaneous presence of coercive and enabling orientation. Adler and Borys (1996) suggest that in order “to preserve and augment their enabling or coercive potential, they need to be implemented in different organisational contexts” (p.77). In other words, coercive and enabling potentials (their intended consequences) may be best realised when one is substituted for the other. Indeed, when trying to distinguish coercive and enabling supply chain accounting, Free (2007) advises looking for their predominant features, since “some elements [might run] counter to the dominant orientation” (p. 923). Applying the concepts of coercive and enabling approaches to a long-term supply chain context exhibits complex findings. When an enabling approach to control co-exists with coercion, it is rather difficult to realise the intended

consequences of enabling. This study observed that there were unintended consequences. The intended effect of the enabling use of control is to foster efficiency (Ahrens and Chapman, 2004), through exploration in which flexibility is important (Free, 2007). However, flexibility could also run counter to enabling orientation where it leads to manipulation or exploitation, therefore sustaining coercive orientation. In my study, flexibility leads to exploration of sales, but it also leads to manipulation in ways that favour short-term gains in one area of the supply chain and undermine efficiency (for example, in planning) in others, therefore exhibiting defensive behaviour. Such flexibility, a feature of enabling, paves the way to exploitation of the enabling system.

It is unclear to what extent one should consider the trade-offs between short-term and long-term efficiency. The purpose of having enabling systems is, overall, to make repair possible. This repair is defined as a system-improving feature, or efficiency gain. It might also imply the pursuit of some longer-term improvement that may not be evident in immediate efficiency gains. Flexibility should therefore allow the organisation to make progress, either in the short- or long-term, or both.

As described in chapter 4 in this study, it could be argued that inefficiency in planning might only be in the short-term, and presumably in the long run it should lead to improvements such as customer retention, thus possibly ensuring that the organisation like ABC stays competitive and gains a long-term market share. This is

due to the nature of the network within ABC's supply chain, where the customers (IKAs and LTPs) are not realistically "removable" from ABC. For example, IKAs are increasingly popular as shopping destinations, so their sales potential is important to ABC even though they are very demanding. At the same time, LTPs are potentially beneficial to ABC in offering possibilities to explore new markets and far-reaching areas; indeed, they still contribute higher total sales to ABC than IKAs. Although on-going skirmishes take place in which ABC, LTPs and IKAs exchange threats, opportunities nevertheless exist within the supply relationship and the chances of a long-term severance of the relationships are close to zero. In such a network, flexibility is reflected in the ability of ABC to accommodate short-term fluctuations (even though they create inefficiency) in the on-going negotiations with the customers for long-term gain (customers' retention). In other words, the manufacturer, ABC, seeks to stay flexible even if this results in short-term inefficiencies, because it helps to maintain the necessary long-term relationship which, in some way, is trusted to remain profitable overall.

I suggest that the notion of flexibility as one element of an enabling control system (Ahrens and Chapman, 2004; Mouritsen, 1999; Jorgenson and Messner, 2009; Free, 2007; Wouters and Wilderom, 2008) should be used with caution. To this end, I also advise that one should evaluate the enabling system in the contexts where coercive and enabling approaches to control co-exist. The management of customers is embedded with flexibility where it allows manufacturer to improve their service level

with trade customers. However, flexibility was also used to satisfy one's interest and priorities that are dysfunctional to an organisation or to a wider network.

### **7.3.2. The enabling uses of open-book accounting**

The thesis, in seeking to address the question on how OBA influences supply chain practice, adds to the literature in two ways. Generally, while the most widely researched OBA has been conducted in relation to the strategic cost-saving initiative, my study specifically examines the role of accounting in supply chain operational decision-making. As observed in this study, the OBA existed in lieu of the presence of a manufacturer's representative, that is, a liaison at the customers' operational site. Such representation resembles the liaison position addressed by Abernethy and Lillis (1995) as one form of control device to achieve flexibility in an organisation, but this has yet to be explored in detail, through fieldwork, for instance. A liaison mechanism such as "spontaneous contact" and "face-to-face" interaction with customers fosters information-sharing (i.e. transparency). The information pertaining to the inventory balances of both manufacturer and customers, as well as to details of customers' purchase orders, helps to enhance flexibility (for example, by arranging stock transfer if this is urgently needed to fulfil the order for one customer) and also to improve efficiency (maintaining good customer service for that particular customer), thereby enhancing the practice of OBA.

Understanding OBA as inclusive of non-financial information creates a new form of accounting domain. My study contributes to the literature on the importance of non-financial measures in the operational management sphere (Viavio, 1999; Vaivio, 2004; Vaivio, 2006). The importance of non-financial information has long been emphasised, as can be seen with the introduction of balanced scorecard (Kaplan and Norton, 1996), which considers the value of non-financial information, as well as financial measures, for strategic performance. Non-financial measures are capable of providing “provocative” discussion and debates that probe further into the articulation of local knowledge, thus extending “management’s visibility beyond economic aggregates” (Vaivio, 2004, p. 58). Similarly, the emphasis on non-financial measures in the present study probes the articulation of local knowledge in the inter-firm context. The focus on key non-financial performance measures (e.g. CSL, inventory level) prompted customer service liaison departments to seek ways to maintain or achieve key targets for proactive actions (such as sharing product availability information to influence customer order decisions) or reactive actions (such as investigating customers’ product databases for data misalignment) that went beyond their organisational boundaries. These are all shared between firms, thereby facilitating OBA practice.

In addition, my study adds to the line of research on enabling control literature (Ahrens and Chapman, 2004; Free, 2007; Jorgensson and Messner 2008; Wouters and Wilderom, 2008; Chapman and Kihn, 2009). Adler and Borys (1996) call for

further research into the way in which an organisation can create an enabling formalisation. In the present study, enabling OBA formalisation was achieved through liaison. The accounting information provided through OBA is used as a means of enabling their work; this in turn creates more information to be shared. The integration of OBA and liaison contributes flexibility and efficiency to the supply chain. For example, the liaison used the shared information, i.e. the inventory balances of LTPs, to prioritise order fulfilment under a stock-out situation. Knowing that some stocks were available at LTPs, the liaison managed to arrange for stock transfer, thus flexibly responding to customers' needs and maintaining a good level of customer service.

### **7.3.3. The role of accounting in supply chain identity**

The thesis specifically addresses the research question on how accounting helps to influence the supply chain identity. This question attempts to address the issue of supply chain identity and its relationship to accounting, an issue that has been tangentially addressed in accounting literature. Concern about identity in accounting literature has so far been found to be a phenomenon that is residual to accounting uses. For example, some studies have demonstrated how the use of accounting in organisational spheres brought about changes to the ways of organising and thus to a firm's identity (for example, Ogden, 1995 and Miller & O'leary, 1987; Mouritsen et al, 2001). In addition, cultural studies of accounting have given rise to the notion of identity as residual (Ahrens and Mollona, 2007; Dent, 1991). More recent inter-



accounting studies also found a similar link between accounting and identity where accounting uses have changed supply chain relationship identity (Chua and Mahama, 2007; Free, 2007).

My study therefore makes a contribution to this line of research. The three perspectives introduced by Martin (2002) - namely, integration, differentiation and fragmentation - are useful in order to conceptualise supply chain identity, and thus to understand the nature of supply chain accounting uses on which identities depend. The study shows how supply chain identity is not a static, rather it can be in a multiple state of flux. Weick (1995, p. 20) states that:

Identities are constituted out of the process of interaction. To shift among interactions is to shift among definitions.

The supply chain network, which consists of multiple relationships, is characterised by having mixed identities: integrated, differentiated and fragmented. Within a manufacturer-dealer relationship, supply chain accounting is expressive of traits such as *unity, consistency and collective-wide action* when the supply chain is viewed as integrated. Within the functional divisions of the manufacturer, as well as within the relationships between manufacturer and customers, differentiated supply chain identity is attributed to features of supply chain accounting uses, such as *conflicting and inconsistent* interpretation over accounting and control measures. Within a manufacturer-retailer relationship, fragmented identities are exhibited when supply

chain accounting and controls symbolise ambiguity due to competing influences at domination.

In contrast, therefore, to previous studies of identity in inter-firm accounting, in which accounting has been shown as incidental, my study asserts that identity phenomena are central to the theoretical point; they have been used much more crucially to explain the key supply chain process in the field, and accounting has helped to articulate this process. In this sense, identity can be regarded as a cultural tool to be managed in order to achieve organisational-cultural effects.

#### **7.4. Limitations of the research**

Although the present study may have provided several contributions, its findings should be interpreted in the light of a number of limitations. One of these is that the reported case research is based on a single network of supply chain consisting of one manufacturer and its two dyads of customers, representing only the downstream supply chain. More in-depth studies of this kind, expanding the scope of a network to include an upstream supply chain (such as service providers and raw material suppliers) may provide more insights into the operations of supply chain accounting and controls. Moreover, the researcher did not have the opportunity to talk to senior management from other functions such as production, business and finance. The main observation was completed within a supply chain organisation, involving staff from managerial and operational levels. But this limitation should be seen in light of the

objectives of the study, which were to explore the function of supply chain accounting within operational management. Indeed, by focusing on one network of supply chain and its operational level staff, the time spent in the field enabled more focused and detailed observations to be made.

However, the observer of participants approach (Rosen, 1991), as part of the ethnographic methodology adopted in this study, can be challenged. While the researcher made constant efforts to observe day-to-day interactions, there was no direct involvement or participation such as that practised by traditional ethnographers when studying foreign culture. Nevertheless, as stated in Chapter 3, I was assigned as a trainee and given the opportunity to explore various functions of the organisation, including its customers. I was therefore able to gain enhanced access to the organisation, making contacts and interactions in order to understand their procedures. Viewed as a trainee at the organisation and thus posing no threat, members tended to share information about their company.

In addition, the amount of time spent in collecting data was a disadvantage when studying accounting in context. While it is acknowledged that longitudinal studies would seem to be particularly relevant and undoubtedly rich in knowledge, it is also important to reflect on “what one hopes to gain” (Morrill and Alan Fine, 1997, p. 444). Moreover, as outlined in Chapter 3, the researcher was already familiar with the language and organisational activities (Ahrens and Chapman, 2006), so was able to

make efficient use of time in developing an understanding of the issues addressed by the organisational participants.

### **7.5. Suggestion for future research**

The thesis has discussed the uses of accounting and controls in everyday supply chain operation. Notwithstanding its limitations, several avenues for future study can be identified. First, further detailed analysis of the role of liaison at customers' sites could be useful. As argued in Chapter 5, the liaison provides a bridge that connects the manufacturer with its customers, and has a role in encouraging transparency of supply chain, thus contributing to the practice of OBA. A closer understanding of their role and of the interactions among the liaisons (from various customers) would be of value.

Second, it might be interesting to explore the interactions among the supply chain controls, such as placement of liaison, OBA, reservation systems, allocation systems and KPIs. The study has demonstrated how reservation and allocation systems are used to support KPIs in managing a supply chain. Furthermore, the study has reported how the placement of liaison fosters the practice of OBA. It might be fruitful to examine how the various controls in the supply chain interact.

This research has sought to explore the complexity of supply chain management through ethnographic research. More in-depth investigation in this area is needed. It

might be useful to extend the study in order to examine new development and changes to KPIs, particularly for LTPs, given the increasing importance of IKAs to ABC over a period of time.

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## Appendix 1

### Summary of Fieldwork Activities

#### A. List of interviews within ABC

No	Interviewees	No. of interviews	Recorded	Duration
1.	Implant for Retailer A	1	1	76 m 40 s
2.	Implant for Retailer B	1	0	70 m
3.	Data Management Executive	1	1	47 m 05 s
4.	Implant for Retailer C	1	1	55 m 52 s
5.	Warehouse Development Manager	2	2	36 m 52 s 52 m 03 s
6.	Customer Service Manager (National Accounts)	2	2	71 m 44 s 49 m 30 s
7.	Group Customer Service Manager	2	1	54 m 52 s 20 m
8.	Customer service manager - NKAs	1	1	69 m 16 s
9.	Supply Chain Director	2	2	29 m 29 s 46 m 23 s
10.	Human Resource Director	1	1	38 m 48 s
11.	Materials management manager	1	1	35 m 13 s
12.	Central Return Warehouse Manager	2	2	64 m 57 s 52 m 35 s
13.	3 <sup>rd</sup> Party warehouse Manager	2	2	52 m 03 s 88 m 58 s
14.	Distribution Manager	2	2	111 m 31 s 70 m 23 s
15.	Group Supply and Demand Planning Manager	1	1	33 m 57 s
16.	Demand and Supply Planner	1	1	120 m 26 s
17.	Demand planner	1	1	33 m 51 s
18.	Branch Sales Manager	2	2	34 m 05 s 26 m 59 s
19.	Account Executive – Branch Administration	1	1	85 m 39 s

20.	Customer Service Executive – Branch Administration	1	0	40 m
21.	Commercial Controller	1	1	59 m 36 s
22.	Group Supply Chain Development Manager	1	1	21 m 25 s
23.	Account Executive – supply chain purchasing	2	2	48 m 01 s 19 m 49 s
24.	Account Executive – Inventory control	1	1	61 m 28 s
25.	Group Supply Chain Controller	2	2	61 m 45 s 10 m 24 s
26.	Warehouse Operations Manager	1	1	86 m 58 s
27.	Group Warehouse Operations Manager	3	3	49 m 16 s 27 m 23 s 22 m 07 s
28.	Central Factory Warehouse Manager	1	1	39 m 32 s
29.	Legal Advisor	1	0	30 m

#### **Interviews with Customers (Retailers and Dealers)**

No	Interviewees	No. of interviews	Recorded	Duration
1.	Procurement Manager, Retailer A	1	1	57 minutes
2.	Supply Chain Collaboration Manager, Retailer A	1	1	73 minutes
3.	Managing director, LTP A	1	1	55 minutes
4.	Managing, director, LTP B	1	1	57 minutes

#### **Interviews with service provider (Transporter)**

No	Interviewees	No. of interviews	Recorded	Duration
1.	Service Provider (Transporter) – Distribution executive	1	1	68 m 07 s

## B. Observation

### List of Observation\*

No	Events	Duration (Days/Hour)	Location
1	Monthly Branch Manager Meeting (BMM)	1 hour 30 minutes	Head Office
2	Monthly Head of Department Meeting at NDC	2 hours	NDC
3	New Route To Market Meeting (for East Malaysia)	1 hour	Head Office
4	Monthly Transporter Performance Review Meeting	2 hours	NDC
5	Daily Warehouse operations assembly for Mission Directed Work Team (MDWT)	15 minutes	NDC
6	Daily Transporters assembly for Mission Directed Work Team (MDWT)	15 minutes	NDC
7	Monthly Operation Review - Dealer A	2 hours	Dealer A's Management Office
8	Efficient Warehouse Replenishment Roadshow	1 day	Southern Sales Branch
9	Centralised warehouse and distribution Meeting	3 hours	Retailer's A warehouse
10	Monthly Multi Level Meeting (level 1)	3 hours	NDC
11	Induction course presentation by Group Customer Service Manager	1 hour	Head Office
12	Meeting New service provider - presentation	2 hours	Head Office

(Continue)

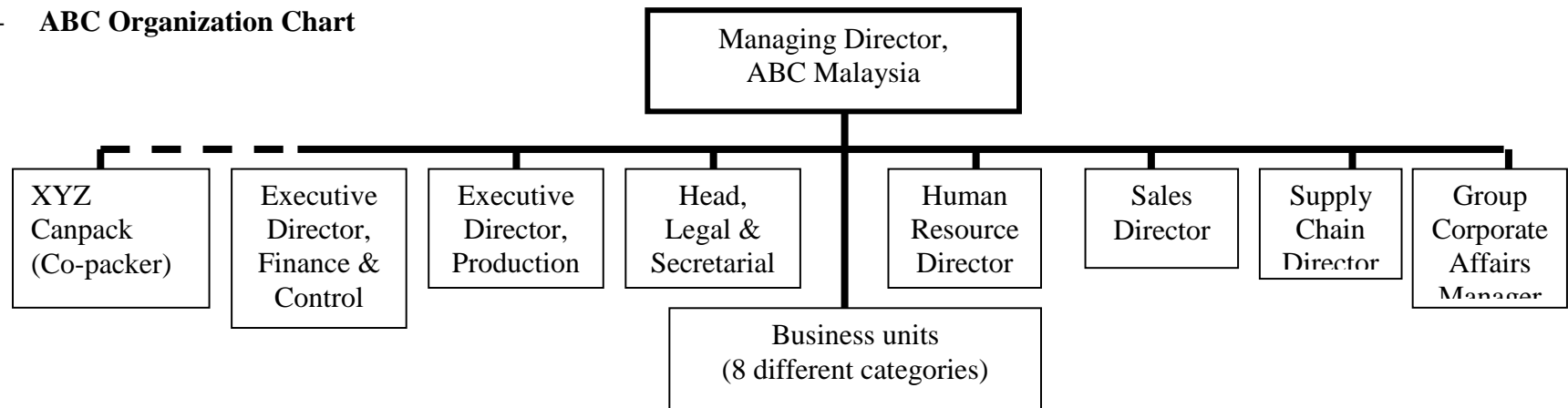
13	National Sales convention (attended by all sales staff, including customers representatives)	1 hour	Hotel - convention hall
14	Community Service - organized by Factory staff	1 day	Orphanage and old folks
15	Factory visit	1 day	Factory
16	Shadowing Warehouse Development Manager	1 day	Dealer C's warehouse
17	Shadowing sales representative	1 day	Retailer B's warehouse
18	Shadowing sales representative	1 day	Dealer B's customers

### C. Review of documents

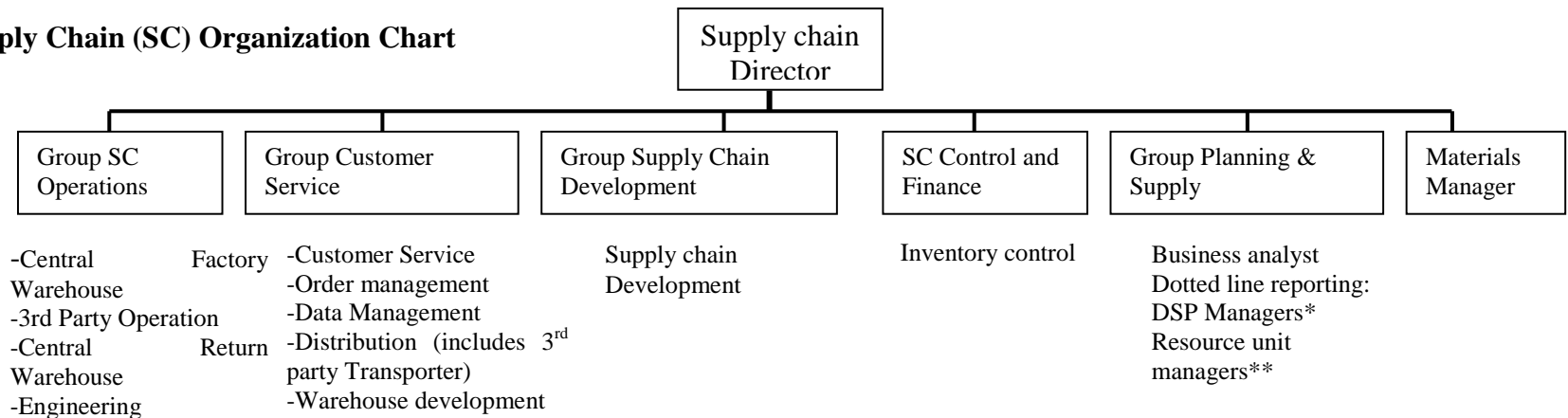
No.	Documents
1.	Distributorship agreements
2.	Annual Reports
3.	Standard Operating procedures - Customer Service for branches
4.	Distribution cost allocation template
5.	Transporter's KPIs scorecard
6.	ABC's supply chain organigram
7.	Supply chain monthly performance Report – PowerPoint slides (Jan – March 2009)
8.	Minutes of meetings - Branch Management meeting
9.	Standard operating procedures - Data Management
10.	Standard operating procedures - Efficient warehouse replenishment
11.	Standard operating procedures - Order management
12.	Standard operating procedures - Warehouse development
13.	Supply chain KPIs scorecard
14.	CSL performance report
15.	Weekly zero available to promise report
16.	IKAs overview – PowerPoint slides
17.	NKAs overview – PowerPoint slides
18.	Standard operating procedures - Demand and supply planning
19.	Delivery performance reports - IKAs
20.	Minutes of meeting – head of department meeting
21.	Annual resource allocation report
22.	Demand and supply planning – overview PowerPoint slides
23.	zero available to promise report – list of reason codes
24.	Warehouse operations - overview PowerPoint slides
25.	Standard operating procedures – warehouse Stock count
26.	MDWT – overview PowerPoint slides
27.	Warehouse operation cost report
28.	Market return Report
29.	Monthly internal bulletin – ‘Your Voice’

## D. Organization chart

### - ABC Organization Chart



### - Supply Chain (SC) Organization Chart



\*The managers are from different major business unit

\*\* The managers are from different factories



## **Appendix 2**

### **Interview guide**

The following questions were used during the interviews. They were used as a guide to gather factual information and generate discussion. These questions were addressed to three main groups of interviewees: the manufacturer (ABC), the customers (IKAs and LTPs) and service providers.

#### **Overview of Supply chain operations**

1. Who are your customers/suppliers?
2. What is the key program/strategy for supply chain operations? What do you think about it?
3. Have there been major changes in supply chain management/structure (e.g. distribution, warehousing etc.)?
4. In your opinion, how well does the supply chain strategy boost the company performance? Will you continue such strategy in the future?
5. What are the critical issues in supply chain operation and how do you solve them?
6. What are the major concerns/expectations with respect to supply chain relationship?
7. Have there been any major changes in supply chain?
8. Are there specific guidelines/standard operating procedures that govern the relationship with customers/suppliers)?
9. Have there been conflicts/difficulties in managing customers how do you resolve?
10. How do you expect your customers/suppliers to understand your challenges/business limitation? To what extent they understand your business so far?
11. How do you describe your working relationship with customers/suppliers?
12. To which part of the organization do you belong to?
13. In your opinion, how would you describe your business relationship with the allied partner?
14. In your opinion, how has the allied partner describe business relationship with your company?

#### **Performance measurement in supply chain**

1. Can you explain about you main task(s) in relation to customers/suppliers?
2. How does your performance being measured?
3. How does your customer/suppliers measure you performance?
4. How does your company manage/control the supply chain operation?
5. How has the control system (as answered in the previous) been developed?
6. How has the supply chain partner been involved in the development process?
7. How has the control system been implemented?
8. In your opinion, to what extent does the system help managing the alliance operation?

9. What are the key areas of performance in assessing the supply chains operation? How do you go about deciding on these areas (why)?
10. How would you evaluate these aspects of performance?
11. How frequent do you review the performance of the supply chains?
12. How do you handle the feedback/penalty/reward?

**Information sharing**

1. What kind of resources do you share together? Is there any particular collaborative activities?
2. To what extent do you share information with your customers?
3. What sort of information do you share with them?
4. How do you use information provided by the customers/suppliers?
5. Have there been conflicts arose with regards to the use of the information provided?