

Accountability to whom?

- Managing a cross-organizational practice

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Abstract

This study examines intra-organizational control is affected by inter-organizational relations. More specifically, this study seeks to understand how management's ability to influence external customer behavior is affected by intra-organizational characteristics. This is investigated through a qualitative case study of the reverse logistics process employed at an aftermarket unit (SpareUnit) of a large, industrial MNC. By incorporating both inter- and intra-organizational efforts, the reverse logistics process captures the width of the research question. A conceptual framework synthesizing the intra-organizational tensions identified by Busco et al (2008) with the vertical and lateral accountabilities presented by Cäker (2007) was used for the analysis. The study finds that subsidiaries' strong lateral accountabilities to customers can prove an impediment to headquarters' intra-organizational control, as requirements from headquarters that are perceived as contradictory to the lateral accountability to customers can be deprioritized by the subsidiaries. This finding is similar to that of Cäker (2007) and highlights the importance of considering inter-organizational relationships when studying intra-organizational control. Further, the study finds that in SpareUnit, headquarters exercised their decision-making authority to overcome such difficulties by forcing the subsidiaries to manage the tension of being laterally accountable to customers and vertically accountable to headquarters. This in turn had implications on the perceived distance between headquarters and subsidiaries. Although the *strategic distance* between headquarters and subsidiaries was collapsed, the *relational distance* between the parties was enforced.

Key words: MNC; vertical and lateral relations; convergence and differentiation; centralization and decentralization; customer accountability

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1. Introduction: inter-organizational relations increase complexity when managing the organization

Along with increased globalization, rapid technological transformation and technical complexity of products, scholars suggest that corporations must deal with an increased number and importance of inter-organizational relationships (Kraus & Lind, 2007). Due to scarcity of resources, firms are forced to enter into more cooperative inter-organizational relations (Aiken & Hage, 1968). One important inter-organizational relationship is that with the customers, which in its traditional setting is characterized by the outflow of goods in exchange for revenue.

However, during the last two decades, the focus of the customer-supplier relationship has expanded from single product sales to the sales of solutions, i.e. products and services combined (Cohen et al, 2006). For some industries (e.g. automobiles, industrial machinery), the aftermarket has grown to the extent that it has become four to five times larger than the original equipment business (Cohen et al, 2006). Additionally, the high profit margins associated with the aftermarket makes it an important, yet often over-looked, study subject (Farris II et al, 2005). The aftermarket can, if successfully managed, benefit companies in several ways: aftermarket activities provide firms with low-risk revenue streams over an extended period of time; it provides a source of differentiation; and presents the firm with a good opportunity to gain a better understanding of their customers (Cohen et al, 2006). However, despite the opportunities to increase both revenue and profitability through aftermarket sales, many organizations fail to realize these opportunities (Cohen et al, 2006; Gallagher et al, 2005; Phelan et al, 2000). Johnstone et al (2009) suggest that the difficulty to succeed in such businesses can be one reason for the deprioritization of the aftermarket.

Recent studies within operations management have noted an increasing interest in a specific aftermarket business strategy: the focus on the flow of goods from the customer to the supplier, known as *reverse logistics* (e.g. Guide Jr & van Wassenhove, 2001; van Hillegersberg et al, 2001; Klausner & Hendrickson, 2000; Stock & Mulki, 2009). However, the literature on strategic considerations in this area is still limited (Subramoniam et al, 2009). The increased importance of inter-organizational relationships and joint programs across organizational boundaries increase the complexity of the internal organization, as a commitment of organizational resources to other organizations likely will affect various departments and central programs within the organization (Aiken & Hage, 1968). Thus, coordination problems are likely to become particularly acute, and need to be managed through frequent internal communication (Aiken & Hage, 1968). Multinational corporations (MNCs) have been found to be particularly complex to manage due to the various tensions inherent in such organizations (e.g. Busco et al, 2008; Roth & Kostova, 2003).

The intention of this paper is to investigate how the reverse logistics process employed by an MNC is managed both within and across organizational borders. Especially, we aim to examine what impact *intra*-organizational characteristics might have on management's ability to affect the *inter*-organizational relationships with external customers. This aligns with Takeishi's (2001) suggestion of the relatedness between intra-firm variables and inter-firm relations. The studied MNC features a matrix-organization. Such an organization structure will, due to its inherent complexity, have implications for management and control, as effective management of matrix

organizations contrasts sharply to the management of traditional forms of organizations (Kolodny, 1979). This study will specifically focus on a sub-division of the studied organization, and in particular the aftermarket unit of the sub-division, where management is dissatisfied with how the reverse logistics process is operating. As the reverse logistics process is dependent on external customers' cooperation, we pose the following research question:

How can management's ability to influence external customer behavior be affected by intra-organizational characteristics?

In order to help us answer the overarching question, we will pose the following sub-question:

What intra-organizational characteristics affect management's ability to influence external customer behavior?

The overall research question is addressed through a qualitative case study at a large manufacturing MNC, where the aftermarket unit of a sub-division, in the following referred to as SpareUnit, will be the focal point of the study. More specifically, personnel from SpareUnit headquarters (HQ), located in Sweden, as well as from ten subsidiaries, in the following referred to as local business units (LBUs), are represented among the total of 24 semi-structured interviews conducted. Through the interviews, the aim has been to understand why headquarter management is dissatisfied with the reverse logistics process and how they are dealing with it. Thereby, "management" in the research question is operationalized as SpareUnit HQ management.

The analysis is performed by applying a conceptual framework, consisting of an intra-organizational perspective building on the contributions by Busco et al (2008) which is complemented with an inter-organizational perspective through the concepts of Cäker (2007). The framework characterizes the organization according to vertical and lateral accountabilities of the LBUs towards management and customers, respectively; the convergence and differentiation of practices throughout SpareUnit; and the centralization and decentralization of decision-making in SpareUnit. This study thereby expands the study by Busco et al (2008), through incorporating an inter-organizational aspect, and the study by Cäker (2007), by further examining how organizational units handle the multiple objectives of customer focus and vertical accountability.

The conclusions of this study are that a strong customer focus throughout the SpareUnit organization, supported by SpareUnit HQ and adopted by the LBUs, later impeded SpareUnit HQ's aim to increase profitability by improving the reverse logistics process. To counter the strong accountability to customers among the LBUs, SpareUnit HQ utilized its centralized decision-making authority and enforced a stringent invoicing of LBUs in cases when they did not conform to the reverse logistics process. Through the invoices, SpareUnit HQ delegated the decision-making of continuing the strong accountability to customers and the corresponding deprioritization of the reverse logistics process, or striving to improve the reverse logistics process at the potential loss of customer satisfaction, to the LBUs.

1.1. Outline

The study in total consists of six main sections, where the following five sections proceed as follows. In the next section, Section 2, a review of the existing literature is provided. To begin with, the increasing complexity of organizations due to differing strategic demands is discussed. As external pressures were found to impact the internal organizational structure (Malnight, 2001), the impact of such is thus important to consider when studying control of an organization. Thereafter, the historical perspective of top management using formal structures and control systems for controlling the organization is discussed. However, it is later argued that such formal organizational structures and control systems are not enough, as also the consideration of subtler and less formal control mechanism are important for managing organizations. Considering also less formal control mechanisms, Busco's et al (2008) intra-organizational tensions are presented. For answering the research question and consider inter-organizational effects on intra-organizational control, the intra-organizational perspective must be complemented with an inter-organizational perspective. Thereby, we consider also Cäker's (2007) terms on accountability. The section concludes with our conceptual framework, which will be used for the analysis, along with the operationalizing of our research question as well as our contributions to existing theory.

In Section 3, the methodological choices and the design selected for the study will be described along with its implications for the study. The study will be performed using an in-depth case study due to its explanatory nature. Before the interviews began, a pre-study was performed in order to gain a better understanding of SpareUnit and its reverse logistics process. This also helped the researchers when making the interview schedules. Twelve interviews were performed with SpareUnit HQ personnel and twelve with the ten different LBUs. The interviews were semi-structured and circulated around three themes (SpareUnit HQ personnel) or four themes (LBU personnel), namely general questions, the reverse logistics process, targets and evaluation and – if applicable – LBU-specific questions. This section ends with a reflection on research quality, given the methodological choices taken, in order to help the reader assess the quality of the study. The empirical findings are found in Section 4, which begins with a brief background of the InduComp organization and in particular, the unit of study: SpareUnit. As noted earlier, SpareUnit HQ was not satisfied with how the reverse logistics process operated, where the main difficulty lied in getting the parts back from customers. From both SpareUnit HQ's side and the LBUs' side, barely any follow-ups or evaluations on the performance of the reverse logistics process were performed. If so, such were less formal and tied to non-financial incentives. In order to come to terms with the situation, SpareUnit HQ did, during 2013, implement a stringent invoicing approach where the LBUs would receive invoices for all parts not returned within 30 days. This approach was, however, not appreciated by the LBUs who instead felt squeezed due to often being unwilling – and unable – to pass on such invoices to the customers due to customer satisfaction concerns.

The analysis of the empirical findings is provided in Section 5, which is presented according to the various tensions identified by Busco et al (2008) and Cäker (2007). To begin, we find that convergence of practices was prevalent, in particular through a standardized reverse logistics time limit. However, the LBUs were autonomous in their relations towards the customers. This autonomy along with the strong customer focus throughout the organization, led the accountability of the LBUs to lie mainly towards the customers, rather than towards SpareUnit

HQ, with the effect that the LBUs had been unwilling to approach the customers further or invoice them for missing returns. However, in order to come to terms with the situation, SpareUnit HQ centrally imposed stringent invoicing for all parts not returned within 30 days, which the researchers view as a way for SpareUnit HQ to *delegate* the management of the tension between vertical and lateral accountabilities to the LBUs. However, the invoicing makes the management of the tension *conditional*, as the situation under which the LBUs must manage the tension is affected by a headquarter-imposed factor. In the final section, Section 6, our key findings are summarized. The main conclusions are: (i) a strong lateral accountability to customers can be an impediment to intra-organizational control; thus, the inclusion of Cäker's (2007) concepts of vertical and lateral accountabilities proved useful in combination with Busco's et al (2008) concepts for analyzing intra-organizational control; (ii) adding a vertical requirement, which can be perceived as countervailing the prevalent lateral accountabilities, can prove difficult to enforce; (iii) to overcome such difficulties, management can exercise their decision-making authority and force a management of tensions at the local level; (iv) however, such conditional management of tension can have implications on the perceived distance between subsidiaries and headquarters: although strategic distance might be collapsed, relational distance might be enforced.

2. Previous research: management of complex organizations

This section positions the study in relation to previous research related to our research question, and articulates this study's contribution to theory. The section is divided into six parts, whereof five relates to previous research on the subject whereas the last section relates to the conceptual framework used for this study. To begin with, we discuss the increasing complexity of organizations, which follows from differing strategic demands. External pressures are important to consider, as such are found to impact the internal organizational structure (Malnight, 2001). Following that, the historical control perspective which centers on top management's ability to control the organization through formal structures and control systems is discussed. However, in the third part, it is argued that such formal organizational structures and control systems are not enough for controlling the organization, as also the consideration of subtler and less formal control mechanisms is important for managing organizations. Thereby, the intra-organizational tensions of Busco et al (2008) are presented, namely vertical versus lateral relationships; convergence versus differentiation of practices; and centralization versus decentralization of decision-making. However, such tensions, although considering also less formal control mechanisms, are not enough for understanding the impact from inter-organizational relationships on control of the organization. Therefore, in the fourth section, research on inter-organizational relationships and its implications on the organization are provided. In this section, the tension of Cäker (2007) between accountability for versus accountability to customers is discussed. In the fifth section, a brief summary of the previous sections is provided before moving on the final section. In this section, a conceptual framework, which incorporates both intra-organizational and inter-organizational relations, is presented. This framework presents the tensions of Busco et al (2008) while incorporating also inter-organizational relationships with customers through including the tension of Cäker (2007). Finally, we summarize this part through discussing the operationalization of the research question using the conceptual framework and discuss how our thesis can contribute to theory.

2.1 Increasing complexity of organizations follows from differing strategic demands

There is a long-standing practical and academic interest in how to manage complex organizations. A few papers have attempted to link the internal configuration of MNCs to various strategic focuses throughout the latter part of the 20th century (e.g. Bartlett & Ghoshal, 2002; Hedlund, 1986). Bartlett & Ghoshal (2002) identify three different historical patterns of overseas expansions, namely the multinational strategy, the international strategy and the global strategy. The three strategies imply various degrees of adaption to local demands, at the expense of achieving economies of global scale. The multinational organization, with highly independent and autonomous subsidiaries, is responsive to local conditions but does not utilize the scale benefits of an integrated organization. The international organization, which implies leveraging centrally developed capabilities, whereby subsidiaries are delegated autonomy to adapt products and marketing strategies to local conditions, achieves a more balanced use of integration and local responsiveness. Finally, within the global organization, where the world is perceived as one homogenous market and the strategic focus concerns cost efficiency, subsidiaries are confined to sales, service and assembly with correspondingly little autonomy. This strategy aims at high global integration, while trading off local responsiveness. Bartlett & Ghoshal (2002) argue that the current competitive world situation, where multinational flexibility, worldwide learning capabilities and global competitiveness are demanded simultaneously, implies that these strategies must be combined as to allow organizations to benefit from the advantages of each strategy. To cope with the current demands, the idealized transnational strategy is suggested as an emerging strategy that attempts to combine the strategic focuses of the other three strategies. Hereby, selective choices are made whereby organizational units are given specialized but central roles in the integrated network that is the transnational organization.

MNCs thus respond to the ever more complex pressures of globalization by increasing their internal structural complexity and by systematically differentiating their structures to respond to relevant sub-environments for individual processes (Malnight, 2001). In addition, when firms are simultaneously pursuing multiple and potentially conflicting strategic objectives, the need for internal structural divergence will increase (Malnight, 2001). The importance of the external setting has been raised as well, as it has been shown that the intra-organizational setting is affected by – and affects – the inter-organizational environment (e.g. Andersson & Forsgren, 2000; Håkansson & Lind, 2004; Thrane & Hald, 2006), why it is important for organizations to coordinate both the internal and external activities in order to gain a competitive advantage (Takeishi, 2001). The theorized transnational strategy of Bartlett & Ghoshal (2002) offers an illustration of the link between external demands and internal complexity (Martinez & Jarillo, 1989).

2.2 Managing the MNC: issues of coordination and control

Issues of coordination and integration of MNCs have become more critical with the increased number, size, nationality and geographical spread of such organizations (Busco et al, 2008), and research is vast on the topic of management of such organizations (e.g. Busco et al, 2008; Dooms et al, 2008; Dossi & Patelli, 2008; Doz & Prahalad, 1984; Frow et al, 2005; Kostova & Roth, 2002; Martinez & Jarillo, 1989). However, in order to create, or maintain, a competitive advantage in an MNC, it is crucial to *manage* such an organization (Prahalad & Doz, 1987). Earlier notions

of control of MNCs emphasized the role of top management to govern the organization, using and formal and structural solutions as tools for managing the complexities. Bartlett & Ghoshal (2002) note that “*The formal [organizational] structure was recognized as a powerful tool through which management could redefine responsibilities and relationships*” (p. 33). Prahalad & Doz (1987) also focus on top management’s role for governing the organization when discussing the central capabilities which top management can use in order to affect the nature of the relationship between headquarters and subsidiaries. Such capabilities include the ability to change the nature of the relationship between headquarters and subsidiaries in order to reflect changes in strategic direction.

2.2.1 Agency theory and resource dependency as complementing theories of control

As a consequence of the emphasis on top management as the controlling force of the MNC, agency problems have been an important consideration in the management of such organizations. In any situation where the goals of the principal are in conflict with the goals of the agent, and when it is difficult and/or expensive for the principal to verify that the agent is acting in the principal’s interests, an agency problem arises (Eisenhardt, 1989; Jensen & Meckling, 1976). For example, Roth & O’Donnell (1996) discuss agency problems in the headquarters-subsidiary relation, where headquarters delegated work and responsibilities to foreign subsidiaries. As the interests of the local subsidiaries might not correspond to the interest of headquarters, a control problem can appear (Nohria & Ghoshal, 1994; Roth & O’Donnell, 1996). Nohria & Ghoshal (1994) claim that much of the previous literature has failed to account for differences among subsidiaries and its implications for control, as such differences make each headquarter-subsidiary relation a separate control problem. Thus, the MNC is facing different control problems with each subsidiary which must be managed accordingly (Prahalad & Doz, 1987).

Roth & O’Donnell (1996) found that three different factors affected the agency problem in the headquarters-subsidiary relation: cultural distance between headquarters and subsidiaries; strategic and operational role of the subsidiary; and subsidiaries’ commitment to the parent. First, a larger cultural distance increases agency problems due to higher information asymmetry. Secondly, with managerial discretion given to subsidiaries, agency problems increase. The third factor, parent commitment, refers to the psychological identification of subsidiary managers with headquarters. An increasing parent commitment will reduce the agency conflict as goal alignment between headquarters and the local manager increases (Roth & O’Donnell, 1996). Consistent with this reasoning, Nohria & Ghoshal (1994) find that shared values between headquarters and subsidiaries will enhance the MNC’s overall performance. Finally, Mudambi & Pedersen (2007) claim that agency theory is applicable for the traditional model of an MNC where the subsidiaries are parent company competence-exploiting and differ with regards to the benefits (e.g. profit) they create. For such subsidiaries, the degree of autonomy allowed is directly linked to the benefits the subsidiary creates for the overall MNC, where subsidiaries creating large benefits are less autonomous than others.

Abandoning the idea that control only remains with top management, resource dependency theory has emerged as a complement to agency theory. Prahalad & Doz (1987) discuss how subsidiary dependency on headquarters can facilitate headquarters’ ability to control the subsidiaries. The authors propose three different forms of dependencies: in the first setting, subsidiaries are locked in a complex web of relationships as no subsidiary is capable of

duplicating the capability of the parent. Thereby, headquarters orchestrates the pattern of product and component flows and has a significant influence over the subsidiaries. In the second setting, the subsidiaries mainly serve as sourcing platforms, devoted to serve other markets within the MNC, which allows headquarters to significantly influence decisions of capacity, technology used, etc. In the third setting, subsidiaries are dependent on headquarters for technological and/or managerial resources, why such dependencies can be used to influence subsidiaries' actions.

However, Prahalad & Doz's (1987) notion of control is focused on the unilateral dependencies of subsidiaries on headquarters, whereas other papers have argued that as the MNC evolves, it becomes increasingly dependent on leveraging the competencies of the entire network in order to generate competitive advantages (compare with Bartlett & Ghoshal's (2002) transnational strategy). Thereby, each subsidiary has its own strategic role on which all other organizational units are dependent (e.g. Mudambi & Pedersen, 2007). Subsidiaries create competencies based on control of intangible resources (e.g. sources of knowledge) over which property rights are difficult to define and defend. By "owning" their decision-rights, these subsidiaries exercise considerable power within the MNC (Mudambi & Pedersen, 2007). In line with this, Gupta & Govindarajan (1991) propose that the degree of subsidiary autonomy should vary with the knowledge inflow and outflow from each subsidiary to the rest of the organization. More specifically, the authors suggest that headquarters will leave more room for autonomous initiatives to subsidiaries with high knowledge outflows, and less for those subsidiaries that rely on, rather than create, knowledge. Thus, resource dependency theory posits that subsidiaries can exercise considerable power within the MNC. In line with this, resource dependency theory is not restricted to unilateral hierarchical dependencies, but can be applied to understand control within the network structured MNC.

Recent studies are ambiguous on which theory best can explain control of concurrent MNCs. Some researchers have argued that resource dependency theory can complement or replace agency theory in explaining the full variety of intra-organizational relationships within the MNC (e.g. Björkman et al; 2004; Mudambi & Pedersen, 2007; O'Donnell, 2000), while others have shown that corporate control still relies on substantial rather limited standardization across organizational units (e.g. Doms & van Oijen, 2008). Therefore, an open-minded approach is required when seeking to explain corporate control in the MNC.

2.2.3 Practical applications of control: control systems in use

Research on organizational control has increasingly paid attention to packages of control mechanisms available to management, referred to as management control systems (e.g. Simons, 1995) or performance management systems (e.g. Ferreira & Otley, 2009). These systems consist of a variety of control mechanisms. For instance, Simons (1995) defines the management control system as "*the formal, information-based routines and procedures managers use to maintain or alter patterns in organizational activities* (p. 5)".

Ferreira & Otley (2009) take a broader perspective when defining performance management systems (PMS) as:

“the evolving formal and informal mechanisms, processes, systems, and networks used by organizations for conveying the key objectives and goals elicited by management, for assisting the strategic process and ongoing management through analysis, planning, measurement, control, rewarding, and broadly managing performance, and for supporting and facilitating organizational learning and change.”
(Ferreira & Otley, 2009, p. 264)

Several researchers have argued that accounting should be studied in its use. Roberts & Scapens (1985) propose that accounting research should *“explore the conditions and consequences of the production and use of accounting information, and in this way [...] begin to develop an understanding of the way that accounting information not only reflects, but through different forms of use also shapes organisational reality.”* (p. 455). Similarly, Hopwood (1987) proposes that accounting should be studied in its use, reflecting that accounting practices are constantly in motion and evolving over time. The need to look beyond the formal system and consider how it is used is highlighted in Quattrone & Hopper (2005), who compare the implementation of the same enterprise resource planning system in two organizations. The authors show how the way formal systems are implemented affects the resulting perceived control. In the first case, the implemented system was used for maintaining the existing hierarchical control and did not redefine the relations between different organizational levels. In this case, distance³ between headquarters and subsidiaries was argued to have been maintained. In the second case, the system was implemented in order to reduce the distance between the headquarters and the periphery, with the result that control became widespread throughout the organization, leaving managers with a sense of minimal control.

In line with the call for contingency studies of accounting, recent studies of control in MNCs have focused on the practical use of control systems. Performance evaluation systems have been argued to be critical for the exercise of control (Otley, 1999); in particular for organizations operating across countries and industries (Coates et al, 1992). Three recent studies examining the use of such systems in MNCs are those by Busco et al (2008), Dossi & Patelli (2008) and Mahlendorf et al (2012). In their study of Nestlé Waters, Busco et al (2008) examine the role of performance management systems when integrating MNCs. More specifically, their study is mainly circulated around the newly implemented aspect of the performance measurement system. In line with Quinn (1996), who argues that control systems can be important for creating a dialogue between the parties (e.g. headquarters and subsidiaries), the implemented performance measurement system in Nestlé Waters was found to increase communication between organizational units by providing managers with a common language, procedures and structures. However, Busco et al (2008) note that such formal control practices are only partial tools for managing integration of MNCs, and highlight the need to expand the control aspect into informal systems, such as lateral communications between subsidiaries that rely on trust. Similarly, Dent (1996) argues that the coordination of information and knowledge flows in the modern MNC⁴ may be beyond the scope of formal systems and hierarchy. He argues that well-developed informal practices, e.g. forums for information exchange, are needed to facilitate

³ Quattrone & Hopper (2005) refer to distance as the spatial and temporal separations of headquarters and subsidiaries.

⁴ Dent (1996) builds on Bartlett & Ghoshal's (2002) idealized “transnational” strategy.

coordination of such flows. Thus, the formal aspects of the performance measurement system had implications on the informal aspects of the PMS.

Dossi & Patelli (2008) study the influence of performance measurement systems on subsidiaries' decision-making. They find that higher subsidiary participation in the system's design; headquarters' cultural tolerance for uncertainty; subsidiary size; and global pressure positively affect the influence of the performance measurement systems on subsidiaries' decision. However, measurement diversity and the linking of the performance measurement systems to rewards, of which the latter aligns with agency theory, were not found to have an impact on the decision-influencing use (Dossi & Patelli, 2008). In contrast to Dossi & Patelli (2008), Mahlendorf et al (2012) find that linking subsidiary managers' compensation to headquarters' performance measurement system increases its decision-influencing ability, in line with what agency theory predicts. Thereby, Mahlendorf et al (2012) posit that for headquarters to benefit from the parent-PMS, the PMS should make cause-effect relationships between measures and consequences, or actions and consequences, visible, and possibly be linked to financial rewards and formal controls.

Mahlendorf et al (2012) further find that the characteristics of a comprehensive performance measurement system⁵ matter for subsidiaries' decision making. The importance of consistency is also highlighted by Micheli et al (2011), who find that the effectiveness of strategy implementation efforts by headquarters could be considerably reduced if there are inconsistencies between management style and strategic goals. Finally, Mahlendorf et al (2012) find that in cases where subsidiaries engage in significant relationships with local counterparts, i.e. when they are externally embedded, performance measurement systems may prove a favorable mechanism of control. The implication of this finding is that headquarters need to analyze the external relations of their subsidiaries when implementing an organization-wide performance measurement system.

2.3 Organizational structures are insufficient for managing inherent tensions

The unilateral focus on structure and formalization as mechanisms for control has ever more been abandoned in favor of a focus on the process of managing complex organizations. For instance, Doz & Prahalad (1984) argue that organizations cannot rely on their internal structures for achieving a balance between integration and responsiveness. It has been argued that the matrix organization, implemented as a structural solution to manage the increased external complexity, did not work as intended, as it created barriers that hindered the crucial process of confronting and resolving the differences (Bartlett & Ghoshal, 2002; Egelhoff, 1991). Therefore, attention toward the process of reaching a balance between integration and responsiveness is more important (Doz & Prahalad, 1984). The shift of focus towards subtler and less formal control mechanisms has brought to attention the delicacy of managing complex organizations such as MNCs, as was highlighted in the studies of accounting in use (referred to above). The implications are that top management need to look beyond themselves and formal structures, and also consider impacts on subsidiary level in order to achieve efficient control.

⁵ They authors define a comprehensive performance measurement system as including explicit links to strategy; measures integrated into the value chain; clarified roles; increased job meaningfulness; and measured managerial performance.

MNCs are characterized by heterogeneity, which can be classified as contextual, intra-organizational or individual (Roth & Kostova, 2003). Contextual heterogeneity implies that the MNCs are, by their very nature, characterized by the multiplicity and diversity of their environments. Intra-organizational complexity, on the other hand, refers to the intra-organizational heterogeneity, such as different goals or orientations of MNC units. Finally, individual heterogeneity refers to the different beliefs and values of the individuals within the MNC. Realizing the heterogeneity inherent in the MNC, both theorists and practitioners have started to discuss the competing pressures, or *tensions*, within MNCs (see for example Roth & Kostova, 2003; Busco et al, 2008). In the study by Busco et al (2008), three such tensions are discussed, namely: vertical versus lateral relations; convergence versus differentiation of practices; and centralization versus decentralization of decision-making. These tensions are described in the following section.

2.3.1 Vertical versus lateral relationships within the MNC

The first tension identified by Busco et al (2008) is that between vertical and lateral relationships within the MNC. Vertical relationships consider the relation between headquarters and the subsidiaries and thus relate to power and authority within the MNC. The vertical relationship is mainly related to the organizational structure and the formal mechanisms used by headquarters to control subsidiaries, and have been viewed as a primary integrating mechanism (Martinez & Jarillo, 1989). However, with the increased need for flexibility, such vertical relations are increasingly being combined with more direct relations between subsidiaries, which are referred to as lateral relations (Busco et al, 2008). Lateral relationships are becoming more important in cases where power and authority are more dispersed (see for example Martinez & Jarillo, 1989; Quattrone & Hopper, 2005). Tsai (2002) examines knowledge sharing within multiunit organizations, and finds support for a negative effect of centralization, i.e. a dominant vertical relationship, with regard to knowledge sharing between organizational units. As a consequence, Tsai proposes that managers should reduce vertical constraints and increase lateral, social interactions to encourage internal knowledge flows and improve the capabilities of their organizations (p.189).

In the case presented by Busco et al (2008), the newly implemented performance measurement system led to shared accountabilities between the producers of the international water brands and local distributors. A joint planning and budgeting process was implemented along with shared and overlapping targets for the producers and distributors. Due to the joint objectives, the lateral communication and information exchange had increased significantly. Besides promoting the lateral relations, the newly implemented performance measurement system was also supporting the vertical relations between headquarters and the business units. The vertical relations did, in turn, support the new patterns of lateral communications through the centrally imposed performance measurement system. Thus, the vertical relations can be viewed as enabling and supporting the lateral information exchange. Additionally, by relying on the formal procedures and structures provided by the performance measurement system, in addition to the supervisory role of headquarters, some of the inherent risk in the lateral relations was reduced.

A similar situation was found in the study by Frow et al (2005) where the managers at the case company Astoria were heavily dependent on the performance of other managers in order to

achieve their own objectives and targets. Although individual controllability was limited, the managers found the lack of controllability to be “*positively challenging*” (Frow et al, 2005, p. 289). In order to resolve the situation with overlapping accountabilities and lack of controllability, managers engaged in more lateral cooperation as they explicitly recognized that they could not achieve their individual targets independently of each other. Similar to the case by Busco et al (2008), did the formal control procedures at Astoria facilitate the lateral relations. Further, when informal arrangements were not feasible or when informal arrangements broke down (e.g. because a particular manager was initially unwilling to cooperate), the formal procedures were used instead. The informal and formal forms of accountability were complementary, which was critical for managers in order to handle accountability while lacking controllability (Frow et al, 2005). Thus, the shared performance measures led to improved lateral relations and increased informal communication.

As highlighted above, studies have emphasized the importance of considering both vertical and lateral relationships for the MNC. This follows the ideas of the emerging transnational strategy (Bartlett & Ghoshal, 2002), where the MNC evolves into an “integrated network” of which lateral flows are essential. Thus, in order to grasp an overall view of the control system within a firm, also lateral relations are important to consider.

2.3.2 Convergence versus differentiation of practices

When defining convergence and differentiation of practices, Busco et al (2008) refer to Vance (2006). According to Vance, convergence refers to company-wide practices and values across national borders, which enable coordination and create organization-wide synergies. Differentiation, on the other hand, refers to responsiveness to local conditions; thus, considering cross-cultural differences. Busco et al (2008) argue that tensions between subsidiaries’ local environments and the relationships within the MNC are likely to require both convergence and differentiation of management practices. Vance (2006) acknowledges that even if there is a strategic importance of convergence within MNCs, such practices need to consider conditions of cultural diversity at the subsidiary level, by allowing for appropriate customization through differentiation. In line with this, Newman & Nollen (1996) argue that management practices must be adapted to the national cultures in which the enterprise operates as such differentiation has positive impact on performance. The importance of differentiation is also acknowledged by Nohria & Ghoshal (1994), who state that the higher the extent to which an MNC differentiates the formal structure of its headquarter-subsidiary relations to fit the context of each subsidiary, the better the MNC as a whole will perform. However, in addition to differentiation, also shared values across headquarters and subsidiaries were found important as MNCs that implemented both were found to have the best relative performance (Nohria & Ghoshal, 1994).

Also Vance (2006) highlights the importance of convergence and differentiation working together in order to simultaneously support both global strategies and local business processes. Convergence and differentiation can take place at different organizational levels; meaning that strategic decisions taken at headquarter level might require global convergence whereas decisions of implementing those strategies, taken at local level, might allow differentiation through adapting the strategies for the local market (Vance, 2006).

In the study by Busco et al (2008) of Nestlé Waters, convergence and differentiation of practices occurred simultaneously. In this case, a standardized performance measurement system was implemented for the international brands, which had the benefits of increasing confidence in the relations between producers and distributors and aid information sharing. For example, one producer had no doubts taking additional costs to redesign the packing and shipping activities of the water sold to distributors as this led to greater cost reductions in later steps of the Nestlé Water value chain, and more specifically at distributor site. However, this standardization was not extended to the local brands, why such brands instead remained autonomous and decisions concerning these brands were taken in the local subsidiaries. Thus, the subsidiaries could maintain local diversity and continue to apply the local practices deemed necessary for handling such brands. Combining standardization and differentiation, as shown by Busco et al (2008), is something which Doooms & van Oijen (2008) find that multibusiness organizations attempt to do, which they term “tailorized standardization”. The authors find that while autonomy is tailored to each subsidiary, integration, formalization, and communication are affected by both corporate effects and subsidiary-specific factors. Therefore, these three control mechanisms are standardized across the subsidiaries, while at the same time being tailored to each subsidiary.

The tension between the two polar opposites is further discussed by Prahalad & Doz (1987). They find that given convergence, headquarters’ lack of understanding of subsidiary environments can be an impediment to strategic control as it can cause confusion within the organization. Such environments relate, for example, to highly regulated or highly inflated environments. Therefore, it can be very important to adapt the organization to the local conditions; however, such local adaption might force the MNC to duplicate manufacturing locations, which instead increases costs. This inherent conflict often turns the managerial process into an advocacy process, where the subsidiaries provide a country perspective whereas top management and the headquarters’ staff provide a global perspective (Prahalad & Doz, 1987).

Kostova & Roth (2002) discuss how subsidiaries are confronted with two sets of isomorphic pressures, referred to as institutional duality, as subsidiaries are obliged to comply with the parent company’s instructions as well as the institutional patterns specific to its own host country. The adoption of centrally imposed practices comprises a behavioral component, that is the actual implementation of the practice, and an attitudinal component, i.e. the internalized belief in the value of, and commitment to, the practice. Further, the decomposition of adoption into an attitudinal component and a behavioral component implies that subsidiaries can implement a practice whether or not they believe in it, which is termed active and ceremonial adoption respectively. The study by Kostova & Roth (2002) highlights that, apart from external factors which headquarters cannot affect, internal relations can impact the implementation and internalization of centrally imposed practices.

2.3.3 Centralization versus decentralization of decision-making

Centralization and decentralization reflects the extent to which decision-making authority is delegated by headquarters to the subsidiaries (Busco et al, 2008). Thus, it reflects how order is created within the MNC and which responsibilities are assigned to various organizational roles. In their paper, Carter & Cullen (1984) discuss three different perspectives of research on centralization and decentralization of decision-making: hierarchical, concentration and participation. Hierarchical refers to how the extent of power and authority is (or is not) extended

down throughout the organization, and corresponds to Busco's et al (2008) discussion of centralization and decentralization. Concentration refers to the concentration of power and decision-making to a small group of individuals, regardless of where in the organization decision-making authority exists. With the participation perspective, the extent to which members across hierarchical levels participate in the decision-making process is the determinant of centralization or decentralization.

Merchant & Van der Stede (2007) claim that centralization of decision-making to some extent exists at all managerial levels and can be a mean for improving control of an organization. The authors continue that centralization can be used to avoid control problems; however, as not all critical activities can be centralized, it is important to consider other activities (e.g. decentralization). Decentralization, on the other hand, has the advantage of adapting decisions to the conditions faced by the subsidiaries, as decisions are taken locally (e.g. Alonso et al, 2008; Baliga & Jaeger, 1984). This is further highlighted by Kavoori (1992), who claims that, for subsidiaries in developing countries, it is important to have a high degree of independence as such subsidiaries are best informed of local conditions. However, a risk with decentralization is that it might lead to organizationally suboptimal decisions as the manager in charge might not consider the overall organizational picture (Alonso et al, 2008). The tension between centralization and decentralization exists because MNCs want to leverage their competitive advantage globally, which requires a certain degree of centralization, while at the same time, there is a need to adapt to local conditions and markets, requiring a degree of decentralization and local autonomy (Busco et al, 2008).

In their study of how the PMS can be used for integrating MNCs, Busco et al (2008) found that Nestlé Waters used a combination of centralization and decentralization to achieve both global and local targets. The implementation of the new end-to-end profit and loss statement (ETE P&L) provided the subsidiaries, or distributors, of Nestlé Waters with joint structures and practices to improve coordination and cooperation across units. At the same time, by decentralized the management of local brands, the competition between local and international brands was retained. This led to the creation of multiple centers of control within Nestlé Waters, where differing interests had to compete with each other (Busco et al, 2008). Due to the simultaneous management of competing and cooperative interests by the local subsidiaries, the ETE P&L was found to both collapse and maintain the distance between entities, as multiple centers of control and decision-making had to cooperate and compete at the same time. Through the implementation of the ETE P&L, the distance between the distributors and producers was collapsed, which enabled a greater centralization of the management of international brands, i.e. those of the producers. However, the distributors were accountable for the overall performance within their region, including local as well as international brands, which required them to simultaneously manage the promotion of international and local brands.

Similar to the findings by Busco et al (2008), where the distance was collapsed between producers and distributors due to the cooperative interests, Alonso et al (2008) find that a decentralized structure allows divisional managers to initiate communication and coordination themselves, once coordination becomes important. On the other hand, under centralization, Alonso et al (2008) claim that an increased need for coordination will instead strain such communications as divisional managers instead would anticipate headquarters to intervene. Thus, centralization and

decentralization of decision-making has implications for vertical versus lateral relations. Therefore, interlinkages between the tensions will be discussed next.

2.3.4 Interlinked tensions: why decision-making, practices and internal relations should be studied together

The three different tensions presented are all interlinked. For example, centralization and decentralization of decision-making is likely to have effects on whether convergence or differentiation of practices occurs, as proposed by Busco et al (2008): “*Different patterns of vertical and lateral relations and the extent of convergence and differentiation are associated with issues of centralization vs. decentralization*” (p. 106). This is also shown by Kostova & Roth (2002), who find that the extent to which a centrally imposed practice is adopted at subsidiary level is affected by the vertical relationship with headquarters, indicating that vertical relationships can influence the tension of convergence versus differentiation of practices. Gupta & Govindarajan (1991) propose that the degree of decentralization should vary across subsidiaries in line with each subsidiary’s knowledge creation and knowledge dependence in the network of an MNC. Thus, a linkage between the tension of centralization/decentralization and the tension of vertical/lateral relations is suggested. The overlapping nature of the three tensions is why decision-making, practices and internal relations should be studied together.

2.3.5 The idea of managing – rather than resolving – the tensions

In their study of integration of MNCs, Busco et al (2008) find that all three tensions were considered in order to achieve global and local targets at Nestlé Waters. For example, concerning the tension of convergence and differentiation, the standardized ETE P&L was implemented for the international water brands whereas the local brands, owned by various distributors around the world, remained autonomous. As a result, information sharing was increased for the international brands, while local diversity was maintained for the local brands. In addition, to make sure that the distributors did not deprioritize the international brands in favor of higher-margin local brands, “brand champions”, i.e. managers in charge of monitoring and supporting the international brands, were positioned at the distributors to help with some of the tensions between local and international brands. Acknowledgement and adaptation to the two opposites of each tension is referred to by Busco et al (2008) as the *management of tensions*. The key point made by Busco et al (2008) is that top management should not strive to resolve tensions but instead visualize the tension and manage them in order to achieve benefits of global coordination while maintaining local responsiveness at the subsidiary level. Lawrence & Lorsh (1967) also discuss the management of tensions; specifically the tension of convergence and differentiation. Although using a somewhat ambiguous measure of organizational performance⁶, they find that performance of organizations in the industrial environment was high when organizations managed to achieve convergence as well as differentiation simultaneously.

Further, Busco et al (2008) emphasize that an optimal solution might not always be feasible. An example given refers to transfer prices, and the notion that optimal transfer prices may not be feasible – or even desirable. Instead, transfer prices can be used to facilitate communication and

⁶ Lawrence & Lorsh (1967) definition of performance was based on growth in profit and sales over the five years preceding their study. In addition, the percentage of sales of products developed within the past five years was used as a third parameter. Each of the three parameters were scored on a relative scale, and given an equal importance, all scores were added together. The resulting ranking of the companies was used as a measure of performance.

negotiation between subsidiaries and between headquarters and subsidiaries. Thus, it is as much the process as the outcome that is of interest. Further, Busco et al (2008) claim that management of tensions does not necessarily mean that a choice is made between two opposites, but that there is an awareness of their simultaneity and a determination to realize the potential of both perspectives. Thus, if appropriately handled, such a tension can represent a source of learning within the organization as it can encourage cooperation and information exchange.

In order to adapt to both local demands and global strategies, Doz et al (1981) and Doz & Prahalad (1984) suggest that top management should seek to create asymmetry in decision-making. This implies that both perspectives, i.e. the global and the local view, must be embedded within the organization and be represented at the corporate level by subunit managers. However, in order to avoid decision paralysis, one perspective must be favored over the other for each decision without the two sides having to reach consensus. Companies that had managed to adjust to local demands as well as global competitive pressures were those that had realized that such complex and highly variable decision-making processes could not be legislated through traditional structures or rigid rules and procedures. Instead, informal structures were important along with a careful consideration in the decision-making process between managers with product responsibilities and those with territorial responsibilities (Doz et al, 1981).

Further, Doz et al (1981) highlight that as the complexity of decision-making and the need of balancing global strategies and local responsiveness increases, top management should increasingly distance itself from the decision-making process by focusing on two tasks: nurturing a corporate value system that provides a sense of common identity; and legitimizing the duality of perspectives, e.g. those of managers with territorial responsibilities and those of managers with product responsibilities, by embedding them into the organization and create supportive administrative systems. It could be argued that the ETE P&L (Busco et al, 2008) represents such a system due to enabling both the perspectives of the international brands as well as the local brands.

However, to fully understand intra-organizational control implications, inter-organizational relationships are important to consider (e.g. Andersson & Forsgren, 2000; Håkansson & Lind, 2004). These are discussed next.

2.4 Managing across organizational borders

Along with increased globalization, rapid technological transformation and technical complexity of products, the number and importance of inter-organizational relationships has increased (Kraus & Lind, 2007). The trend has thus shifted from striving for organizational autonomy (Gouldner, 1959, as referenced in Aiken & Hage, 1968), to accepting the dependence on external counterparts. Thus, companies have started to move beyond the traditional arm's-length transactions relationships to more extensive and personal ones, which are chosen with the aim of realizing benefits not attainable in the arm's-length transaction (Kraus & Lind, 2007).

Inter-organizational relationships encompass different forms of cooperation, e.g. joint ventures and strategic partnerships (Kraus & Lind, 2007), and can be characterized by cooperation, interdependency and long-term relations among independent organizations (Takeishi, 2001). Such relationships can be formed with either (or both) the aim of gaining increased revenues or

minimizing costs by sharing the fixed costs and risks between companies (Kraus & Lind, 2007). Additionally, these relationships can be a source of competitive advantage and are perceived as the root to success for many firms (Jarillo, 1988). Formations of long-term relationships with key suppliers can also create barriers to entry for new competitors (Kraus & Lind, 2007).

2.4.1 External embeddedness of subsidiaries has intra-organizational implications

Inter-organizational relationships often involve subsidiaries and external counterparts. When such relationships develop, subsidiaries can be said to become externally embedded (e.g. Ghoshal & Bartlett, 1990). Andersson & Forsgren (1996) argue that subsidiaries are embedded in their external relationships, and that the degree of embeddedness is related to the adaptation between the subsidiaries and their direct and indirect counterparts. The higher the external embeddedness, the greater is the likelihood that external influences will affect the subsidiary's behavior. As a consequence, headquarters competes with external subsidiary counterparts for subsidiary control. The authors find that the higher the external embeddedness, that is vis-à-vis customers and other counterparts; the lower the degree of headquarters' control over the subsidiaries, as perceived by the subsidiaries. Similarly, Huemer et al (2009) note that influences of the networks that MNCs are part of compete with ambitions of internal control; a tension which must be acknowledged. Reasoning in similar ways to Busco et al (2008), albeit with a stronger inter-organizational focus, Huemer et al (2009) argue that the firm's success can depend on its productive way of dealing with such tensions, as opposed to avoiding or suppressing them.

Andersson & Forsgren (2000) show that the external technical embeddedness of a subsidiary increases the subsidiary's importance within the MNC with regards to the technology function, e.g. product development (p. 344). The embeddedness is important for headquarters to understand, why the authors suggest that headquarters could employ a broader set of metrics, as opposed to pure economic measurements, to enable a better evaluation of the subsidiaries' relationships. Andersson et al (2002) further show that subsidiaries' technical embeddedness increases their expected market performance and their role in product development within the MNC through knowledge sharing between subsidiaries. In line with what has been proposed above (e.g. Doz et al, 1981; Doz & Prahalad, 1984), Andersson et al (2002) highlight that lateral relations play an important role for knowledge sharing within the organization.

Finally, Andersson et al (2005) discuss how the subsidiary's external embeddedness, and the associated knowledge creation, is affected by controls employed by headquarters. A mode of direct control of subsidiaries, through headquarter expatriates among subsidiary top management, was found to negatively affect local embeddedness, whereas the usage of knowledge development as a part of subsidiaries' evaluation criteria, an indirect control, was found to increase local embeddedness. Thereby, subsidiary embeddedness can be affected by headquarters through the control mechanisms used. On the other hand, Mahlendorf et al (2012) found that external embeddedness has implications for how effective management of subsidiaries can be achieved. Thus, headquarters and subsidiaries seem to both affect and be affected by one another.

The study by Håkansson & Lind (2004) offers an insight into how lateral relationships can be expanded across formal organizational borders through the use of overlapping accountabilities (compare with Frow's et al (2005) study of intra-organizationally overlapping accountabilities). In Håkansson & Lind's (2004) study, the internal performance evaluation of a Key Account

Management (KAM) unit at Ericsson was based on the unit's success in affecting the practices of the customer's organization. In addition, the KAM unit and the production unit at Ericsson had overlapping accountabilities. However, managers of both units seemingly accepted the interdependence of their achieved performances, and noted that it emphasized the importance of influencing other relevant units. Thereby, through performance targets that were not entirely within managers' control, incentives for inter-unit coordination and information exchange were established, both within and across the organizational borders.

The studies referenced above highlight the need to expand the vertical and lateral tension, presented by Busco et al (2008), to also include actors outside the MNC. As noted by Andersson & Forsgren (1996, p. 489-90), the customer can be a particularly influencing external counterpart, why we will focus upon the customer as the external counterpart in the following section.

2.4.2 Customer accounting or customer accountability?

Research on how the relationship with customers should be evaluated has mostly focused on customer profitability. Bellis-Jones (1989) defines one technique labeled customer profitability analysis, which unlike the more commonly used gross margin, takes all costs relevant to a trading relationship into account. These costs can stem from purchasing patterns, delivery policy, accounting procedures and inventory holding (Smith & Dikolli, 1995). Blois (1999) takes a more time-spanning approach and implies that customers should be treated as assets, whereby costs spent on acquiring and maintaining customers are seen as investments. In businesses where aftermarket is an important source of income, a more time-encompassing model such as customer lifetime value analysis (Guilding & McManus, 2002) might better account for the post-purchase events. Lind & Strömsten (2006) combine the customer accounting techniques identified by Guilding & McManus (2002) with various relationship settings, and find that customer accounting techniques differ with respect to what kind of relationship the organization has with the customer. More technologically integrated relationships are surmised to be evaluated using longer time perspectives, such as life time profitability analysis and customer valuation analysis, whereas relationships with less technical interfaces are evaluated on shorter time perspectives. Interestingly, Lind & Strömsten (2006) find that when customer evaluation that considers only the effects from a dyad does not indicate an economically viable relation, a broader perspective is applied to justify a continued relation. As an example, Lind & Strömsten (2006) found that when Ericsson could not motivate R&D investments related to a specific customer solely on the basis of direct revenues from that relationship, Ericsson took into account potential future business that the R&D investment could generate in other business relationships.

However, evaluating customer relationships through quantified measures have been argued to not fully reflect the value of the customer relationship. Vaivo (1999) argues that quantitative evaluation of customers cannot sufficiently capture the tacit practical knowledge that is obtained by the sales personnel through interaction with the customers. Taking one step further, Boyce (2000) warns against using customer valuation techniques as decision-making tools. He claims that through the economic rationalization of the customer, approaches such as customer profitability analysis or customer lifetime value analysis fail to account for the social attributes of a customer relationship, why the focus on financial performance can come at the expense of social impact and social responsibility. Harshly, Boyce posit that the real power of customer valuation lies in "*its ability to effectively obscure understanding of critical matters arising from the trading*

relationship” (2000, p. 672). In line with this, Roberts (2001) notes that vertical processes of accountability lead to individualizing effects, whereas accountability between relative equals is described as a socializing form of accountability.

Cäker (2007) offers an interesting insight into how these two perspectives, an economic focus on the customer relation and a social relation to the customer, can relate to each other within the same organization. The former, the vertical accountability *for* the customer, is contrasted to the lateral accountability *to* the customer. The study by Cäker (2007) includes two separate groups: Alpha and Beta. In the Alpha case, the group was not working according to the delivery performance target set in the formal management system, which management wanted to change. One reason why the situation had occurred was the low general confidence in the accounting system. For instance, production orders were sometimes received after the delivery date had passed, resulting in the undermining of the general confidence in the accounting system. As a consequence, Alpha was circumventing the formal communication channels when interacting with the customer, and the lateral accountability to the customer appeared stronger than the vertical accountability for the customer. The lateral accountability was further strengthened by the fact that the customer had previously been part of the same organizational unit as Alpha, why social connections were still very strong between the personnel of the two units (Cäker, 2007).

In the Beta case, top management had initially promoted a strong focus on meeting delivery target for the group. This was also acknowledged and internalized within Beta, why vertical and lateral accountabilities were aligned. However, following poor financial performance (Beta had failed to deliver profits during the first year), top management wanted to change the focus of the Beta group to be more concerned with financial performance. However, when confronted with the poor financial results, the Beta group used the previous emphasis on customer satisfaction as an excuse for the low profitability. There was a fear of losing further sales if delivery performance was not satisfactory, which fueled the focus on delivery performance. In addition, among the Beta personnel, there was a sense that the demands posed by management on financial performance were unreasonable, which together with adequate performance in other aspects was used to justify the lower financial performance. Hence, this group displayed a high lateral accountability to the customer, but it had arguably gone too far (Cäker, 2007). Further, it was used as an excuse to disregard the vertical accountability for customer profitability.

In both cases, the accountability to the customer had overshadowed the accountability for the customer (Cäker, 2007). However, the Beta case initially showed alignment between vertical and lateral accountabilities, indicating that they are not mutually exclusive. Importantly, Cäker’s (2007) study illustrates the need to consider lateral relations that span across organizational borders when studying control of intra-organizational units, as opposed to the solely intra-organizational considerations offered by studies like Busco et al (2008).

The findings from both cases of Cäker (2007) are summarized in table 1 below.

Case study	Alpha (Cäker, 2007)	Beta (Cäker, 2007)
<i>Lateral accountability</i>	High	High
<i>Vertical accountability</i>	Low	Initially high, then low as management shifted emphasis to profitability
<i>Profitability</i>	Not disclosed	Low
<i>Reasons for low vertical accountability</i>	Low general confidence in the management accounting system; personal relations, common history, and geographical proximity to customer	Strong focus on customer satisfaction; management's profitability demands perceived as unreasonable, adequate performance in non-financial aspects
<i>Performance evaluation</i>	Delivery performance	Delivery performance, financial targets

Table 1: Overview of the cases by Cäker (2007)

2.5 Summary of previous findings: managing tensions including inter-organizational relationships

In the literature review, we have discussed the management of complex organizations. The previous research has shown that in line with increasingly differing external demands, inter-organizational relationships develop (e.g. Kraus & Lind, 2007; Aiken & Hage, 1968). These relationships in turn affect the internal complexities of organizations (Takeishi, 2001), of which the MNC is a particularly complex type of organization (Roth & Kostova, 2003). Research has attempted to explain control of such organizations through agency theory (e.g. Nohria & Ghoshal, 1994; Roth & O'Donnell, 1996; Mudambi & Pedersen, 2007) as well as resource dependency theory (e.g. Gupta & Govindarajan, 1991; Mudambi & Pedersen, 2007) and has lately focused on the use of control mechanisms for the management of such organizations (e.g. Busco et al, 2008; Dossi & Patelli, 2008; Mahlendorf et al, 2012). Busco et al (2008) is a focal study in the field of managing MNCs by surmising that inherent tensions in the MNC, namely lateral versus vertical relations; convergence versus differentiation of practices; and centralization versus decentralization of decision-making, should not sought to be resolved. Instead, in order to integrate the MNC, the tensions should be *managed*.

However, Busco et al (2008) did not consider inter-organizational aspects into their study. As shown by several studies (e.g. Andersson & Forsgren, 1996; Mahlendorf et al, 2012), inter-organizational considerations affect the internal management of organizations. Specifically, Cäker (2007) shows how strong lateral accountability to customers can detract from vertical accountability to top management. In Cäker's (2007) study, the poor financial outcome was due to an unbalanced use of management accounting. Therefore, it would appear as if accountability *to* and *for* the customer in Cäker's study also represents a tension that requires constant management. Thus, we find Cäker's (2007) study to be an interesting complement to Busco's et al

(2008) intra-organizational tensions, in order to add also the inter-organizational perspective. This will be extended in the following section with the conceptual framework.

2.6 A synthesized framework for analyzing tensions within and across organizational borders

In order to examine the research question, a conceptual framework has been synthesized from the studies by Busco et al (2008) and Cäker (2007). While maintaining the tensions between convergence/differentiation and centralization/decentralization, the vertical and lateral relations are expanded to include senses of accountability for and to customers, respectively. This implies that Busco's et al (2008) lateral dimension is extended across organizational borders. Notably, unlike the collectively exhaustive⁷ concepts of centralization/decentralization and convergence/differentiation, the tension of vertical and lateral accountabilities is not necessarily so as it is not confined to the internal organization. Thus, vertical and lateral accountability can be high at the same time (in contrast to the other two tensions), as was shown by Cäker (2007).

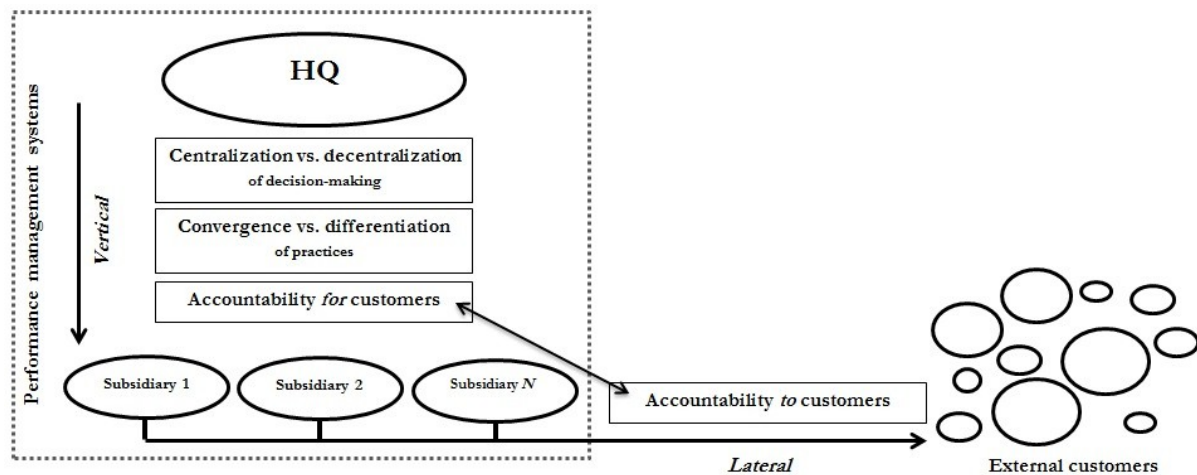


Figure 1: The conceptual framework of intra-organizational characteristics

The framework (illustrated in Figure 1) should be viewed as offering an internal perspective of an organization and the way the organization interacts inter-organizationally with its customers through its subsidiaries. The framework is not intended to be used diagnostically for the studied organization, but rather as a tool for analyzing observed practices and processes. According to Malnight (2001), when developing and integrating internal network structures within MNCs, structuring decisions include the employment of “*various combinations of centralization and decentralization in structural characteristics within process structures to pursue multiple and often conflicting strategic objectives*” (p. 1203). Hence, no general statement about e.g. the degree of centralization of decision-making of the studied organization should be made on the basis of this framework. Rather, specific decisions can be categorized as having been taken on a central or decentralized level. This follows the approach of previous studies (e.g. Busco et al, 2008; Tsai, 2002) where

⁷ When viewed on an *aggregated* level, e.g. centralization and decentralization can be present in the same organization, and the organization can therefore be positioned on a centralization-decentralization continuum. Collectively exhaustive in this case refers to that for the tensions of centralization/decentralization and convergence/differentiation, every organization can on an aggregated level hypothetically be classified on a continuous scale.

individual decisions or individual subsidiary-headquarters relationships have been the focal point of analysis.

Importantly, the framework presumes a case of dispersed customer responsibilities, whereby all interactions with external customers go through the subsidiaries. Thus, headquarters only way of affecting customers is through the subsidiaries. While it, for practical reasons, probably is a common structure in global organizations, it is not restricted to MNCs and may actually not apply to all MNCs. The inter-organizational perspective of the framework considers the lateral relations between the subsidiaries and the customers which are characterized by the degree of accountability to the customers. Internally, the framework considers the vertical dimensions between headquarters and the subsidiaries. The vertical dimensions are characterized by the degree of decision-making delegation, whether practices are standardized or differentiated and the extent of subsidiary accountability for customers toward headquarters. Lateral relations between subsidiaries are not considered in this framework, thereby focusing the attention on each subsidiary as the critical hub between headquarters and the external customers. Together, these concepts constitute what is referred to as *intra-organizational characteristics* in the research question.

Control mechanisms are central in both Busco's et al (2008) and Cäker's (2007) studies: Busco et al (2008) show that PMS can play a key role in managing the intra-organizational tensions, whereas Cäker (2007) argues that the use of management accounting is an important determinant of management's ability to manage the accountability to and for customers. Therefore, the presence of PMS in an organization constitutes an important parameter which permeates the vertical dimension and therefore must be considered. However, rather than constituting an organizational characteristic per se, we adopt a similar view to that of Busco et al and Cäker by considering PMS as tools for managing such characteristics. The definition by Ferreira & Otley (2009), encompassing both formal and informal aspects of control, is what will be referred to throughout this study as PMS.

2.6.1 Operationalizing the research question using the conceptual framework

In the introduction, we referred to the growing importance of aftermarket sales, and specifically, the concept of reverse logistics. Subsequently, we formulated a research question, namely "*How can management's ability to influence external customer behavior be affected by intra-organizational characteristics?*", and specified that management refers to the managers at the headquarters of the aftermarket unit (SpareUnit) of the studied sub-division, and that external customer behavior refers to how well customers comply with the requirements of reverse logistics. Having presented previous research on the topic of MNCs, we now define intra-organizational characteristics using studies of Busco et al (2008) and Cäker (2007). In particular, Busco et al (2008) refer to the management of tensions as the process of integrating an MNC. However, as these tensions are inherent traits of the MNC and should be continuously managed rather than resolved, we argue that these tensions can be used for characterizing an MNC at a given point in time. Through the incorporation of Cäker's (2007) dimensions of accountability in the conceptual model, intra-organizational characteristics are in the following study understood as: vertical and lateral accountabilities within the MNC, convergence and differentiation of practices throughout the MNC, and how decision-making is centralized or decentralized. These are operationalized as:

- Vertical versus lateral accountabilities: How do the subsidiaries relate to the external customers vis-à-vis headquarters? In particular, how do they manage to satisfy external customers while still satisfying headquarters' demands?
- Convergence versus differentiation of practices: What parts of subsidiaries operations relating to customer interactions and the reverse logistics process are standardized across the subsidiaries, and what parts are left to the subsidiaries themselves to develop? In addition, how much do the non-standardized practices vary?
- Centralization versus decentralization of decision-making: Where are decisions, with regards to the reverse logistics process, taken within the organization?

2.6.2 How this thesis contributes to theory

In the literature review, management of complex organizations has been introduced along with our conceptual framework. This review has identified a number of gaps in the current theory, where we in particular find that there is a lack of research on how inter-organizational characteristics affect the intra-organizational control. By selecting a relatively new phenomenon to study, namely reverse logistics, this study aims to contribute to the current theory by examining a flow where the organization is dependent on their customers in a different way than they are in a regular sales flow. Thus, we seek to understand how managers ability to manage the organization across the organizational border – thus, managing the customer's behavior – can be affected by intra-organizational characteristics. Our contribution to theory is to further examine the management of inherent MNC tensions through expanding the lateral relation as presented by Busco et al (2008) across organizational borders. We aim to expand both the theory of Busco et al (2008), through incorporating an inter-organizational aspect, and Cäker (2007) by further examining how organizational units handle such multiple objectives. Summing up, we aim to expand the current knowledge of how to manage a complex organization in a setting where management wants to control also an inter-organizational party, namely the customer.

3. Research methodology: case study across organizational levels

The following methodological section will describe and motivate how the study was conducted. This section is divided into six different parts. First, the ontological and epistemological assumptions of this study are discussed, where the main view is reality as a contextual field of information. In the second section, the selected research approach, i.e. the in-depth case study, is discussed. This is deemed useful in this case, due to the relative uniqueness of the case as the case study method is useful for interpretive studies. Additionally, the case company, InduComp and the unit of study, SpareUnit, is presented and motivated. In the third section, the pre-study is discussed which was performed in order to give the researchers a basic understanding of the reverse logistics process. This further helped the researchers when putting together the interview schedule due to being better informed. In the fourth section, the data collection method is discussed. The data collection was mainly performed using semi-structured interviews, which were complemented by internal documentation from SpareUnit. Here, also the selection of interview subjects is discussed where the researchers have performed twelve interviews with personnel at the LBUs as well as performed twelve (ten excluding pre-study interviews)

interviews with personnel at SpareUnit HQ. In the fifth section, the data treatment and data analysis is discussed. The data was immediately noted during the interviews, and then compared, along with the overall impression, between the researches in order to ascertain that the researches had made the same interpretations. Additionally, it was discussed whether the interview questions had been interpreted in the intended way, if the interview subject was suitable for answering the questions and if another interview was required. With regards to data analysis, data was sorted into themes in order to find patterns and simplify the following analysis.

In the sixth and final section, reflections on the research quality are provided. For example, it is discussed that the findings of this study are limited to the theoretical generalizability. Summing up, the following section will provide the reader with background information to help the reader to be able to judge the reliability and validity of this study.

3.1 The ontological and epistemological assumptions of the study: reality as a contextual field of information

Tomkins & Groves (1983) argue that it is important for accounting researchers to be aware of and make explicit the ontological assumptions underlying their research, as the ontological and epistemological position taken by the researchers will have methodological implications for the study (p. 367).

The research question can be said to have a contextual framing, by asking how an organization's characteristics can affect management's ability to influence external customer behavior. The contextual aspect lies partly in the fact that every organization has its own unique characteristics, meaning that answer(s) to this research question will only apply to the particular organization during the time when the study was conducted, and partly in the assumption that humans are more than responding mechanisms and therefore affect reality due to the way they receive, interpret and act on information within their context. Thereby, it is implied that reality as a concrete structure is not envisaged by the researchers, but rather as a contextual field of information. As a result, this study positions itself in the middle of the objective-subjective continuum (Morgan & Smircich, 1980), and can be described as pragmatic (Lukka & Modell, 2010). Practically, this implies that all viewpoints have been given equal importance and information from all sources has been considered on an equal basis. Additionally, the pragmatic approach implies an emphasis on practical acceptance as opposed to underlying intentions.

3.2 An explanatory single case study: studying a sub-division of an MNC

3.2.1 The case study enables accounting for social phenomena

This study presents an attempt to explain a phenomenon, namely *how* intra-organizational characteristics affect management's ability to influence external customer behavior. Such a social phenomenon requires an in-depth description, for which the case study is a suitable method (Yin, 2009). Further, the case study is useful when the boundaries between the phenomenon and the context are not clearly evident, as it can explain presumed causal links, describe interventions and the real-life context in which a phenomenon occurs. Another advantage of the case study lays in its ability to account for a large variety of sources of evidence, i.e. documents, artifacts, interviews and observations (Yin, 2009). A *single* case study was deemed suitable as the studied case represents a somewhat unique setting, as will be described below. Yin (2009) differentiates

between embedded and holistic case studies, where the former involves more than one unit of analysis and the latter focuses only on the global nature of the organization. This case study will encompass several units of analysis by focusing on SpareUnit HQ as well as subsidiaries, why it can be characterized as an embedded case study.

3.2.2 An explanatory case study with an abductive approach to theory generation

According to Ryan et al (p. 44, 2002), explanatory case studies attempt to *explain* the reasons for observed accounting practices. This study presumes that intra-organizational characteristics in some ways affect management's ability to influence external customer behavior, and instead directs the attention to how this relationship can be understood. It is therefore best described as an explanatory case study.

The study is to be considered interpretive in line with Ryan's et al dichotomy of positive and interpretive research (2002), as the case study hopes to contribute to a theoretical, rather than a statistical, generalization. In an interpretive case study, "*only the specific circumstances of the case can be used to explain*" (p. 147); an assumption inherent in the formulated research question. Interpretive research is thereby concerned with understanding what is observed, rather than anticipating what will happen next. Ryan et al (2002) claim that there is a two-way interaction between theory and observation in interpretive research; theories are used to explain empirical observations, but when theory cannot sufficiently explain empirics, the observations are used to modify existing theories. Theory is thus both the input and the output of the research process. Thus, such an approach incorporates also the understanding of the researcher (Alvesson & Sköldberg, 1994). This is commonly referred to as an *abductive method* of theory generation, which combines the deductive and inductive methods (e.g. Alvesson & Sköldberg, 1994; Patel & Davidson, 2011). Thereby, the criticism against deductive reasoning that existing theory can obstruct the formulation of new, interesting theory is alleviated, as is the risk of a large spread of theory associated with a strictly inductive approach (Patel & Davidson, 2011). The abductive reasoning follows Habermas' view, as referenced in Ryan et al (2002, p. 32 f), that for social sciences, data cannot be separated from theory and facts can be reconstructed in the light of theory. According to Habermas, social science theories are judged on their ability to understand and interpret meaning.

3.2.3 Studying a sub-division within a matrix-structured multinational corporation

According to Ryan et al (2002), the selection of case study should reflect needs of theory development (p. 151). Having formulated the research question, the case study chosen for examining the question is a large MNC featuring a matrix structure. There were several reasons for why this case company was selected. First, the researchers became aware of a suboptimal functionality of the reverse logistics program at the aftermarket unit SpareUnit, which was instantly recognized as a phenomenon including both intra and inter-organizational aspects. Secondly, the authors were asserted full access to SpareUnit by a top manager with whom one of the researchers had a professional relationship⁸. Thirdly, the multinational nature of the case company was thought to provide an excellent ground for theory testing and generation.

Roth & Kostova (2003) highlight three research opportunities presented by the MNC; the possibility to study a phenomenon specific to MNCs; to further validate or expand established

⁸ By the time the data gathering began, said manager was no longer employed at this position. As a result, none of researchers had any affiliation, professional or otherwise, with any employees at the case company.

theories; and to develop new theory, where the last opportunity is argued to have the highest potential. Similarly, Egelhoff (1991) argues that MNCs “*presents organizational problems that lie at the forefront of organization theory and challenge the capacities of existing organization theory*” (p. 341), why it is an important organizational form to study. As this study takes an abductive approach to theory generation, the ability to validate, expand and develop new theory is therefore an important quality of the MNC. Further, Roth & Kostova argue that the MNC provides a context which is characterized by heterogeneity and complexity, which can be studied contextually, intra-organizationally and at the individual level. In addition, an MNC is typically comprised of different units residing in different environments, thereby providing conditions of high variability and thus opportunities to examine the generalizability of theories or to expand them. According to Roth & Kostova, the complexities of the MNC makes theory developed within it to be more likely to be generalizable compared with attempts to generalize in the other direction. Hence, they refer to the MNC as the “general case”, as opposed to the “special case” represented by purely domestic companies (p. 898).

Gupta & Govindarajan (1991) share the belief that MNC offer a good platform for theory development. They posit that constraints imposed by e.g. geographical distance and conflicting demands of different host governments can be expected to make the realization of synergistic gains more challenging for MNCs when compared to divisionalized domestic corporations. This greater complexity makes the MNC, as a network of transactions, a particularly rich context for theory development, while enabling the transfer of such theories to other types of organizational contexts due to the network perspective. In line with this, the conceptual framework presented above captures how information from the periphery (i.e. customers) reaches headquarters through the subsidiaries, thereby displaying network characteristics. However, as the MNC represents one organization, this study cannot be described as a network study in the inter-organizational sense of the word.

Ryan et al (2002) posit that one limitation of the case study is the difficulty of drawing boundaries around the subject matter of the case. They suggest that one way, often used by case researchers, is to place limits on the area of study and make those limits explicit. The importance of such a limitation is raised by McCann & Ferry (1979), who point out that studies that have used the total organization as the referent system risk losing important information by aggregating data to that level. In line with this, this study is confined to a sub-division consisting of two units: production unit (ProdUnit) and aftermarket sales (SpareUnit). However, as the reverse logistics process is solely related to the latter, only SpareUnit has been the focus of this study. More specifically, SpareUnit HQ and the sales and service dedicated subsidiaries, in the following referred to as local business units (LBUs), have been studied.

The results of the study should therefore not be extrapolated to other sub-divisions, divisions or the entire organization. It follows that management, as referred to in the research question, will in this study be operationalized as managers of SpareUnit, unless stated otherwise. Another demarcation is the temporal one, whereby this study will primarily focus on observations contemporary to the case study. An illustration of the organization, with the studied unit highlighted in bold italics, is provided in figure 2.

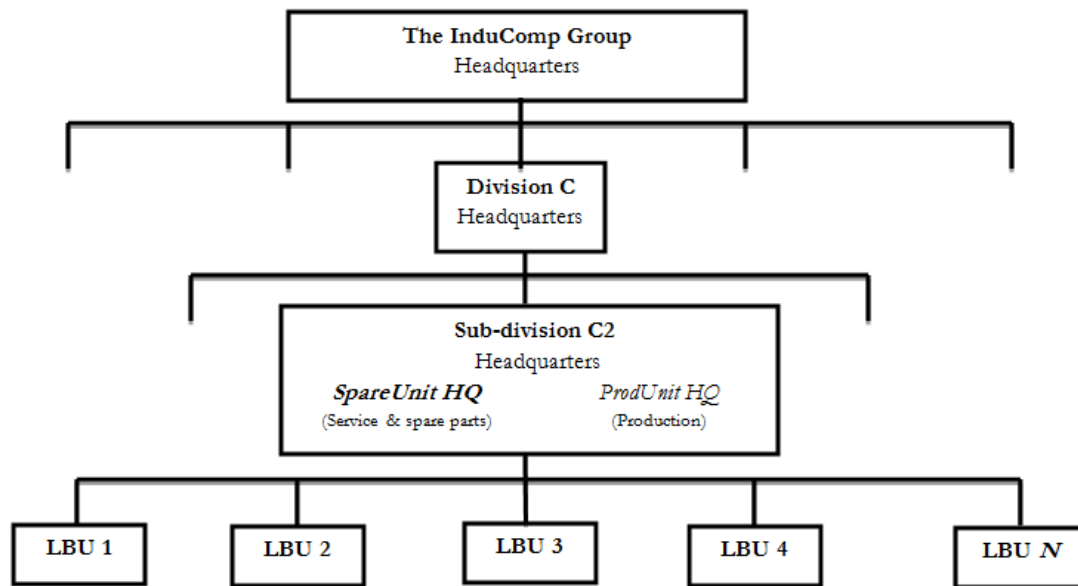


Figure 2: Organizational chart of InduComp and SpareUnit

3.3 Pre-study: initial exploration of the case organization and its reverse logistics process

Yin (2009) warns that a risk with single case studies is that the case might turn out not to be what it initially was thought to be, and suggests a careful investigation of the potential case to alleviate the risk of misrepresentation. Further, Patel & Davidson (2011) suggest that a pre-study can be essential if special-knowledge is needed, i.e. knowledge that cannot be gathered from public or secondary sources. To reduce the risk of misrepresentation, and as a result of the proprietary nature of the process studied at the case organization, a pre-study was considered necessary.

The researchers conducted two pre-study interviews with managers at SpareUnit HQ prior to the main study in order to get acquainted with the organization and its reverse logistics process. During a total of three and a half hours, the researchers inquired about general information of the organization, e.g. strategies and values, organizational structure, lines of responsibility, performance targets and evaluation, but also specific information regarding the reverse logistics process employed by SpareUnit. The researchers were keen on getting an in-depth understanding of the process as it was intended to work, and what issues SpareUnit HQ perceived with regards to the process. It quickly became apparent that the reverse logistics process was a sensitive issue⁹, and that SpareUnit HQ was not entirely satisfied with how the LBUs were conforming to the guidelines for reverse logistics process. In fact, during the pre-study, an external consultant was contracted by SpareUnit HQ in an effort to improve the reverse logistics process.

Due to the sensitive nature of the reverse logistics, the pre-study was extended to include the perspectives from one of the LBUs in an attempt to depolarize the information gained from SpareUnit HQ before conducting the main study. The LBU perspective was obtained by listening in at a telephone conference between the external consultant and the Warranty & Reverse Logistics Manager at the German LBU, during which the reverse logistic process was thoroughly

⁹ For instance, it was explained that headquarters had the possibility to apply financial consequences on the LBUs when LBUs did not conform to established routines. However, this had not been stringently enforced in the past, making it a somewhat discretionary punishment.

discussed from the LBU's perspective in order for the external consultant to get a comprehensive understanding of the local reverse logistics process.

Apart from learning about the tensions between SpareUnit HQ and the LBUs regarding the reverse logistics process, the pre-study alerted the researchers of several technical issues in relation to the reverse logistics process. For instance, the existence of two different delivery methods of spare parts to the customers and their respective implications for the reverse logistics process, was brought to the researchers' attention. As a consequence, all interviewed LBUs were asked about the relative use of the two delivery methods during the main study, and how the use of the two methods impacted on their ability to conform to the reverse logistics process. The technical insight gained from the pre-study allowed the researchers to ask more refined questions during the interviews, which helped to build rapport during the interviews. Additionally, the better knowledge of the process resulting from the pre-study allowed the researchers to interpret information as it was collected from the very first interview during the main study.

3.4 Data collection primarily through semi-structured interviews

The data collection for the case study has followed Patton's (1990) three identified primary data collection tools of qualitative research, namely qualitative interviewing, document analysis and participant observation (p.10). The main source for gathering information has been qualitative, in-depth interviews. As suggested by Yin (2009), such interviews are useful by allowing the researcher to get an insight into facts of a matter as well as the interview subjects' opinions about such a matter. As the researchers have sought to understand the reverse logistics process and attitudes towards it, as well as how this process is affected by intra-organizational characteristics, the ability to appraise opinions has been a particularly important reason for conducting interviews (Rowley, 2012). In addition, the researchers assessed that potential interview subjects would not have been as receptive to other data gathering approaches like questionnaires (Rowley, 2012), especially due to the limited opportunity to voice potential concerns not explicitly asked for.

3.4.1 The selection of interview subjects: equal amount of interviews with HQ and subsidiaries

The selection of interview subjects representing SpareUnit HQ has been based on employees' formal roles and the associated likelihood that they would be able to enrich the researchers' understanding of the studied subject. Additionally, some interview subjects were chosen by referral from already interviewed subjects, known as *snowballing* (Rowley, 2012). In total, twelve different persons from SpareUnit HQ were interviewed, whereof one was interviewed only in the pre-study.

From approximately 50 LBUs, ten were selected for interviews for this study. The selection of LBUs has been based on two criteria. First, the five largest LBUs with regards to the volume of parts that each LBU was supposed to have sent back within the reverse logistics process during the period January 1st 2012 to January 31st 2013 were selected. In addition, all LBUs were assessed according to how many parts they had sent back as a percentage of all parts that should have been sent back. Six additional LBUs, the three with the highest percentage of returned parts and the three with the lowest, were selected for interviews. However, one of the LBUs with a high percentage of returned parts declined a telephone interview due to language barriers, why ten LBUs were interviewed in total. The number of interviews conducted with each LBU depended on the way responsibilities were organized within the specific LBU. For some LBUs,

responsibilities were more overlapping than for others (i.e. at one LBU, a single person could be responsible for both the warranty side and the sales of spare parts, whereas another LBU could allocate these roles on two different persons), why some LBUs have been interviewed twice in order to provide the researchers with a comprehensive understanding. Thus, the priority was to gather the same amount and width of information from all LBUs, rather than conducting an equal number of interviews with all selected LBUs. Due to the limited nature of this study, it has not been feasible to conduct more than one or two interviews with each LBU. Caution has therefore been paid to interview warranty and service managers, to ensure that the interview subjects had the appropriate insight and involvement in the reverse logistics process.

A total of 24 interviews have been conducted for this study, of which two were pre-study interviews. Kvale (1997) proposes interviewing as many people as is necessary to obtain the knowledge sought. While more interviews with each individual LBU had been desirable, this study incorporates interviews with personnel with varying roles, experiences and backgrounds at both headquarters and the LBUs.

3.4.2 Conducting the interviews: semi-structured approach using slightly varied interview schedules

The interviews were organized as follows. First, interviews with employees at SpareUnit HQ were conducted to gain an understanding of the unit's structure, how they want the reverse logistics process to work and what issues they were experiencing. Thereafter, the bulk of all interviews with the LBUs were conducted with the aim of understanding and contrasting their perceptions with those of SpareUnit HQ. Towards the end of the data collection phase, interviews with high-ranking officers were conducted at SpareUnit HQ. These were left until the end to enable the researchers to take into account the opinions of both lower level SpareUnit HQ and LBU personnel when discussing the reverse logistics process. A detailed list of the conducted interviews is provided in the appendix. By conducting a total of twelve interviews at SpareUnit HQ, and twelve interviews with representatives of ten different LBUs, the researchers have sought to obtain an exhaustive understanding of how the different roles present at SpareUnit HQ, and the various LBUs, regard the reverse logistics process.

All interviews involving representatives of SpareUnit were conducted in Swedish, whereas all other interviews were conducted in English – the official corporate language of the organization. While the two pre-study interviews could best be described as open conversations, the following 22 interviews followed a semi-structured approach (Kvale, 1997; Rowley, 2012), i.e. they were neither open conversations nor followed a strictly structured questionnaire (Kvale, 1997). Structure relates to the “space” within which the interview subject can respond, where a fully structured interview leaves the respondents with limited space within which to reply and thus possible alternative answers can be predicted (Patel & Davidson, 2011). Semi-structured interviews can take on a variety of forms in order to accommodate the interview subject, for example by adapting the questions, varying the number of questions and the order of the questions (Rowley, 2012). By using semi-structured interviews, the researchers have sought to allow for the interview subjects to speak freely on each topic discussed, while ensuring that the conversation covered the information needs perceived by the researchers.

Interview schedules were drafted on the basis of the information gained from the pre-study. These schedules were designed in accordance with Rowley's (2012) suggestion of focusing on

certain topics of interest, thus containing a few main questions, with a number of sub-questions. The interview schedule with the main topics and example questions is found in the appendix. Concluding the interviews, the interview subjects were always asked if there was anything else that they felt important to bring up relating to the topics discussed, in order to ensure that all information was exhausted. The interview schedule was continuously refined throughout the data gathering period in order to account for new information and increase the precision of the questions. However, the intention has been to affect the interview schedule to as little extent as possible in order to increase comparability of the interviews. As the interviews conducted at the headquarters involved persons with varying responsibilities and hierarchical positions, the interview schedules were necessarily less standardized compared to those used for interviewing representatives of the subsidiaries. On the other hand, the higher level of standardization of the subsidiary interview schedules, made possible by the fact that interview subjects at each subsidiary largely had the same responsibilities, allowed for comparison and contrasting of the information gathered from the subsidiaries.

As the reverse logistics process was already in the pre-study identified as a sensitive issue due to conflicts of interest between SpareUnit HQ and the LBUs, it has been important for the researchers to emphasize that the interview was not conducted on behalf of SpareUnit HQ in order to gain trust from LBU representatives. Therefore, the researchers have made sure to point out that the interview should be seen as a chance to voice possible concerns about the process. Further, confidentiality was assured at the beginning of each interview in an attempt to increase the interview subject's confidence of disclosing information. Caution was paid to avoid leading questions during the interviews, in order to influence the interview subjects to the least extent possible. Additionally, the researchers sought to pay close attention to the tone of answers, physical gestures where possible and other expressions, all of which constitute informal evidence (Ryan et al 2002, p. 154 f).

To the extent possible, interviews have been performed on site in person, allowing the researchers to observe reactions, facial expressions and body language. However, due to time and monetary constraints, all interviews with the geographically dispersed LBUs have been conducted by telephone. When conducting telephone interviews, some rapport and richness of the interaction might be lost as observation is not possible (Bryman, 2012, p. 215; Rowley, 2012). At the same time, telephone interviews have the advantage of potentially removing some interviewer bias as the interviewers' personal characteristics, which could affect the interview subject, cannot be observed by the interview subject (Bryman, 2012, p. 214). However, as interviews with SpareUnit HQ personnel were conducted face-to-face, but those with the LBUs were not, a risk of misrepresentation is available. In an attempt to alleviate this risk, the interviews with the LBUs have generally lasted over an hour each, which has allowed enough time to compensate for the lack of rapport and richness associated with face-to-face interviews.

Group interviews have been avoided to the extent possible in order to make sure that all interview subjects get an opportunity to express their opinions. Additionally, Trost (1993) argues that interviewing several persons at the same time might result in that opinions or behaviors that none of the group-members actually are sympathizing with are expressed. Out of a total of 24 interviews, three involved more than one interview subject. In one of these cases, the interview subject had invited three additional persons, whom he judged were better equipped to answer

some of the questions on the topic of the reverse logistics process. In the second case, the researchers had asked one manager at the headquarters to set up an interview with someone he considered to have the appropriate knowledge. In the end, two interview subjects with the same responsibilities were invited to the meeting.

Both researchers were always present during the interviews. According to Trost (1993), the presence of more than one researcher provides the interviewers with an increased understanding than if only a single interviewer would have been on site. To the extent that permission has been given by the interview subjects, the interviews have been recorded. The decision to record has both advantages and disadvantages; on the one hand, it allows the interviewers to fully concentrate on asking questions; on the other hand, some interview subjects who agree to being recorded might be disturbed by it and be inhibited as a result (Trost, 1993). However, Trost argues that interview subjects tend to forget that they are recorded, which is probably even more likely when conducting telephone interviews, which represented the bulk of all interviews. The interviews have averaged one hour nine minutes, allowing sufficient time for excursions and detailed explanations.

3.4.3 Other sources used for data collection: internal materials and observations

Apart from in-depth interviews, internal documents, presentations and spreadsheets have been reviewed in the research process, which have been useful in order to corroborate evidence gathered from the interviews (Yin, 2009). These documents have covered both information on the sub-division's operations (e.g. presentation material), process mapping of the reverse logistics process (e.g. flow charts), and performance related to the reverse logistic process (e.g. calculations of the financial effects due to suboptimal reverse logistics processes). Additionally, externally available material, e.g. the latest annual report, was used as a way for the researchers to acquaint themselves with the case organization prior to conducting the case study. Notably, some of these sources of information, e.g. the flow charts, related to how top management envisaged processes or structures, rather than providing evidence of how it actually works. Thus, as stressed by Yin (2009), the researchers have been careful to not to confuse the information in these documents with what has been discovered through interviews. The documents have thus been regarded as a complement in describing how the process is intended to work – not how it actually is working.

In addition, direct observations at SpareUnit HQ allowed the researchers to observe physical artifacts. In particular, while being given a tour around the workplaces at SpareUnit HQ, the researchers became aware of the existence of a small service emergency team of highly competent service experts operating out of SpareUnit HQ. They had a worldwide responsibility to attend technical matters when the LBUs service technicians were not able to solve the issues. This observation added to the researchers understanding of the strong customer orientation throughout the SpareUnit organization, which was also communicated in the interviews.

3.5 Data treatment: comparing reflections and sorting data in themes

When processing qualitative data, the aim is to obtain a deeper knowledge than the, usually fragmented, knowledge received with quantitative methods (Patel & Davidson, 2011). During each interview, reflections were noted immediately by both researchers. After each interview, the researchers have compared notes, in order to increase *interjudgmental reliability* (Patel & Davidson, 2011), and impressions in order to quickly work out if the interview questions have been

interpreted in the intended way, if the interview subject was suitable for answering the questions and if another interview was required. Specifically, the researchers have sought to be aware of the various perspectives represented by the interviewees and to apply perspectivist subjectivity (Kvale, 1997, p. 192) by analyzing the information from the different perspectives represented by the involved parties, i.e. headquarters and LBUs. Such continuous analysis of collected data has been suggested as a way to keep track of whether an interview brings new ideas on how to move further, e.g. if some questions were missing in the interview (Patel & Davidson, 2011).

Having understood from the pre-study that tensions between SpareUnit HQ and the LBUs existed, it was important to initially organize the data according to which standpoint was expressed to allow contrasting and comparison of the respective opinions. In order to simplify data analysis and overview of the data collected, data was then sorted according to *themes* (Rowley, 2012), which Miles & Huberman (1994, p. 245-246) propose as one of twelve tactics for generating meaning from data. Five main themes were identified: general information about the organizational units (i.e. SpareUnit HQ and LBUs); background information regarding the reverse logistics process; the external relationships between LBUs and customers; the flow within reverse logistics between LBUs and SpareUnit HQ; and evaluation of the reverse logistics. Further, due to the several steps in the reverse logistics process, key sub-themes (Rowley, 2012) were identified and placed under the main themes. An example of a sub-theme was the local conditions prevalent in the home countries of the LBUs, which affected the way the external relationships between LBUs and customers were conducted. Additionally, these themes served as a basic structure for the presentation of the empirical data.

In an effort to increase the quality of the study, the empirical data is presented separately from the analysis (Patel & Davidson, 2011). However, this does not imply that the empirical data is free from analysis. Roberts & Scapens (1985) argue that empirical data must be recognized as partial, selective and potentially distorted by nature. Analogizing empirical data as a picture, they state that *“The picture has boundaries; what is missing from it may be as significant as what is visible in it. Furthermore, the picture will have been composed by the photographer, who although unseen has had a decisive impact on the recorded image.”* (p. 454). Their message is clear: empirical data cannot be truly separated from analysis, as what is presented as data has been done so for a reason. This manifests itself for instance when sorting and recollecting the data by categories. However, a risk of integrating empirics and analysis is that observations not supporting the analysis are left out, and rival explanations are thereby not addressed. While not removing the inherent subjectivity of a qualitative case study, it was the researchers’ opinion that a separation of empirical data and analysis would increase the quality of the study by attempting to visualize the line of thought applied by the researchers in arriving at the analysis and conclusion.

3.6 Reflections on research quality: multiple data sources to enhance construct validity

Research quality is often discussed in terms of generalizability, validity and reliability (e.g. Ryan et al, 2002; Yin, 2009). The case study method has implications for each of these concepts, which have been discussed by several researchers (e.g. Kvale, 1997; Ryan et al, 2002; Yin, 2009; Patel & Davidson, 2011; Lukka & Modell, 2010; Trost, 1993). The following section will discuss the

abilities and limitations of the case study, and how the researchers have attempted to improve the overall quality of the study.

3.6.1 Theoretical rather than conceptual generalizability

Researchers have noted that the case study method provides limited basis for generalization (e.g. Kvale, 1997; Ryan et al, 2002; Yin, 2009). The single case study, in particular, is subjected to the risk that the study is a unique case, and that artifactual conditions surrounding the case distort the studied phenomenon. These risks, if realized, would result in a lower degree of generalizability. In response to the criticism of a low degree of generalizability, Yin (2009) argues that a case study, like an experiment, is generalizable to theoretical propositions but not towards populations and universes (p. 15). This follows from the notion of a contextual reality, where each case will be framed in its own specific context, and therefore generalizing theories for analysis rather than generalizing findings per se is what will contribute to the development of this research field. Hence, despite the narrower scope of a single case study, it can nevertheless represent a significant contribution to knowledge and theory building (Yin, 2009).

3.6.2 Inherent subjectivity and the consequences for validity and reliability

In positive accounting research, quality is commonly evaluated on the basis of its validity and reliability. Internal validity is dependent on how much control for variables and circumstances has been achieved in the study, where the higher the control achieved, the higher the internal validity. External validity, on the other hand, refers to how readily generalizable the results of the study are to the general population, e.g. other organizations. Reliability is the extent to which evidence is independent of the person using it (Ryan et al, 2002).

An often voiced criticism of the case study method is the unscientific approach, i.e. that case studies are subjective and therefore lack external validity and reliability (e.g. Kvale, 1997; Ryan et al, 2002; Yin, 2009). However, a study independent of the researcher(s) is not coherent with the ontological and epistemological approach of this study. As Ryan et al (2002) note, “*reliability implies an independent, impersonal investigator, and validity implies an objective reality – both of which are likely to be meaningless in interpretive research.*” (p. 155). As interpretive research recognizes the influence of the human being as an interpreter, the idea of an objective reality is rejected per default. However, this does not preclude efforts to increase the validity and reliability of the research in an interpretive research framing of these terms.

3.6.3 Validity in interpretive research

Lukka & Modell (2010) argue that a “crisis of validity” is prevailing within interpretive management accounting research. As a way to improve the quality of interpretive research, “thick descriptions” stemming from emic accounts are proposed as a way to move studies from purely understanding observations to explaining them. Patel & Davidson (2011) refer to communicative validity and state that any interpretations made by the researchers should be built up to enable readers to form their own opinion regarding the credibility of such interpretations, which is achieved through “thick descriptions”, i.e. exhaustive descriptions of the case and findings. In line with these propositions, the researchers have sought to describe the empirical data and interpretations in depth, to allow for the readers to make their own conclusions.

Yin (2009) decomposes validity into construct validity, internal validity and external validity. Construct validity is ensured by identifying correct operational measures for the concepts being studied (Yin, 2009). As far as this case study is concerned, much effort has been spent on getting hold of relevant interview subjects in order to establish a chain of evidence. Representatives of multiple hierarchical levels as well as personnel with different positions at similar hierarchical levels have been interviewed at SpareUnit HQ, and a number of LBUs have been interviewed. Furthermore, data triangulation enhances construct validity as multiple sources of evidence essentially provide multiple measures of the same phenomenon. Beside the interviews conducted, the researchers have had access to internal documents, presentations and spreadsheets, which have all been used to corroborate information obtained through interviews. In addition, direct observation has been possible during the several visits to SpareUnit HQ. However, the researchers have stopped short of sending out transcripts of interviews to the information providers. This decision was based on Kvale's (1997) argument that transcriptions are not copies or representations of the original meanings as conveyed during interviews, but merely decontextualizations of conversations. As reality is assumed to be a social construct that must be understood within its context, and knowledge is created by the way humans receive, interpret and act on information, data might be distorted if the interview subjects were to be given a chance to review and revise transcripts from the interviews. Therefore, sending out transcripts was not considered to align with the ontological and epistemological orientation of this study.

Another way of achieving contextual validity is through researcher triangulation, i.e. using multiple researchers to reduce the bias of individuals (Ryan et al, 2002, p 156). The researchers have attempted to reduce such bias by making sure that both researchers were present during all interviews, thereby enabling two interpretations rather than one. While two researchers do not make triangulation possible in the true sense of the word, it should reduce some researcher bias nevertheless.

Internal validity for explanatory case studies becomes relevant when causal relationship are sought by the researchers, whereby certain conditions are believed to lead to other conditions – in contrast to spurious relationships (Yin, 2009). To address internal validity, the researchers have sought to look for patterns in the case data, offer thick descriptions of observations and analyses, and be open-minded for rival explanations in line with Yin's (2009) recommendation. Finally, Ryan et al (2002) argue that instead of external validity, interpretive research should be concerned with *transferability* of the study's findings. This is achieved by generalizing theory rather than findings. The concluding section of this study will discuss the domain to which this study's findings can be generalized, which is a way of addressing transferability.

3.6.4 Procedural reliability

The concept of reliability within positive accounting research assumes that a measurement at one point in time should give the same result also at a new measurement point (Trost, 1993). However, the problem with such a definition is that a static relationship is assumed. Interpretive research, on the other hand, is concerned with how reality is affected by the way people receive, interpret and act on information, and as personnel come and go, there can be no reliability in that sense of the word. On the contrary, changes *are* what is focused on in qualitative interviews, and constancy is therefore not crucial (Trost, 1993).

Ryan et al (2002) propose that one way of striving for reliability within interpretive research is to aim for procedural reliability, which is achieved by a good research design that addresses clearly specified research questions, has a comprehensive research plan, all evidence is recorded in a coherent set of field notes and the case analysis is fully documented. In line with this, a research question has been phrased, a research plan, including a pre-study, has been created, whereby several interviews were first conducted at SpareUnit HQ, where after interviews with LBUs took place. The study was concluded with several interviews with senior managers at SpareUnit HQ. All interviews have been recorded, where permission was given, and the case analysis has been presented elaborately, as to offer thick descriptions and explanations.

In this methodological section, we have discussed the methodological choices for our study, in order to help the reader assess the reliability of this study. Additionally, this aids any researchers wishing to replicate this case study or validate its results. However, exact replication might prove challenging as the answers from the interviewees might change over time due to changed preferences or other factors out of control for the researchers. This might be particularly true in the case of SpareUnit, as the case study was performed closely after a new invoicing approach was implemented, why the effects of such invoicing were not fully known during the study. Thereby, the opinions of the interviewers might change as the time goes by and the personnel become more accustomed to this process.

4. Empirics

In the section below, we will present the empirical findings from our case study. The findings will be divided into five main sections, beginning with an introduction of the case organization InduComp and in particular, the case study unit SpareUnit. In the next section, an introduction to the reverse logistics process, used both for warranty parts and so called exchange parts, at SpareUnit is provided. In the third section, the reverse logistics process between the customer and the LBUs is described. Here, it is found that the main reason for delayed reverse logistics returns is due to issues concerning the customer, such as the customer forgetting to return the parts to the LBUs. In the fourth section, the internal flow between the LBUs and SpareUnit HQ is discussed. Noteworthy in this section are differing perceptions among SpareUnit HQ and the LBUs with regards to the newly implemented stringent invoicing system and the possibility for the LBUs to return the parts on time. In the fifth section, the evaluations (or lack thereof) are discussed, both at SpareUnit HQ and at the LBUs. Finally, a short summary is provided before moving on to the analysis.

4.1 SpareUnit: an aftermarket unit within an industrial MNC

In the following case description, HQ as depicted in the framework will refer to SpareUnit HQ (refer to figure 2) where the case study was performed. The subsidiaries are in this case represented by local business units (LBUs), which constitute local sales and service organizations within the studied organization.

The case organization, here on labeled InduComp, is a large, global industrial organization with operations worldwide. It is organized in divisions according to products and geographical markets, and can therefore be described as a matrix organization. The sub-division, to which this case study is confined, has its headquarters located in Sweden, where it manufactures most of the

technologically advanced equipment that constitutes its product portfolio. The sub-division places third worldwide in terms of turnover in its field of industry. The sub-division consists of two units; ProdUnit, which produces the main products (in the following: ProdUnit products); and SpareUnit, which handles all aftermarket activities. The ProdUnit product has an economic life of around twelve to fifteen years and the prices of the products range between 100 and 1000 KSEK. Importantly, the ProdUnit products consist of a number of individual components which are separately exchangeable; hence, once the products are sold to the external customers, aftermarket services and spare parts are an important source of revenue. The sub-division serves a wide range of markets, where the automotive industry is one of the main customer groups (Internal material¹⁰). Such customers are often involved in the ProdUnit product development, but are also the customers with some of the lowest margins (Controller HQ; Manager Sales Support HQ) due to the large orders they make.

Low maintenance and failure rates of ProdUnit products are of high importance, as stoppages will result in significant losses for the customers due to operational downtime of their businesses. The sub-division considers itself to be a premium manufacturer; *“we are expensive because we are simply the best”* (Manager Sales Support HQ, 2013-01-29). The sub-division conducts all sales, i.e. ProdUnit products and aftermarket, to external customers through geographically dispersed local business units (LBUs), of which there are approximately 50. Therefore, sales to external customers are always performed in two steps: an LBU receives an order from an external customer and subsequently places the same order internally to ProdUnit HQ or SpareUnit HQ. Importantly, each LBU is its own profit center. In the following, the study will focus on SpareUnit HQ and its reverse logistics process.

Service is a key part of the organization’s offer, why SpareUnit’s vision is to provide world class service wherever ProdUnit’s products are installed (Internal Material¹¹). SpareUnit accounts for approximately 20 percent of the turnover of the sub-division, while contributing to approximately 50 percent of the sub-division’s EBIT¹² (Former Managing Director of SpareUnit). The spare parts sold by SpareUnit can be divided into commodity parts and proprietary parts. However, the overall premium prices charged by SpareUnit have led to a weak position in selling commodity parts, as sales are often lost to generic brands (Manager Sales Support HQ). This study will focus on proprietary spare parts, which are parts that often can be refurbished and resold, and are therefore part of the reverse logistics process.

4.1.1 SpareUnit performance measurement

A number of key performance indicators are used to set targets for SpareUnit by higher management, including financial and operational measures. These are cash flow, EBIT, head count, On Time Delivery (OTD), order intake, revenues and stock availability (Manager Sales Support HQ). Nevertheless, EBIT is the most prominent target, and other performance measures are secondary until the EBIT target is fulfilled: *“If we deliver results, but are terrible at everything else – we are forgiven. If the opposite would occur, we would not be forgiven.”* (Manager Sales Support HQ, 2013-01-29).

¹⁰ Internal presentation material received during the pre-study.

¹¹ PowerPoint overview presentation of the sub-division (131 slides)

¹² Earnings Before Interests and Taxes

4.1.2 *Destroying and rebuilding customers' confidence*

During the financial crisis of 2008-2009, sales dropped drastically for the sub-division. As a result, orders to suppliers were reduced or completely halted, resulting in capacity reductions or in some cases even bankruptcy of suppliers. However, shortly after the crisis, demand for spare parts recovered rapidly to exceed the pre-crisis level, resulting in severe difficulties for the remaining suppliers to keep up with the sub-division's orders. As a consequence, SpareUnit could not deliver spare parts according to demand, resulting in a very low OTD rate. The high costs of operational downtime for the customers resulted in a new behavior where customers began acquiring spare parts from unauthorized third-party suppliers (Manager Sales Support HQ). The inability to deliver on time was a significant blow for the sub-division and severely compromised customers' trust in SpareUnit. According to the Manager Sales Support HQ, the customers that started to buy spare parts from unauthorized suppliers are unlikely to ever come back.

These events have led SpareUnit to focus on regaining customer confidence during the past one and a half years (Manager Sales Support HQ). For instance, the top one thousand spare part articles should be available to LBUs within 24 hours and to customers within 48 hours. In order to ensure high availability, a central distribution center (CDC) centrally located in Europe is used. The idea is that *all* spare parts should be stored at the CDC, why no local inventories should be held by the LBUs. While the CDC is geographically separated from SpareUnit HQ, it answers directly to SpareUnit HQ and can be regarded as part of the same organizational unit.

4.2 Reverse logistics: used both for warranty claims and sales of refurbished parts

The reverse logistics loop is used on two main occasions. The first occasion relates to sales of refurbished spare parts, which constitute the major flow of goods within the reverse logistics process (Order & Sales-Support Responsible HQ, person 1). SpareUnit, through the LBUs, offers its external customers to purchase two sorts of spare parts: brand new spare parts for an index price of 100, or refurbished spare parts (in the following referred to as *exchange parts*) for an index price of 60. New and exchange parts have the same warranties, and there is practically no visible difference between them. However, the purchasing of an exchange part is conditioned on the customer returning the replaced (i.e. used or broken) part to the LBU, which in turn sends it on to the CDC, enabling SpareUnit HQ to continuously replenish its inventory of exchange parts. Of approximately 15 000 different spare parts offered at the time of this study, around 200-300 could be bought as exchange parts (Supply Manager, HQ). Altogether, approximately 15-20 percent of SpareUnit's total revenue originates from the sales of exchange parts (Supply Manager, HQ). As far as the Manager Business Development HQ could tell, no competitors to the sub-division have a similar offering.

Secondly, all spare parts replaced under warranty have to be returned to the CDC, using the same procedure as the exchange parts. Such returns are important in order to allow SpareUnit HQ to verify that the warranty claims are legit and to analyze potential quality issues of the concerned part. The reverse logistics flows of exchange parts and warranty claims are illustrated in figure 3.

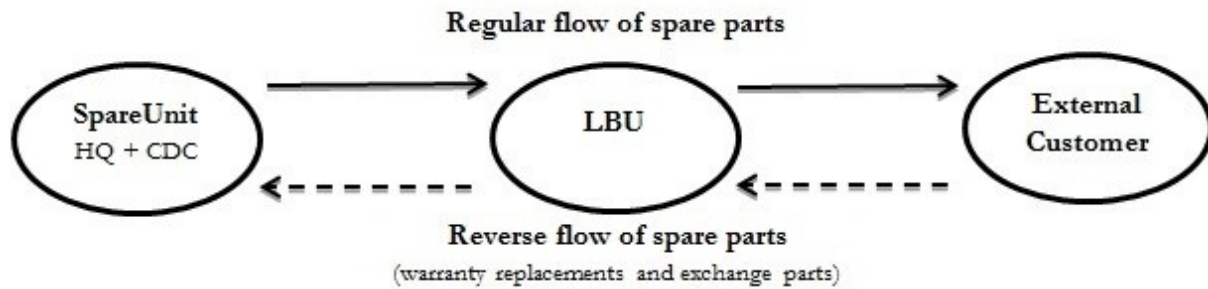


Figure 3: Overview of the flow of goods within SpareUnit

Both processes (i.e. exchange parts and warranties) are reverse logistics flows, and both require the LBUs to perform the entire process – delivering the parts to the customers and returning a used part to the CDC – within 30 days. However, some LBUs handle these processes as one, e.g. the Korean LBU. From the LBUs’ perspective, the main difference between handling exchange parts and warranty parts is that for warranty parts, a specific part must be returned (identified by the part serial number), whereas, for exchange parts, any part with the same article number can be returned (Warranty Manager US; Warranty & Reverse Logistics Manager Germany).

4.2.1 Dissatisfaction at SpareUnit HQ with the operations of the reverse logistics process

The personnel at SpareUnit HQ did not believe that the reverse logistics process was operating in line with expectations. As the Managing Director of SpareUnit HQ said, *“We are not very successful in getting the parts back. Neither with regards to quantities [of parts retrieved] nor within time”* (2013-04-05). The general amount of parts sent back to the CDC was too low, with the effect that the inventory of exchange parts for certain articles became depleted (Former Managing Director of SpareUnit). In order to ensure availability of exchange parts, SpareUnit solved stock-outs by *reclassifying* new parts as exchange parts. Reclassification thereby refers to when the status of a new spare part is changed in the system to an exchange part. This practice results in a direct negative effect on EBIT for SpareUnit HQ amounting to the difference in price between a new part and an exchange part. The yearly monetary loss of this practice was estimated to be in the *“multiple millions [of SEK]”* according to the Manager Sales Support HQ (2013-01-29). The Supply Manager HQ also pointed to the negative financial effect of reclassifications, claiming that reducing the amount of reclassifications would increase SpareUnit HQ’s EBIT by several percentage points. However, the Supply Manager HQ also noted that as the margin was very high nevertheless, *“It [increasing the margins further through reducing the amount of reclassifications] could be considered greedy [...]”* (2013-02-26). Additionally, he claimed that the reclassifications were not something which the LBUs were affected by: *“Today [the LBUs] see that, there are still [exchange parts available] even if they do not return. They have not been given a taste of the problems if they do not return”* (Supply Manager HQ, 2013-02-26). As SpareUnit promises full availability of all articles offered as exchange parts to the customers, regardless of the actual availability, reclassification is necessary when returns of parts from the customers do not suffice to replenish the inventory of exchange parts.

The focus on improving OTD rates and to satisfy the demand for spare parts following the poor performance in the wake of the 2008-2009 financial crisis had resulted in that the reverse logistics process had not been focused on: *“It [reverse logistics] has not been prioritized neither by us nor the LBUs”* (Controller HQ, 2013-02-26). Further, the generally high profitability of SpareUnit was

another reason for the lack of focus upon improving the reverse logistics process (Controller HQ). The lack of attention to the reverse logistics was also highlighted by the Managing Director Division Northern Europe, who acknowledged that the focus throughout SpareUnit had been on resolving the customers' problems rather than improving the return of parts. However, when this study was conducted, the OTD rate had improved and SpareUnit HQ had started to look into other processes to be improved, among them the reverse logistics process.

4.2.2 Perceptions of the motives for the reverse logistics process varied between HQ and the LBUs
SpareUnit HQ personnel generally highlighted that an important reason for retrieving broken parts from customers was to ensure that unauthorized parties could not acquire, repair, and resell SpareUnit parts. This was seen as important both in order to secure market share in the aftermarket for SpareUnit's own products, as well as out of fear that failures caused by improper repairs would be blamed on SpareUnit. Therefore, for certain parts, the most important aspect of the reverse logistics was to get the parts off the market (Managing Director Division Northern Europe). This benefit of the reverse logistics process was only highlighted by two of the LBU representatives, namely the Warranty & Reverse Logistics Manager Germany and the Logistics & Spare Parts Manager France.

Additionally, the exchange offering, which is dependent on the reverse logistics process, allows SpareUnit to make additional money by repairing and reselling the same spare part until it is deemed expired (Systems Operator HQ). Further, the lower value of exchange parts results in an overall lower inventory value, why the cash flow would be improved (Manager Sales Support HQ). Interestingly, one LBU representative (the Technical Support & Help-desk Responsible UK) noted that the reverse logistics process was important as to ensure that SpareUnit HQ otherwise would lose money as one of the main reason for having a well-functioning reverse logistics flow.

The exchange part offering was also viewed as an important alternative for price sensitive customers, allowing SpareUnit to charge a higher price for new parts. This was raised by the Manager Business Development HQ and the Managing Director Division Northern Europe; however, the Logistics & Spare Parts Manager France was the only LBU representative who alluded to this benefit. Finally, through the exchange offering, spare parts that were no longer produced could still be offered (Controller HQ) to customers with older ProdUnit products. This was important due to the extensive life length of the ProdUnit product.

Finally, all persons interviewed highlighted the importance of returning warranty parts in order to improve overall quality and thus reduce the number of faulty parts going out to customers.

4.3 The relationship between LBUs and customers: strong customer-orientation

All responsibilities for external customers are delegated from SpareUnit HQ to the LBUs. A recommended external price is set by SpareUnit HQ; thereafter, the LBUs set the end price by deciding discount levels (Manager Sales Support HQ). Likewise, the LBUs are free to interact in their local market as they see fit.

4.3.1 *Delivering spare parts to the customer: clearly prioritized among all LBUs*

The reverse flow between the customer and the LBU starts with the customer calling their local LBU and ordering a part or claiming a warranty fault. If a warranty case is reported, the personnel at the LBU would check whether the part is under warranty by asking for the part serial number. Additional information asked for is a detailed fault description and run-time hours of the part. If an exchange part order is placed, the LBU would request the invoice number of the spare part that is to be replaced.

When the customer's issue can be clearly identified and isolated to a specific part, a corresponding replacement part is ordered immediately by the LBU. In cases when the issue cannot be isolated to a specific part, a service technician is sent out from the LBU in order to identify which parts need to be replaced. In warranty cases, the fault description and a specification of which part(s) need to be changed are entered into a "part and service report". This information is later inserted into the warranty system at the LBU site, either by the service technician himself, e.g. as practiced by the Turkish LBU, or by an administrator, e.g. as is the case of the German LBU (Responsible for Spare Parts Sales, Turkey; Warranty & Reverse Logistics Manager Germany). The warranty issue is then created, which leads to a warranty order being placed in the enterprise resource planning system. For an exchange part, no fault descriptions are required why a replacement part would be ordered directly by the LBU.

Once the replacement part arrives, the exchange of the broken part is made either through a *service intervention* or a *drop-shipment*. A service intervention means that a service technician visits the customer site with the spare part and exchanges this part. Using drop-shipment, on the other hand, the spare part is sent directly to the customer, and the customer replaces the broken spare part by himself. With drop-shipments, return papers are attached to the package in which the spare part is sent, with the idea that the customer should swap the old part for the new one and return the old part in the same package to the LBU. Drop-shipment is used mainly for spare parts that are easily replaced by the customers, whereas more complex parts are often replaced by service technicians. However, there were local variations between the LBUs with regard to how deliveries of parts were made. For example, the LBU in Korea and the LBU in India chose to perform service interventions in basically all cases (Service Manager Korea; Service Manager India), whereas most of the other LBUs estimated that there was an equal use of drop shipments and service interventions. This process was described by all LBU personnel interviewed and did also correspond to the flow charts in internal documents.

All LBUs highlighted the importance of delivering replacement parts to the customer rapidly. For example, the Warranty Manager US explained that "[large automotive customer] *are losing a hundred thousand dollars each minute* [that production is down]" (2013-03-22). The importance of speedy deliveries was also highlighted by the Managing Director of SpareUnit, adding that the reverse logistics process was an internal matter which should not hinder the delivery to the customer. The Warranty & Reverse Logistics Manager Germany also stressed the importance of a rapid delivery and added that they, in order to fix the customer's problem immediately, often made sure to order several different parts when they were unsure of which part that had broken down in the customer's product.

However, all LBUs pointed out was that it is not always possible to swap the parts at the customer's site as soon as the part can be delivered, as it must be convenient for the customer to have the broken part replaced. This was especially true in cases when exchange parts were ordered before any failures had occurred. For instance, if the customer must halt his production line, it can take a while before the LBUs' technicians are allowed access. For instance, the Warranty Manager US claimed that it had once taken six months for one of their larger customers to allow the US LBU to replace a part. The Exchange Orders & Returns Responsible France raised the same issue, and also noted that it sometimes occurs that deliveries from the CDC to the LBU are late. In some of these cases, the delay can force the LBU to postpone a scheduled service intervention, which can result in significant delays depending on when the customer is willing to halt his production next time.

4.3.2 Local adaptations: inventories and repairs on LBUs' sites

Some of the LBUs interviewed had established local inventories, e.g. US, Germany, India, China, Brazil, Japan, Turkey and Korea¹³. This allowed the LBUs to deliver the parts to the customers immediately, and also resulted in that warranty claims could be registered in the system after having collected the faulty part. The Service Manager Korea explained that the Korean LBU sometimes even disassembled ProdUnit products when no spare parts were available in their local inventory, to ensure rapid deliveries to their customers. However, the Manager Spare Parts & Logistics Japan explained that building up a local inventory of exchange parts caused problems for his LBU, due to the requirement of returning a broken part for every ordered exchange part. However, as many of the competitors to SpareUnit had their production facilities in Japan and could thus maintain delivery times of a few hours, the Japanese LBU could not afford to wait for parts sent out from the CDC in Europe. Additionally, the Manager Spare Parts & Logistics Japan explained that this was a way of ensuring that stock unavailability at the CDC would not affect them in critical situations.

However, such local inventories were not promoted by the personnel at SpareUnit HQ, as such practices would result in that fewer parts would be stocked at the CDC – resulting in lower availability for the LBUs without local inventories (Manager Sales Support HQ).

Some LBUs (e.g. Brazil, Korea) had their own repair center (Warranty Manager Brazil; Service Manager Korea); although the personnel at SpareUnit HQ were not fully aware of exactly which LBUs have repair centers. Such repair centers were neither officially supported nor discouraged by SpareUnit HQ. The Warranty Manager Brazil explained that they used the repair center as a way to reduce lead time, which allowed them to better face their competition.

4.3.3 Getting the broken parts back from the customer: deprioritized due to lack of resources

After delivering the parts to customers, the broken parts must to be retrieved from the customer. If the part was delivered using drop-shipment, the customer is supposed to return the faulty part himself. The freight charges are paid by SpareUnit, why the customer does not have to bear any

¹³ Warranty Manager, sub-divisional LBU United States, 2013-03-22; Warranty & Reverse Logistics Manager, sub-divisional LBU Germany, 2013-03-20; Service Manager, sub-divisional LBU India, 2013-03-28; Service Manager, sub-divisional LBU China, 2013-03-20; Warranty Manager, sub-divisional LBU Brazil, 2013-04-02; Manager Spare parts & Logistics, sub-divisional LBU Japan, 2013-04-18; Responsible for spare parts sales, sub-divisional LBU Turkey, 2013-04-18

costs (Manager Sales Support HQ). If a service intervention is performed, the service technician usually collects the broken part when returning from the customer site. All LBU personnel agreed that it was easier to retrieve the faulty parts back when using service intervention as opposed to drop-shipments. However, it was explained that heavier parts might not be easily retrieved by the service technician, why such parts often were left behind and required the customer to send back the part to the LBU.

When the customers were responsible for returning the faulty parts, they were given a specified number of days in which to return the part. The time frame given to the customers varied significantly between the LBUs, from three days, as in the case of China, to fourteen days, as for US (Service Manager China; Warranty Manager US). This information was specified in the contract (exchange parts) and in the warranty form (warranty parts), both of which also specified the LBUs' contractual rights to invoice the customers if the parts were not returned in time. The Manager Spare Parts & Logistics Japan explained that after 30 days had gone since the customer had received a spare part from the LBU without having returned the old part, the Japanese LBU would threaten to invoice the customer. When asked whether this threat was also executed, the Manager Spare Parts & Logistics Japan replied "*No, no, no*" (2013-04-18), referring to the importance of maintaining a good relationship with the customer. The Turkish LBU, on the other hand, did not perceive a problem with invoicing their customers, and explained that they clearly communicated the consequences of failing to return parts (Responsible for Spare Parts Turkey).

According to the Service Manager China, the Chinese LBU had since the beginning of 2013 started to always send out a service technicians to bring back the broken parts if the customer did not return it himself. The Indian LBU called their customer when the customers did not return the parts in time, and a freight forwarder was arranged to collect the part at customer site (Service Manager India). In Germany, a reminder would be sent out within five to ten days after the two week return time frame given to return had passed (Warranty & Reverse Logistics Manager, Germany). If the part was not returned after this reminder, an invoice would be sent out. However, the Warranty & Reverse Logistics Manager Germany stressed that not all customers were invoiced, as the project managers for certain customer accounts were unwilling to invoice their customers as not to risk the relationship.

At the LBU in France, the customer would be sent reminders and be called weekly by the internal customer responsible if not returning the parts in time, explained the Exchange Orders & Returns Responsible France. However, the customer would not be invoiced by the French LBU, as their experience was that customers did not pay such invoices, even though invoices were specified in the contracts. Instead, the French LBU kept an informal record of customers past return performances, and classified customers either as "good" or "bad". The "bad" customers were not allowed to order exchange parts until they returned the old part first.

During the interview with the US LBU, the importance of not nagging at the customers for returning parts in fear of losing future orders was referred to several times. The Supervisor of Customer Service Planning & Purchasing US expressed that "*We are in the service business. Our bottom line focus is to take care of our customers*" (2013-03-22) and the Warranty Manager US added that "*we have to be careful for how we treat our customers, so we don't force them to go to any of our competitors*"

(2013-03-22), why the US LBU was reluctant to invoice their customer for delayed returns. If the customer did not return the part within the fourteen days, the personnel at the LBU in US would call the customer. If this did not work, a management decision was normally taken that the LBU would not invoice the customer. Additionally, the Warranty Manager US noted that in past instances when invoices had been sent, they often went into dispute; hence he saw no point in invoicing them.

At the LBU in UK, Service Manager UK explained how he “chased” the customer in order to get the broken part back through repeated calls asking for the missing part. When communicating to the customers that they needed to return the faulty parts, the Technical Support & Help-desk Responsible UK exemplified his approach as: *“Well, Sweden require the faulty parts back to them, so could you please return the faulty part back to us so we can send it back to Sweden?”* (2013-03-19). The Service Manager UK said that they threatened to invoice some customers, which had the effect of improved returns. The LBU in UK also went through with invoicing the customers if they could not provide a proper explanation for the delayed returns of exchange parts (Service Manager UK); although not for warranty parts (Technical Support & Help-desk Responsible UK).

In order to increase the focus on the reverse logistics process, the Service Manager UK stated a need for additional employees as the resources were not enough. He added that *“it does take a huge amount of our resources to effectively do it [chasing broken parts], that is why we effectively don’t do it”* (2013-03-22). Also the Manager Spare Parts & Logistics Japan, the Warranty Manager US and the Warranty & Reverse Logistics Manager Germany highlighted a lack of resources for fully complying with the requirements from SpareUnit HQ. In particular, the Warranty Manager US said that, being under-staffed, their focus had been on getting parts out to the customer in order to minimize losses incurred by the customers due to production downtime, why it was very difficult for the LBU in US to get all broken parts back within 30 days.

The personnel at SpareUnit HQ, however, believed that the LBUs could be tougher towards the customers and also better at informing the customer of the need for returning the parts. The Supply Manager HQ claimed that *“they [the LBUs] are not seeing the gain in this [returning broken parts], they are only seeing this as money for us [SpareUnit HQ]. And they think that we make enough money already so it is no hurry in their view”* (2013-02-26). He believed that the personnel at the LBUs would increase their efforts regarding the reverse logistics process if SpareUnit HQ would stop reclassifying parts to compensate for the poor return flow of parts, and thus letting the inventory of exchange parts to run out.

The Service Manager UK, the Warranty Manager France, the Exchange Orders & Returns Responsible France as well as the personnel from SpareUnit HQ highlighted that it was more difficult to retrieve parts from the larger customers (e.g. automotive companies). The Service Manager UK and the Warranty Manager US both pointed to the complicated infrastructure of those larger customers as the reason for this, as it made it difficult for the personnel at the LBUs to know which person at the customer’s site to approach when demanding the parts back. Contrary to the other LBUs, the Responsible for Spare Parts Sales Turkey experienced that the larger customers had better routines, why she felt it was easier to retrieve parts from such customers.

Once retrieved, the LBUs could consolidate return shipments of used parts. Shipments were sent from LBU sites with intervals from every day to once every month. For example, one of the largest LBUs, Germany, sent shipments every day or every second day as the shipments otherwise got so large, making it more difficult for the CDC to handle the returns (Warranty & Reverse Logistics Manager Germany). On the other hand, the Brazilian LBU, being one of the smaller LBUs, sent back parts once a month (Warranty Manager Brazil). The reason for the LBUs not returning parts more frequently was to minimize the return costs as well as to minimize administration time (Warranty Manager Brazil; Manager Spare Parts & Logistics Japan; Technical Support & Help-Desk Responsible UK).

4.3.4 Multiple systems were complemented with excel sheets for handling the reverse logistics process

An issue raised by the LBU personnel was the amount of data required for the different data systems relating to the reverse logistics process. For example, the Warranty Manager US did not believe the data gathered was necessary in all cases, stating that:

“We need to gather data to try to figure out what is going wrong with these things and to get as many cores [broken parts] back as possible for the R&D team [...] it is very important for us to get these things back as soon as possible, with as much data as possible. I am not complaining about that kind of stuff, but just the routine gathering of data for parts that just normally get thrown out when they get back to [CDC] anyway, I think is NOT right” [emphasis added] (2013-03-22).

He referred to the fact that the data systems required equal amounts of data regardless of what part the issue concerned. This meant that simpler parts, that were normally scrapped upon arrival to the CDC, required the same information as larger, complex parts.

The Warranty & Reverse Logistics Manager in Germany, on the other hand, voiced concerns regarding the amount of data systems in place, and the lack of integration of the systems: *“We have now this warranty tool where we have to update manually everything, then we have this reverse logistics tool where we have to update everything, and we have our own SAP-tool here on site where we have to update everything, so there are three tools not working together – they are working parallel”* (Warranty & Reverse Logistics Manager in Germany, 2013-03-13). He added that if the systems would continue as they were, then the LBU in Germany would require more personnel in order to handle the reverse logistics process properly.

Additionally, as the systems could not precisely track where various parts were (e.g. still at the customer’s site, or received at the LBU), several LBUs¹⁴ (France, Germany, Brazil, Japan, UK) had complement the systems with local excel sheets for keeping track of the reverse logistics orders.

4.3.5 Local hindrance with the reverse logistics flow

The reverse logistics process at some LBUs was affected by local customs regulations. These LBUs, approximately ten in total, had special agreements with SpareUnit HQ due to being unable

¹⁴ Warranty Manager, sub-divisional LBU France, 2013-04-05; Warranty & Reverse Logistics Manager, sub-divisional LBU Germany, 2013-03-13; Warranty Manager, sub-divisional LBU Brazil, 2013-04-02; Service Manager, sub-divisional LBU United Kingdom, 2013-03-22; Manager Spare Parts & Logistics, sub-divisional LBU Japan, 2013-04-18

to return parts in time, or at all (Global Technological Support Manager HQ). For example, the Service Manager India explained that the Indian LBU had, since day one, been unable to return exchange parts due to Indian customs legislation; however, warranty parts could still be returned. Therefore, the Indian LBU was no longer allowed to purchase exchange parts from SpareUnit HQ. The Service Manager India claimed that the inability to offer exchange parts to their customers affected the LBU's competitive situation. By only being able to offer more expensive, new parts, the Service Manager India feared that the customers instead would turn to competing manufacturers next time they would buy new, entire products.

Customs legislations were also a problem for the Brazilian LBU. According to the Warranty Manager Brazil, parts could remain in customs for up to 40 days. This in turn, similar to India, affected the LBU's competitive situation. Due to this situation, the Brazilian LBU avoided selling exchange parts that they could not repair locally.

4.4 The reverse flow between LBUs and HQ: strict invoicing for non-returns

4.4.1 Time frame for LBUs to return parts to CDC: generally perceived as too short among LBUs

The time frame for returning parts for most LBUs is 30 days; however, some LBUs have an extended time frame. The return time starts counting when the part is shipped from the CDC to the LBU, and stops when the replaced part is shipped back to the CDC (Order & Sales-Support Responsible HQ, person 1). However, the last evaluation of the reverse logistics process indicated that the process on average takes more than 30 days (Internal Material¹⁵). Thus, the current process does not operate as quickly as intended. Furthermore, according to the internal material¹⁶, the process suffers from a high ratio of *not at all* returned parts.

Most LBUs were unhappy with the 30 days' time limit. For example, the Warranty Manager US stated that it is rare that the LBU in US manage to get the spare parts back to *their* site within 30 days. The Service Manager China noted that the LBU in China had difficulties to conform to the 30 days when delivering parts to, and collecting parts from, customers located in remote parts of China, as the transportations within the country alone could take five to six days. The Service Manager India pointed to the time that warranty parts would remain in customs as an impediment to conforming to the 30 days. Instead, the process in total currently takes 45 days for the Indian LBU.

As mentioned above, the customers sometimes postponed the access for the LBUs' technicians several times, as to not disturb their own production. This also resulted in difficulties of conforming to the 30 days return time, and was another reason why the 30 days were perceived as insufficient.

However, the Managing Director of SpareUnit believed that the time limit was reasonable, especially when considering that deliveries from CDC to customers had a delivery target of 48 hours worldwide. Also the Manager Sales Support HQ believed the time limit should be reasonable, especially as the LBUs had the possibility to request for a prolonged return time in

¹⁵ PowerPoint presentation explaining reverse logistics process (9 slides)

¹⁶ PowerPoint presentation explaining reverse logistics process (9 slides)

the systems: *“if you [LBUs] need more time, you will get it”* (2013-01-29). However, asking for a prolonged return time could only be done once; if the return was further delayed, the option was no longer available and the LBUs would be required to contact SpareUnit HQ and discuss the matter with them. The Logistics & Spare Parts Manager France, however, wanted to be able to extend the return time more than once using the simple way in the systems, as the customers sometimes postponed the service interventions. The Manager Business Development HQ was somewhat more understanding, as he believed the 30 days limit could be very short for LBUs with a relatively small flow of exchange parts as the shipping costs then would be large.

4.4.2 The process at HQ level: strong focus on delivering parts to LBUs why the return flow has suffered

Once warranty returns are received at the CDC, they are either approved directly or sent to a test center for approval. For approved warranty cases, the LBUs are compensated for their work performed (e.g. service technicians visiting the customer site and replacing the faulty part). The amount of compensation is pre-determined regardless of the work performed by the LBU. Thus, the LBUs have a specific monetary incentive to return the warranty parts vis-à-vis exchange parts (Order & Sales-Support Responsible HQ, person 2).

For the Order and Sales-Support department, the reverse logistics process is only one of several responsibilities. As handling orders out to customers is considered a priority, the reverse logistics had been deprioritized at the Order and Sales-Support department. This had resulted in a significant backlog of still open reverse logistics orders waiting to be dealt with (Order & Sales-Support Responsible HQ, person 2). Both Order & Sales-Support Responsible (person 1 and 2) believed that the personnel resources at the Order and Sales-Support department were not enough to sufficiently deal with the reverse logistics process, as they could barely keep up with new incoming issues, let alone the backlog of non-returned parts.

4.4.3 Invoices from HQ to LBUs for non-returned parts: tougher invoicing approach since 2013

SpareUnit HQ has established an invoicing system whereby the LBUs are invoiced if they fail to return the parts within the time limit of 30 days. However, this had not been implemented consistently in the past; invoicing was used sporadically as a targeted effort when SpareUnit HQ perceived that a certain LBU had been particularly poor at returning parts (Manager Sales Support HQ). These efforts did, however, have a significant effect on the return rates. For example, the Manager Sales Support HQ claimed that the LBU in China had never returned a single spare part until the Order and Sales-Support department started threatening with sending invoices. Thereafter, the return rates of the Chinese LBU increased significantly.

Additionally, past invoicing of LBUs differed with regards to which Order and Sales-support person was responsible for the specific LBU; thus, it was this person's discretion to determine how (and when) to invoice the LBUs (Systems Operator HQ). In addition, e-mail exchanges would normally precede any invoices, giving the LBUs an additional chance to return the late parts. However, from the beginning of 2013, the situation has changed. Following a management decision at SpareUnit HQ, the Order and Sales-support team are supposed to invoice all LBUs immediately after the 30 days have lapsed, without any need of notifying the LBUs beforehand. Thereby, the invoicing has become significantly more stringent. The Managing Director of SpareUnit argued that this step was necessary, as the previous process, with extensive

communication before invoices were issued, was too time-consuming. In addition, referring to the stringent invoicing, he stated that *“Money is a good management control measure, and that’s the way it is”* (Managing Director of SpareUnit, 2013-04-05).

By invoicing stringently as soon as the 30 days return time had passed, the aim of the new process was to change the behavior of the LBUs.

“Now when we have got this new [warranty] tool and they [the LBUs] have received so many e-mails and got so much information [regarding the changes in invoicing], then we have to stick to that, to really show that we will invoice them if they do not return it [the broken parts] [...] Then we believe the customers [LBUs] will change their behavior. If they receive invoices, because with invoices, then the customers will understand...” (Order & Sales-Support HQ Responsible person 2, 2013-04-05).

Both Order & Sales-Support Responsible HQ person 1 and person 2 believed that the LBUs had improved since the introduction of the more stringent invoicing, however, only a few months had passed since the adoption of the stringent invoicing.

Interestingly, both the Warranty & Reverse Logistics Manager Germany and the Service Manager UK believed that a more stringent invoicing system would help them. The Service Manager UK believed that invoicing would give the reverse logistics a financial effect for the LBUs and thus, it would receive a higher priority among his assignments. The Service Manager UK further believed that it was difficult for the LBUs to take responsibility for the process as *“We don’t see the bigger picture, we don’t see that it [the broken spare parts] needs to be sent back quicker. So, [SpareUnit HQ] has not been able to communicate that they need it quicker”* (2013-03-22). He added that the former lack of invoicing from SpareUnit had led to a slack attitude at the LBUs. Adding to this, the Exchange Orders & Returns Responsible France believed that the previous invoicing had been irregular and confusing. For instance, the French LBU had received some invoices for only slightly overdue exchange parts during 2012 – whereas other, significantly more overdue parts had not been invoiced.

However, the lack of a dialogue before invoices were issued was pointed out as a turn for the worse by the Warranty Manager France and the Exchange Orders & Returns responsible France. Both of them believed that it was important with at least a notification from SpareUnit HQ before an invoice was sent to the LBU. The Manager Sales Support HQ acknowledged that the relation between SpareUnit HQ and the LBUs could be affected by the stringent invoicing, as the LBUs might feel that SpareUnit HQ did not consider the local issues which the LBUs are facing. Additionally, he believed that invoicing might not resolve the underlying issue of non-returned parts. However, he still believed that the LBUs could get better at getting more parts back from the customer without deteriorating this relationship. He added that an effect of increased invoicing would be that some profit would be moved from the LBUs to SpareUnit HQ, as the LBUs likely would take some costs for non-return returned parts themselves.

What soon became apparent during the interview with the representatives from the LBU in US was that they were very upset over the more stringent application of invoicing. For example, the Warranty Manager US had an intimidating tone when talking to the researchers and did not discern between the researchers and SpareUnit HQ. Additionally, the Warranty Manager US and

the Supervisor of Customer Service Planning & Purchasing US constantly referred to the LBU in US as doing a very good job with regards to reverse logistics, e.g. *"We are probably one of the better LBUs to deal with, with regards to reverse logistics"* (Supervisor of Customer Service Planning & Purchasing US, 2013-03-22). The Warranty Manager US perceived the implementation of the stringent invoicing as a one-sided agenda from SpareUnit HQ's side, i.e. by pushing the LBUs to improve while not being able to handle the current flow of parts. He claimed that the US LBU had returned parts to the CDC some time ago which had not yet been processed, and questioned why they would get invoiced after 30 days when SpareUnit HQ was not fulfilling their part: *"They [SpareUnit HQ] are not processing it, yet they are going to invoice us after 30 days. I want to know, where is the trust and fairness in that type of situation?"* (2013-03-22). The Supervisor of Customer Service Planning & Purchasing US also commented on the impact that the newly implemented invoicing had on the relationship with SpareUnit HQ: *"it is not as team-focused, or as 'One InduComp'-focused as it was in the past."* (2013-03-22). The financial effects of the new stringent invoicing were still being evaluated by the US LBU; however, the Warranty Manager US was sure that his superiors were going to notice this due to its impact on the US LBU's profit and loss statement: *"People notice when it is a million dollars a year."* (2013-03-22). Additionally, the Warranty Manager US believed that the LBU was not gaining anything from the reverse logistics process, stating that *"We are not gaining anything by doing any of this, except trying to keep from paying with money for something that we shouldn't have to pay for to begin with"* (2013-03-22).

Instead, the Warranty Manager US and the Supervisor of Customer Service Planning & Purchasing US believed that all LBUs should meet with the aim of reaching consensus on how to develop the reverse logistics so it *"maybe makes a little more sense"* (Supervisor of Customer Service Planning & Purchasing US, 2013-03-22). The Warranty Manager US claimed that when the LBUs were informed about the more stringent application of invoicing, the LBUs were given some time to raise their concerns about this process. However, his LBU was also told that SpareUnit HQ had basically already made up their mind. The Managing Director of SpareUnit, on the other hand, believed that the LBUs have had a say in the discussions; not all LBUs, but at least the large ones (of which the US LBU is one, according to the Internal Material¹⁷), as he believed it was important to have the largest LBUs on board when performing changes.

The Warranty Manager US, similar to the Exchange Orders & Returns Responsible France, claimed that if they receive an invoice from SpareUnit, due to a delayed return of a part, they would *not* return that part to CDC and instead either use the broken part in the future when a similar order is placed, or they would scrap it. Thus, the Warranty Manager US believed that *"At that point we own it, there is no point in sending it back and getting involved in this spinning-the-wheel-to-run-our-process if we already have purchased the part. Therefore, you guys [referring to SpareUnit HQ] won't get the data you're looking for, we end up paying for the part and no one is happy"* (2013-03-22).

4.4.4 Adaption to special circumstances: extension of return period possible but no credit notes

With the newly implemented rule, no invoiced material (i.e. broken parts which were not returned in time) would be credited regardless of whether it is an exchange or a warranty part (Order & Sales-Support Responsible HQ, person 1). This was more stringent than the previous

¹⁷ Excel sheet of all LBUs and their total number of warranty issues and number of warranty issues not returned on time

rule for delayed returns where credits often were given. A possibility for the LBUs, in order to avoid getting invoiced, was to fill in an application for extending the return period. If such a request was not made and the part was returned too late, the Order and Sales-Support team would ask whether the LBU wanted the part returned or if SpareUnit HQ could keep it. Either way, the LBU would not get credited (Order & Sales-Support Responsible HQ, person 2). According to the Manager Sales Support HQ, extending the return period was fairly straightforward through a system application, which the Order and Sales-Support department approved if it was deemed reasonable. The extension of the return period was originally only used as an exception, however, as the Manager Sales Support HQ expressed it, "[...] *as with all exceptions in this world, it turned out to be a rule*" (2013-01-29). He added that there was a tendency that the extension option was becoming misused by the LBUs.

However, the Warranty Manager US was upset about the new approach, with tougher invoicing and no possibility for credits, which he believed was more hard-lined and less team-focused than before. Also the Exchange Orders & Returns Responsible France believed that the situation had changed for the worse. In France, the summer holidays impacted on the possibility to return parts; the LBU in France was basically closed during August every year and the customers themselves were understaffed, due to summer vacations, which made it difficult for the LBU to retrieve parts from the customers. However, this was not considered by SpareUnit HQ, and the French LBU received a large amount of invoices for parts that they eventually could return, but would not be credited for.

The Warranty Manager US also believed that the situation had changed with regards to the extension of the return period as *"Where we used to be able to pick up the phone and call someone, now it's going to be a 30-day you're-getting-invoiced-thing. There is no one to talk to about it"* (2013-03-22). However, the Manager Sales Support HQ highlighted that the option to extend the return period remained as before.

4.5 Evaluation of reverse logistics: lack of evaluations at HQ and LBUs

4.5.1 Evaluation of reverse logistics at HQ: lack of targets within SpareUnit HQ and towards LBUs

When interviewing personnel at SpareUnit HQ, it soon became clear that barely any targets were set on the reverse logistics process for the managers. The Managing Director Division Northern Europe said that he had not set any targets on reverse logistics for his subordinate, the Managing Director Sub-division Sweden. The Managing Director of SpareUnit, in turn, did not have any targets on reverse logistics set on him by the Managing Director Sub-division Sweden. However, the Managing Director of SpareUnit still believed that there existed a focus and pressure for improvement with regards to the reverse logistics process, as it was put upon the divisional agenda. Financial targets were set on all levels, as well as targets on responsibility, which was indirectly affected by the reverse logistics process (Managing Director of SpareUnit). The Managing Director of SpareUnit did not have any direct financial rewards tied to such target achievement; however, his salary development was affected by target achievement. The targets against which the Managing Director of Robotics Service was evaluated were the same as those he set on his direct subordinates, why no formal measures were set on the reverse logistics for his direct subordinates. However, he believed the subordinates should have such measures, although

he believed that it was up to the manager in between himself and the employees to set such targets.

The Manager Sales Support HQ, a direct subordinate to the Managing Director of SpareUnit, thus had no targets on the reverse logistics process set on himself. In turn, he did not set any such targets on his subordinates or on the LBUs. No evaluations were made on how much of the parts that the LBUs were returning either, according to the Manager Sales Support HQ. His subordinates (Order & Sales-Support Responsible person 1 and 2), in turn, were unsure of what the Manager Sales Support HQ were measuring their performance on; although they believed they were measured on the amount of orders closed in the different systems.

The Global Technological Support Manager HQ was also interested in the reverse logistics process and its performance, although mainly relating to the warranty parts. For instance, he was evaluated on the time of the overall warranty process, of which reverse logistics is one part. Thus, he was not directly measured on the reverse logistics process either. He in turn set identical targets on his subordinates. However, with regards to target achievement, he believed there were no carrots for fulfilling the goals either for the LBUs or for the back-end personnel, why he believed some incentive was needed. For himself, the Global Technological Support Manager HQ believed that there was no carrot either, although there were *“people with large whips. That is enough for making me run fast”* (2013-04-18).

4.5.2 Evaluation of reverse logistics at LBUs: mostly informal targets rewarded non-financially

The Service Manager UK was mainly evaluated on financial figures (e.g. EBIT, order intake) as well as OTD rates, whereas the reverse logistics process did not play part in the performance evaluation. If the invoicing from SpareUnit HQ would be more enforced, he believed that the reverse logistics would be given a higher priority from his side, due to its impact on EBIT. However, his subordinate, the Technical Support & Help-desk Responsible UK, explained that he was evaluated on his interaction with the customer and the resolution of warranty cases. This evaluation was made informally with non-financial rewards such as verbal recognition. The situations for the Service Manager Korea and the Warranty & Reverse Logistics Manager Germany were fairly similar, as both believed their superiors were not concerned with the reverse logistics process unless any invoices arrived. For example, when asked who was evaluating him, the Warranty & Reverse Logistics Manager Germany answered *“Nobody. Like I told you, this [the reverse logistics process] was not a high value work. Senior management is still not getting directly interested in this. They will, however, show up when we get the invoices. But when we don’t get the invoices, everything is fine”* (2013-03-20). Neither one of these two had any targets set by their superiors on the reverse logistics process. However, the Warranty & Reverse Logistics Manager Germany claimed that the reverse logistics group in Germany had set a target on open returns themselves. Target achievement was, however, neither recognized nor rewarded. For the Warranty Manager Korea, the focus was on delivering to customer site. In Brazil, the focus was on getting the parts out to the customer why the Warranty Manager Brazil was followed up on customer delivery, rather than customer returns.

The Service Manager India, on the other hand, had a target of zero invoices. Target achievement was not rewarded in any way; however, the Service Manager India stated, in a joyful manner, that *“If I get an invoice, and the invoice cannot be reversed or cancelled in the system, then my boss will slap me”* (2013-

03-28). Also the Warranty Manager France had a target of zero invoices. Target achievement was not rewarded; however, for if an invoice would arrive, the Warranty Manager France would be criticized. A similar situation was prevalent for the Exchange Orders & Returns Responsible France and her superior, the Logistics & Spare Parts Manager France. The Responsible for spare parts sales Turkey also had a target of zero invoices, as well as a target of zero customer complaints. Out of these, the latter was more important, as *“the customer comes first, of course”* (2013-04-18). Targets achievement was rewarded non-financially through verbal appraisals. In China, on the other hand, evaluations were more thorough as the Service Manager China was evaluated by his managers on KPIs of the amount of warranty cases handled, how many parts were sent out to customers and how long time it took to return the part to CDC. This evaluation was performed monthly and rewarded non-financially through verbal recognition. However, the Service Manager China highlighted that he *“don’t do this for the reward”* (2013-03-20). The targets were not so easily reached as it was important not to push the customer.

At the LBU in US, employees’ performance with regards to the reverse logistics process was followed up during regular management status reviews, according to the Supervisor of Customer Service Planning & Purchasing. However, no rewards were mentioned during the interview.

4.6 Moving from empirics to analysis: stringent invoicing applied to increase return flow

In this section, we aim to sum up the main findings before continuing to the analysis. As identified earlier, the personnel at SpareUnit HQ were not satisfied with how the reverse logistics process operated, neither for returning exchange parts nor warranty parts. This resulted in the depletion of the inventory of exchange parts and the risk that proper fault analyses could not be conducted. The main struggle for SpareUnit was to get the parts back from the customers. As it was SpareUnit HQ who was driving the process of improving the performance of the reverse logistics process, the question can be rephrased to how the intra-organizational characteristics can affect *SpareUnit HQ management’s* ability to influence the external customers’ behavior.

Except for the 30 days’ time limit for returning parts, SpareUnit HQ did not perform any evaluations of the reverse logistics process on either the LBUs or SpareUnit HQ personnel. At some LBUs, the employees involved with the reverse logistics process were evaluated; however, this was rare and only tied to non-financial incentives. Throughout the interviews it became clear that there was no clear common perception, between LBUs and SpareUnit HQ, regarding the benefits of the process. Prior to 2013, invoices were sent sporadically by SpareUnit HQ as an effort to get more parts back when inventory levels were diminishing. In the beginning of 2013, however, a more stringent application of the invoicing procedure was implemented, with the aim to improve the returns of faulty parts. Thereby, the LBUs would receive invoices for *all* parts which were not returned within 30 days. The newly implemented stringent invoicing was, on an overall level, not appreciated by the LBU representatives who felt squeezed due to often being unable to pass on such invoices to the customers.

5. Analysis: Framing SpareUnit according to intra-organizational characteristics

In the following, the analysis of the empirical data is found in three main sections. The underlying question of this thesis is how intra-organizational characteristics can affect management's ability to influence external customer behavior, which is operationalized through the tensions of Busco et al (2008) while explicitly tying the vertical versus lateral relation to Cäker's (2007) discussion on vertical versus lateral accountabilities. The analysis, building on the application of the conceptual framework through which SpareUnit is classified into intra-organizational characteristics, is separated into three parts. In the first section, convergence versus differentiation of practices are discussed, examining to what extent the LBUs were allowed to – and did – differentiate how they interacted in their local markets, including the handling of the reverse logistics process. Our conclusion from this section is that the LBUs were given substantial autonomy in how they interacted with customers in their local markets. However, the reverse logistics time frame was largely standardized and did not account for local circumstances to any significant degree. The time frame was thereby perceived as inflexible, and many LBUs initiated local solutions in an attempt to deal with the situation, while not detracting from servicing customers.

In the next section, vertical versus lateral accountabilities are discussed, reflecting how the substantial autonomy for interacting in the local markets – in conjunction with a previously strong emphasis on customer focus by SpareUnit HQ – resulted in the LBUs being mostly accountable to customers rather than for them towards SpareUnit HQ. This was expressed in that the LBUs' primary focus was to satisfy their customers, rather than ensuring that the reverse logistics process was operating per SpareUnit HQ's expectations. Third, centralization versus decentralization of decision-making is discussed, showing how SpareUnit HQ used its formal hierarchical power to decide the path for improving the reverse logistics process. A conclusion from this section is that SpareUnit HQ, through their centralized decision to implement a more stringent invoicing system, has delegated the management of the tension between accountabilities to and accountabilities for customers to the LBUs. However, the invoicing has provided a condition under which the LBUs need to manage the tension, why we suggest that it can be described as a conditional management of the tension.

5.1 Convergence versus differentiation of practices: LBUs respond to standardized requirements, but are autonomous in customer interactions

5.1.1 Standardization of systems and the reverse logistics process with some differentiation

Convergence of practices (Busco et al, 2008) was to some degree prevalent within SpareUnit, and was mainly related to the systems used and the process flow between the LBUs and the CDC. Similar to the case of Nestlé Waters, where convergence of practices was observed for the international brands (Busco et al, 2008), SpareUnit had standardized the global process of reverse logistics. In addition to the standardized systems, the time frame which the LBUs had to conform to for the reverse logistics process was generally standardized (to 30 days) by SpareUnit HQ.

The standardization can be regarded as a necessity, as the large volume of transactions required systematization across the LBUs if SpareUnit HQ was to be able to process warranty issues and exchange orders efficiently. The 30 day return period was considered sufficient by SpareUnit HQ

for the LBUs to perform their part of the reverse logistics process, why SpareUnit HQ was reluctant to deviate from the standard unless it was clear that the LBUs could not conform to the time limit (e.g. due to customs regulations). Thus, the standardized system allowed for central coordination in order for SpareUnit HQ to ascertain timely fault analyses and maintain stock availability. The need for central coordination resembles the logic for implementing a standardized performance measurement system for the international brands in the case of Nestle Waters, where standardization enabled central strategy setting (Busco et al, 2008).

Many LBUs were unhappy with the time frame, especially those located far away from the CDC (e.g. China, India, Japan and USA). In addition, customs regulations and large geographical distances within countries made the 30 day time frame more difficult for certain LBUs (e.g. Brazil, China, India). As a way to allow for some differentiation, in case needed, the LBUs were given the possibility to request prolonged return time. However, the reverse logistics systems only allowed the LBUs to make such requests once – if the return period needed to be extended another time, the LBUs had to contact SpareUnit HQ personally and explain the situation. A few LBUs had special agreements with SpareUnit HQ, due to local customs rules preventing them from complying with the requirements of the reverse logistics process. The LBU in India, for example, was not allowed to purchase exchange parts due to being unable to return such parts.

The conditions of returning parts to the CDC can be described as *tailored standardization* (Dooms & van Oijen, 2008). This implies that the 30 days were largely standardized across the LBUs, but with some variations to account for LBU-specific circumstances. However, the tailored agreements were used in cases where severe restrictions hampered the LBUs' possibilities to send parts out of the country, and did not serve to account for e.g. local business practices. Thus, the logic that local differences should be accounted for did not appear to have been thoroughly implemented for the reverse logistics process. The possibility of requesting a prolonged return time can be considered one way in which SpareUnit HQ acknowledged the heterogeneity of the LBUs' environments and corresponding ability to adhere to the return time. However, this option was open to all LBUs and was easy to use, why it had been put into regular practice by some LBUs, according to the Manager Sales Support. Thereby, the option to prolong was not only used in cases when the original time frame was too tight, and thus it did not serve as a way of differentiating between local demands faced by the various LBUs.

5.1.2 LBUs largely autonomous in their local interactions

By not setting any guidelines for the LBUs' interactions with customers, SpareUnit HQ has allowed for significant *differentiation of practices* (Busco et al, 2008) among the LBUs in how they interact with customers on their local markets. This is similar to the case of Nestle Waters (Busco et al, 2008) where the local brands remained autonomous in their respective markets by not including them in the standardized performance measurement system. Thereby, the needs of the local markets were accommodated.

For instance, the LBUs could, in conjunction with the customer, choose which delivery method to use – service interventions or drop shipments. This led to significant differences between the LBUs in how deliveries were made, with some LBUs choosing to always perform service interventions whereas others had a more even distribution between the two delivery methods. The administrative processes related to the reverse logistics process also varied between the

LBUs, for example with regards to whether the service reports were filled-out by an administrator or a service technician. Further, the time frames given to customers for returning parts were decided by each LBU, where some LBUs required parts to be returned within five days, whereas others gave their customers two weeks. The methods used for retrieving parts also varied between the LBUs; from sending out service technicians to bring parts back, to simply calling the customers repeatedly. In addition, the frequency of return shipments to CDC varied between the LBUs, and was mainly related to the volume of warranty claims and exchange part sales of the specific LBU, where the larger LBUs tended to return parts more frequently.

By not intervening in the local conducts of the LBUs, it appears as if SpareUnit HQ has attempted to account for local differences among the various LBUs. This is in line with several researchers' arguments (e.g. Newman & Nollen, 1996; Vance, 2006) that cultural diversity at the subsidiary level must be accounted for through the appropriate customization of practices. SpareUnit HQ appears to have acknowledged the competition with customers for control over the LBUs (Andersson & Forsgren, 1996), and has chosen not to intervene.

5.1.3 Local solutions as a response to a standardized reverse logistics time frame

A difference between the case of Nestlé Waters (Busco et al, 2008) and that of SpareUnit was that the distributors (comparable to the LBUs) were involved in setting their own targets relating to the sales of international brand water. Thereby, the distributors had a chance to affect their own targets (Busco et al, 2008), which has been shown to increase the decision-influencing use of the performance measurement system on the subsidiaries (Dossi & Patelli, 2008).

Being unable to affect the standardized time limit, which could be considered as a target for the LBUs, some LBUs attempted to come to terms with the tight time frame through various local solutions, e.g. local repair centers. These repair centers could generally only perform less advanced repairs, and the parts were later sold as exchange parts. The Brazilian LBU had elected not to sell any exchange parts which they had not repaired themselves, in order to avoid the return process and associated customs issues. Warranty parts, on the other hand, needed to be sent back to the CDC. Local repair capabilities among the various LBUs were largely unknown by SpareUnit HQ, and were neither officially supported nor discouraged. Another way the LBUs adapted to the situation was through establishing local inventories. By using locally stored parts, the LBUs were able to service their customers faster, and also to initiate the reverse logistics process in the systems *after* having retrieved the faulty part from the customer. Thereby, the 30 days return time was easier to adhere to. However, such local inventories were generally not supported by SpareUnit HQ, as the idea of maintaining the CDC – to reduce the capital tied up and improve worldwide availability – was circumvented.

Summing up, a similar situation to that of Nestlé Waters (Busco et al, 2008) can be detected in the case of SpareUnit, whereby the worldwide process, i.e. the sending of parts back to the CDC, is standardized, whereas the local processes, i.e. interacting with customers, are not. Overall, the high autonomy of the LBUs in their local interactions allowed them to adapt their practices according to local circumstances. Using Busco's et al (2008) tension of convergence versus differentiation of practices, we have identified the 30 day return time frame as the main tension and a possible source of conflict between SpareUnit HQ's quest to standardize and the LBUs' need for local adaptations. When imposing standardized time limits without any interactions with

the LBUs, the tension can be viewed as being suppressed rather than managed, by SpareUnit HQ – in contrast to the situation at Nestlé Waters. Thus, SpareUnit HQ has acted in direct contradiction to the suggestions of Busco et al (2008), where an explicit exploration of the tension, rather than suppression, is needed in order to manage the tension. Further, the tension is suppressed as both perspectives are not represented at an overall SpareUnit level, as mainly SpareUnit HQ's perspective is considered (Doz & Prahalad, 1984).

Additionally, most of the local practices of the LBUs, e.g. local inventories and repair centers, only served to circumvent the issue of customers not returning faulty parts on time to the LBUs rather than attempt to actually change the customers' behavior. Attempts for changing the customers' behavior were only made by the French LBU and the Turkish LBU, through informal evaluation of customers' historical return performances and invoicing of customers with non-returned parts, respectively. Accordingly, SpareUnit HQ was not content with how the reverse logistics process was working on an aggregated level, and perceived the LBUs to be too lenient on their customers. However, there was a strong customer focus within the organization that would prove an obstacle to improving the returns of faulty parts from the customers.

5.2 Vertical versus lateral accountabilities: an overriding lateral accountability

Busco et al (2008) identify vertical and lateral relations as an important tension to manage. In the case of SpareUnit, both HQ and the LBUs identified the external customer as the reason why the reverse logistics process was not working according to the guidelines. Hence, the lateral relations between the LBUs and the customers are of interest for understanding the operations of the reverse logistics process. Accordingly, the lateral relation identified by Busco et al (2008) does not allow us to analyze the crucial inter-organizational relations, why we in the following section turn to Cäker's (2007) lateral dimension of accountability to customers.

5.2.1 Strong customer orientation throughout SpareUnit

The strong focus on customer satisfaction became evident during the interviews with the LBUs, why the LBUs could be described as very *accountable to their customers* (Cäker, 2007). Thus, the lateral accountability was strong. For example, all LBUs referred to the serving of customers as priority one, often referring to how much money a customer could lose if a part broke down and the customer's production was halted: “[large automotive customer] *are losing a hundred thousand dollars each minute*” claimed the Warranty Manager US (2013-03-22). Thus, delivery performance to customers was a focal issue in all LBUs. Customer satisfaction measures were also included in the performance evaluations at the LBUs (if such were performed), which mainly concerned delivery performance and customer interactions. Additionally, many LBUs referred to the Net Promoter Score as an important tool for evaluating their performance. To further improve delivery performance, several LBUs had established local inventories on their own initiatives, even though this was not supported by SpareUnit HQ. The Korean LBU explained that they even went as far as disassembling ProdUnit products ready for sale to get hold of spare parts for their customers.

The strong lateral accountability for customers of the LBUs was in line with SpareUnit HQ's intentions and also SpareUnit HQ's own actions, why the customer orientation strongly permeated the organization. For example, the Net Promoter Score was used throughout SpareUnit for evaluating customer satisfaction. In addition, other non-financial measures such as

OTD rates, responsiveness (for customer inquiries), stock availability and lead time were followed up from SpareUnit HQ's side. Such performance measures have been used to conceptualize the customer perspective of a balanced scorecard (e.g. Lee & Yang, 2011), and point to the existence of a high customer orientation within SpareUnit, supported by HQ. The high customer orientation can be considered in light of the events following the financial crisis in 2008 and 2009, when OTD rates fell drastically and customer satisfaction dropped. To regain the customers' faith, the organization focused on improving the OTD rates, and the reverse logistics process was deprioritized by SpareUnit HQ's own admission. In line with the focus on OTD and stock availability, rather than only offering exchange parts given stock availability, SpareUnit HQ made sure to reclassify new parts as exchange parts when exchange parts were out of stock, despite a direct negative impact on HQ's EBIT. In the background of the strong customer focus, SpareUnit HQ has enjoyed a consistently high profitability, which was mentioned by HQ personnel as an additional reason for the lack of focus on the reverse logistics process.

On the whole, the strong accountability to customers (of the LBUs) was in line with SpareUnit HQ's intentions. Thereby, lateral accountability to and vertical accountability for customers appeared to be aligned, and the vertical supported the lateral, similar to the case of Nestlé Waters (Busco et al, 2008); although the study by Busco et al (2008) only considers intra-organizational factors. The situation resembles the Beta case presented in Cäker (2007), where management were keen on making sure that Beta were meeting delivery targets to the external customer. As in the case of SpareUnit HQ and the LBUs, management succeeded in aligning Beta's interests with their own, making the Beta personnel consider the failure to meet delivery targets a non-option.

5.2.2 Conflicting goals when aiming to improve the reverse logistics process

Once the OTD rates had improved and reached a satisfying level, SpareUnit HQ started to focus on further improving other processes, e.g. the reverse logistics flow. From HQ's side, it was generally thought that there was significant room for improving the amount of faulty parts retrieved from the customers. Although acknowledging that the relationship with the customers was highly important, the assessment by HQ was that retrieving more parts from the customers would not deteriorate the customer relationships. The aim of management to add a financial dimension on the vertical accountability for customers strongly resembles the situation of Beta, where management wanted Beta to be accountable for the financial performance as well, due to suffering profits (Cäker, 2007).

However, the LBUs' perceptions of the importance of a well-operating reverse logistics process were not fully aligned with those of SpareUnit HQ why the accountability for customers (Cäker, 2007), with regard to returning parts on time, suffered. While the LBUs often pointed out the need of analyzing failures in warranty cases, and to maintain the exchange parts offering as the main reasons for the reverse logistics process, the financial effects of quality issues and exchange part unavailability were absorbed by SpareUnit HQ. For instance, SpareUnit HQ made sure to reclassify new parts when the exchange part inventory was diminishing: "*Today [the LBUs] see that, there are still [exchange parts available] even if they do not return. They have not been given a taste of the problems if they do not return*" (Supply Manager HQ, 2013-02-26). Thus, even though acknowledging some of the benefits of the reverse logistics process, the LBUs were not exposed to the effects of the reverse logistics process and did not consider the process as in their own interest. The quote of the Technical Support & Help-desk Responsible UK, when exemplifying his communication

with customers, highlights this: “*Well, **Sweden** require the faulty parts back to them, so could you please return the faulty part back to us so we can send it back to Sweden?*” [emphasis added] (2013-03-19). In addition, the sporadic and infrequent invoicing of the LBUs in the past, when parts were not returned, gave the LBUs little reason to concern themselves with the reverse logistics process and making sure that customers always returned faulty parts. Thus, a shared vision of the importance of the reverse logistics process appeared to be lacking.

Further, the LBUs’ strong accountability to customers resulted in a general feeling that bothering customers with non-returned parts could upset them, and in the end result in the loss of their business. Specifically, several LBUs expressed an unwillingness to forward invoices received from SpareUnit HQ to their customers, even though it was within their contractual right to do so. Some LBUs (e.g. Japan) threatened their customers with invoices as an attempt to make them return the faulty parts; however, invoices were never actually issued. A few LBUs also pointed out that when invoices had been issued in the past, customers had disputed them, which made these LBUs even more reluctant to invoice their customers. This resembles the situation of Beta (Cäker, 2007), where the risk of losing the customer’s business resulted in a strong focus on delivery performance and turning a blind eye to the halting financial performance.

A considerable reason for why the LBUs were wary of the customer relationships is that future spare parts sales were contingent on the sales of ProdUnit products. Therefore, losing sales of ProdUnit products as a consequence of bothering customers regarding non-returned spare parts was a risk thoroughly considered by the LBUs. This reasoning was especially apparent when discussing larger customers, who, in one order, could purchase almost a tenth of the yearly worldwide volume of ProdUnit products. In addition, some of the largest customers contributed to the development of ProdUnit products, and although product development was not conducted by the LBUs, they were aware of the influence from such customers. This could be another reason for why the LBUs were unwilling to bother such customers with invoices. The reasoning aligns with that of Lind & Strömsten (2006), who hypothesize that different customer relations affect the customer valuation method chosen. Especially, customers with whom a company has a high technical interface were hypothesized to be evaluated using longer time perspectives. It could be argued that an implicit valuation was made by the LBUs for the larger customers, where the negative effects of a deteriorated customer relationship were valued against the expected value from invoicing. Coincidentally, many LBUs singled out the large customers as those who were usually most difficult to retrieve faulty parts from; these customers often segregated the roles of purchasing parts from the LBU, handling the parts once delivered, and returning the faulty parts. Such a setup meant that the LBUs had to rely on the contact person at the customers’ organization to forward their request for faulty parts, which often delayed the process of retrieving parts.

Similar to the Beta case (Cäker, 2007), SpareUnit HQ had broadened the focus from satisfying customers to also improving profitability through a better operating reverse logistics process. However, unlike Beta, the profitability level at SpareUnit had been consistently high, despite the reverse logistics process not functioning the way SpareUnit HQ intended. As the Supply Manager at SpareUnit HQ phrased it, “*It [increasing the margins further] could be considered greedy*” and also claimed that “*they [the LBUs] think we are making enough [money], so it is no hurry [to return parts] as*

far as they are concerned” (2013-02-26). Therefore, the sense of urgency for improving profitability was arguably lower at SpareUnit than in the case of Beta.

Like the Beta personnel perceived top management’s profitability demands to be unreasonable (Cäker, 2007), many LBUs considered the demands from HQ related to the reverse logistics to be difficult to conform to, in particular the return time of 30 days. A further similarity with the Beta case is that the attention to serving customers was used as an excuse by the LBUs for deprioritizing SpareUnit HQ’s additional requirements, namely improving the operations of the reverse logistics process. In addition, there was a perceived trade-off of the two requirements imposed by SpareUnit HQ. Pushing the customers to return parts and invoicing them in unsuccessful cases was perceived as contradictory to being customer oriented, and potentially even a way of losing future business. On the other hand, adapting service interventions to suit the customers made it difficult to adhere to the time frame of the reverse logistics process.

In the case of Nestlé Waters, vertical relations were found to support the lateral ones through enabling lateral communication between subsidiaries (Busco et al, 2008). However, in the case of SpareUnit HQ and the LBUs, this was not the situation after the focus on improving the returns had been established by HQ. The new requirement of reverse logistics returns introduced a new vertical dimension, which did not support the previously established lateral accountability to customers. Thereby, SpareUnit HQ faced control issues and conflicts arose.

5.2.3 Lack of control over customer returns led to a sense of dejection among some LBUs

Several parallels can be drawn to the two cases presented by Cäker (2007). For the LBUs, although not undermining the confidence in the formal system as in the Alpha case (Cäker, 2007), the attitude toward the 30 day time frame in the reverse logistics system was a feeling of insufficient flexibility and adaption to special circumstances. For instance, many LBUs raised the concern that when performing service interventions, they were dependent on the customer allowing them access to their site in order for the LBUs’ technicians to replace the faulty part. However, in some cases, the customers postponed the service interventions to minimize the disruption of their own production. In those cases, the LBUs might already have ordered the parts from CDC on behalf of the customer, and thereby initiated the 30 days return time, but were not allowed access to service the customer. For instance, the Warranty Manager US claimed that it had once taken six months for one of their larger customers to allow the US LBU to replace one part. The French LBU also noted that deliveries of parts from the CDC had in some instances been delayed, which in turn forced a rescheduling of the service interventions and thereby made it difficult to perform the reverse logistics task within the designated time.

The inability of the LBUs to control when service interventions could be carried out thereby resembles the reception of already over-due production orders in the case of Alpha (Cäker, 2007). In the Alpha case, this resulted in the circumvention of the formal system in favor of direct communication with the customer. In the case of the LBUs, it was not possible to circumvent the formal system when handling warranties and ordering exchange parts. However, the 30 day time frame resulted in several LBU representatives expressing that the system was inflexible and expressed a general dejection over the possibilities of conforming to the process. The locally implemented repair centers and inventories were used to, in some way, circumvent the 30 days’ time frame.

The situation, whereby the LBUs were dependent on the customers' cooperation to complete the reverse logistics process within the time limit, can be compared to the setup found in Håkansson & Lind's (2004) study. They found that the managers of a Key Account Management (KAM) unit within Ericsson were evaluated on their ability to get their customer to implement a specific practice¹⁸. In that case, the managers of the KAM unit perceived the organizationally overlapping accountability to be positively challenging (similar to Frow's et al (2005) finding on intra-organizational overlapping accountabilities). The LBUs, on the other hand, did not describe the situation in positive terms. Unlike the case presented by Håkansson & Lind (2004), where the KAM unit only had one customer and even expressed more commonality with the customer than with other Ericsson units, each LBU had dozens of customers – the largest ones had up to a couple of thousand customers. Hence, it was not possible to establish as close relationships with each customer as in the case presented by Håkansson & Lind (2004), which might explain why the overlapping accountabilities were not found to be positively challenging by the LBUs.

5.2.4 Accountability to customers – a strong inertia difficult to overcome

Hence, some aspects of the vertical accountability, namely the focus on customer satisfaction, were fulfilled by the LBUs, whereas the accountability of performing the reverse logistics process was not always fulfilled. It seems as if the willingness to retrieve and return parts was not as strong as the willingness to support the customer, why it could be questioned whether the lateral accountability to the customers had gone “too far”, as in the case of Beta (Cäker, 2007). It was proposed that the overriding lateral accountability in Beta was related to an unbalanced use of management accounting (Cäker, 2007), where non-financial measures were used to a large extent. Similarly, the LBUs were followed up on several non-financial measures relating to customer satisfaction, while basically not being evaluated at all on their reverse logistics performance.

The two cases presented by Cäker (2007) and the situation of SpareUnit point to an inertia that can be difficult to overcome. The difficulty of changing focus from a strong accountability to customers to the accountability *for* customers, when a trade-off between the two is perceived, can be due to the socializing nature of lateral accountabilities (Roberts, 2001). Drawing on the case of Alpha (Cäker, 2007), the LBUs' relative physical proximities and frequent interactions with customers, vis-à-vis SpareUnit HQ, might have fostered a socializing accountability. This in turn can offer an additional explanation for why the lateral accountabilities to customers overruled some of the vertical ones to SpareUnit HQ. Boyce (2000) argues that customer accounting practices serve to obscure the understanding of critical matters arising from the trading relationship, resulting in that customers are seen “*only for the dollars they represent and are thereby devalued as human beings*” (p. 652). However, the cases of SpareUnit and those presented by Cäker (2007) show that the polar opposite will likely not be considered tenable by management. In table 2, an overview of the findings of Cäker (2007) and the case study performed by the researchers is found.

¹⁸ Interested readers are referred to page 62-63 in Håkansson & Lind (2004).

Case study	Alpha (Cäker, 2007)	Beta (Cäker, 2007)	LBUs
<i>Lateral accountability</i>	High	High	High
<i>Vertical accountability</i>	Low	Initially high, then low as management shifted emphasis to profitability	Initially high, then low as management shifted emphasis to improving the reverse logistics process
<i>Profitability</i>	Not disclosed	Low	High
<i>Reasons for low vertical accountability</i>	Low general confidence in the management accounting system; personal relations, common history, and geographical proximity to customer	Strong focus on customer satisfaction; management's profitability demands perceived as unreasonable, adequate performance in non-financial aspects	Inconsistent demands of customer focus and invoicing and retrieving parts from customers; sense of low flexibility of reverse logistics time frame. Geographical proximity?
<i>Performance evaluation</i>	Delivery performance	Delivery performance, financial targets	Non-financial measures, EBIT

Table 2: Overview of the cases of Cäker (2007) and the LBUs of SpareUnit

In conclusion, SpareUnit HQ was dissatisfied with the way the LBUs managed the tension of being accountable to their customers and at the same time performing the reverse logistics in line with the directives imposed by themselves. The LBUs, on the other hand, were distanced from the effects of an ill-working reverse logistics process, and in line with the strong customer focus – also promoted by SpareUnit HQ – the reverse logistics process was deprioritized. As a way of increasing the LBUs' awareness of the costs associated with non-returned parts, SpareUnit HQ started to stringently enforce invoicing of late returns as soon as the 30 day return time for faulty parts had lapsed.

5.3 Centralization versus decentralization of decision-making: centralized decision to decentralize the management of accountabilities

5.3.1 Centralized decision to improve the reverse logistics process through stringent invoicing

With the described lack of shared vision between SpareUnit HQ and LBUs, such a tool was not available for managing the relation between headquarters and subsidiaries (as suggested by e.g. Bartlett & Ghoshal, 2002; Norhia & Ghoshal, 1994). Instead, in an effort to improve the reverse logistics process, SpareUnit HQ decided to implement a more stringent approach to invoicing overdue returns from the LBUs. The process of invoicing the LBUs had proven effective in the past, as sporadic efforts to invoice late returns had resulted in drastic improvements of the return rates. The effectiveness of invoices was acknowledged by the Service Manager UK, who did not hide his opinion that the invoicing approach was too lenient if SpareUnit HQ really wanted the LBUs to improve their reverse logistics efforts. He argued that stringent invoicing would give the reverse logistics a higher priority within his LBU due to the tangible financial effects of not returning parts in time.

The decision to enforce invoicing more stringently was taken centrally by SpareUnit HQ, and implied that as soon as the return time frame had lapsed, the Order and Sales-Support

department had the authority to issue an invoice to the responsible LBU. This, in turn, sped up the process and reduced the administrative work compared to the previous approach, whereby an e-mail was sent out to the LBUs before any invoices were issued, giving the LBUs an additional chance to return the parts before an invoice was issued. As an additional effort to reduce the administration of the process, it was decided by SpareUnit HQ that late returns would not be credited. Instead, the LBUs would be asked if they wanted the part back, with the result that returning parts late was as good as not returning them at all. The already *centralized decision-making authority*, originating from the hierarchical position of SpareUnit HQ, was thereby maintained and actively used – compared to the previous situation where SpareUnit HQ did not actively enforce its decision-making authority.

Through taking a central decision to implement stringent invoicing, SpareUnit HQ can be interpreted as having attempted to *visualize* the tension of lateral and vertical accountabilities. By quantifying the effects of non-returns (or delayed returns) in financial terms and ascertain that also the LBUs were affected by such non-returns, the invoicing from SpareUnit HQ served to visualize the tension between lateral and vertical accountability by ensuring that both perspectives were represented (e.g. Busco et al, 2008; Doz et al, 1981; Doz & Prahalad, 1984) at the LBUs. Thereby, SpareUnit HQ has sought to change the previous situation, where the LBUs were largely unaffected by the performance of the reverse logistics process and the costs were absorbed by SpareUnit HQ.

Many LBUs were not happy with the new approach to invoicing as they felt that their local circumstances were not considered when the decision was taken. The Warranty Manager US even went as far as claiming that the LBUs did not have a say in the discussion since SpareUnit HQ had already made up their minds concerning the stringent invoicing. Several LBUs expressed a disappointment with the more stringent approach, highlighting the need of a dialogue before an invoice was sent. As the 30 day return period was often perceived as too short, and late returns would no longer be credited afterwards, the LBUs feared that they would be receiving more invoices than before. Due to the high accountability to customers, with a corresponding unwillingness to forward the invoices to the customers, the invoices received would negatively impact the results of the LBUs. The Warranty Manager US noted that previously, there would be communication between his LBU and SpareUnit HQ, whereas now they would receive an invoice. Likewise, the Warranty Manager and Exchange Orders and Returns Responsible from the French LBU emphasized that the lack of communication prior to invoices was a turn for the worse.

5.3.2 Decentralized management of vertical and lateral accountabilities

The stringent invoicing of LBUs for delayed or non-returned parts could be interpreted as an attempt by SpareUnit HQ to *decentralize* the management of the tension. Thus, decision-making authority concerning the choice between the customer and the return of parts was thereby delegated to the LBUs. Previously, SpareUnit HQ had to manage the situation of how far they would go to ensure customer satisfaction, e.g. by deciding whether or not to reclassify new parts to exchange parts. In line with the customer focus throughout the organization, SpareUnit HQ had always made sure to reclassify new parts at their own expense. SpareUnit HQ personnel acknowledged that if they were to stop the reclassification of parts, it would likely serve as a call for improving the process among the LBUs. However, rather than following this path, the

initiative to enforce a more stringent invoicing process can be seen as SpareUnit HQ's way of acknowledging their lack of knowledge of the LBUs critical relationships (Andersson & Forsgren, 2000). Instead of stopping the practice of reclassifying parts, which would inevitably result in unavailability and perhaps dissatisfaction of customers, SpareUnit HQ chose to allocate the costs to the LBUs. By not mandating how the LBUs should go about changing external customers' behavior as to increase the number of parts retrieved, e.g. by leaving it to the LBUs to decide whether or not invoices should be forwarded to the customers, SpareUnit HQ has let those who have the best knowledge of the trading relationship, i.e. the LBUs, to manage the tension of vertical and lateral accountabilities. Busco et al (2008) argue that the managing of tensions "*does not necessarily require choices to be made between the two polarities, but it does require an **awareness** of their simultaneity and a determination to realise their potential*" (p. 107, emphasis added). This is arguably what SpareUnit HQ has aimed to achieve through the stringent invoicing of the LBUs.

Similar to the distributors of Nestlé Waters (Busco et al, 2008), the LBUs were responsible for the profit in their local markets. However, prior to the stringent enforcement of invoices, integrating mechanisms such as brand champions or shared budgets, as used in the case of Nestlé Waters (Busco et al, 2008), were lacking. The stringent invoicing can therefore be considered an *integrative mechanism*, in the sense that the management of the tension between the customer focus and the reverse logistics process was delegated from SpareUnit HQ to the LBUs. Through aligning the incentives of the LBUs with those of SpareUnit HQ, the distance between SpareUnit HQ and the LBUs was collapsed (compare with Busco et al, 2008; Quattrone & Hopper, 2005). This distance can be referred to as *strategic distance*.

However, by relying on invoices as a way of improving the reverse logistics process, SpareUnit HQ has not addressed the identified lack of shared vision regarding the importance of the reverse logistics process between SpareUnit HQ and the LBUs. Therefore, the stringent invoicing can be said to have had a disintegrative effect by negatively impacting the social relationships between SpareUnit HQ and the LBUs. In particular, the Supervisor of Customer Service Planning & Purchasing US referred to the changes of the invoicing procedure as: "*it is not as team-focused, or as 'One InduComp'-focused as it was in the past.*" (2013-03-22). Therefore, we suggest that through the stringent invoicing, the *relational distance* between SpareUnit HQ and the LBUs has been enforced. Kostova & Roth (2002) discuss what they term "ceremonial adoption", whereby a practice is adopted without an actual belief in the value of it. By not addressing the lack of shared vision, a situation of ceremonial adoption of the reverse logistics process can possibly result. Comparing to the study by Busco et al (2008), where the performance management system was found to have an integrating effect on Nestlé Waters, it would appear as if the centrally imposed practice of strict invoicing by SpareUnit HQ might instead have had both an integrating effect (due to collapsed strategic distance) and a disintegrating effect (due to enforced relational distance).

5.3.3 Invoicing – a conditional management of the tension between vertical and lateral accountabilities?

By implementing the stringent invoicing, SpareUnit HQ appears to have delegated the management of the vertical and lateral accountabilities to the LBUs. In figure 4, the management of the vertical and lateral accountabilities by the LBUs prior to the stringent invoicing is

illustrated, where the lateral accountability to customers overrode the vertical accountability for customers. However, by implementing the stringent invoicing approach, rather than increasing the LBUs vertical accountability for customers, SpareUnit HQ has moved the center of the seesaw in order to compensate for the overriding lateral accountability to the customer. This is illustrated in figure 5. Thus, in order to increase the efforts of the LBUs of improving the amount of parts retrieved from customers, SpareUnit HQ has tampered with the management of the tension by increasing the cost of an overriding lateral accountability and thereby attempted to make it easier for the LBUs to make the seesaw balance. Having been dissatisfied with how the LBUs managed the tension unconditionally, we suggest that the invoices added a condition under which the LBUs were now expected to manage the tension, tilting the seesaw in favor of vertical accountability. Thus, the management of this tension is arguably conditional when compared to how Nestlé Waters used the performance measurement system to achieve a management of tensions (Busco et al, 2008).

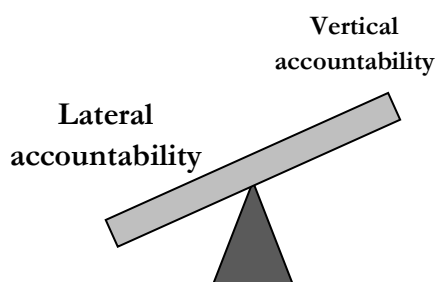


Figure 4: SpareUnit prior to stringent invoicing

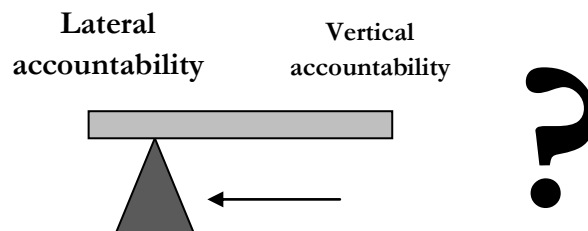


Figure 5: Conditional management of tensions

At the time of this study, the stringent invoicing was still in its infancy. The effects were therefore not known, neither regarding whether more parts were retrieved from the customers, nor how the relations between SpareUnit HQ and the LBUs were affected. The tension between centralization and decentralization, on the other hand, seemed to be managed by SpareUnit by allowing the LBUs autonomy in decisions regarding their local markets. Thereby, decision-making authority was delegated to the LBUs for the decisions which concerned the LBUs the most, i.e. those concerning interactions with customers. Simultaneously, SpareUnit HQ maintained centralized decision-making authority over the overview and the overall control of the process.

Summing up, the conceptual framework has proved useful for analyzing the situation at SpareUnit. It was found that the LBUs were given substantial autonomy in how they interacted with customers in their local markets. However, the reverse logistics time frame was largely standardized and did not account for local circumstances to any significant degree. The time frame was thereby perceived as inflexible, and many LBUs initiated local solutions in an attempt to deal with the situation, while not detracting from servicing customers. This substantial autonomy for interacting in the local markets, together with the strong emphasis on customer focus by SpareUnit HQ, resulted in the LBUs being mostly accountable to customers rather than for them towards SpareUnit HQ. This was expressed in that the LBUs' primary focus was to satisfy their customers, rather than ensuring that the reverse logistics process was operating per SpareUnit HQ's expectations. In order to change this situation, SpareUnit HQ used its formal

hierarchical power to implement stringent invoicing as a way of improving the reverse logistics process. Thereby, SpareUnit HQ delegated the management of the tension between accountabilities to and accountabilities for customers to the LBUs. Using a seesaw analogy, rather than increasing the weight of vertical accountabilities, the invoicing can be compared to moving the center of the seesaw as to make it balance. Thereby, we suggest that this delegation of tensions can be described as a conditional management of the tension. Through implementing the stringent invoicing, SpareUnit HQ has been able to collapse the strategic distance; however, the relational distance has increased why it can be questioned whether the stringent invoicing will lead to a balanced management of the tension or not.

6. Conclusion

Initially, we posed the research question *“How can management’s ability to influence external customer behavior be affected by intra-organizational characteristics?”*, and added the sub-question *“What intra-organizational characteristics affect management’s ability to influence external customer behavior?”* To answer these questions, a qualitative case study at a large manufacturing MNC, named InduComp, was conducted. Specifically, the aftermarket unit of a sub-division, SpareUnit, was studied, where 24 interviews were conducted in total, of which twelve involved personnel from headquarters and twelve involved personnel from ten different local business units (LBUs). The reverse logistics process employed by SpareUnit was chosen as the focal point of this study, as it incorporates both inter- and intra-organizational efforts and thereby captures the width of the research question. To frame the analysis, a conceptual framework was synthesized from the theoretical contributions by Busco et al (2008) and Căker (2007). The framework narrows down the intra-organizational characteristics to: vertical and lateral accountabilities (for and to customers, respectively), convergence and differentiation of practices; and centralization and decentralization of decision-making. In addition, performance management systems are identified as important tools for managing these intra-organizational characteristics, and are included in the framework.

6.1 Overriding lateral accountabilities countered with centralized decision-making

Our analysis highlighted that the reverse logistics process was rather standardized across the LBUs. Some LBUs had special arrangements with SpareUnit HQ regarding the reverse logistics due to customs restrictions, but for most, the same time frame was given. At the same time, the LBUs were given significant autonomy in their interactions with external customers, why they could – and did – differentiate how they interacted with their customers, and also developed local solutions, e.g. local inventories and repair centers, to help them to better comply with the standardized reverse logistics process. However, SpareUnit HQ still perceived that there was room for improving the performance of the reverse logistics process.

A strong lateral accountability to customers was identified throughout the SpareUnit organization, supported by headquarters and adopted by the LBUs. This focus on satisfying customers was expressed by a strong emphasis on non-financial measures such as OTD, inquiry responsiveness and stock availability. All LBU representatives further identified customer satisfaction as being the overriding objective, and this was also acknowledged by SpareUnit HQ. This shows strong resemblance to the Beta case (Căker, 2007) where management initially

supported a strong customer orientation. Thus, for both SpareUnit and Beta, the vertical relations supported the lateral ones (Busco et al, 2008), and management was in control.

However, as SpareUnit HQ started to emphasize the importance of the reverse logistics process, the LBUs remained focused on customer satisfaction and used the customer focus as an excuse to deprioritize the reverse logistics process. The focus on changing the customers' behavior to better return faulty parts was perceived as incompatible with being customer oriented. This was similar to the case of Beta (Cäker, 2007), where Beta remained focused on customer satisfaction and disregarded management's call for improving the financial performance. Hence, the strong lateral accountability of the LBUs was identified as a prominent intra-organizational characteristic that impeded management's ability to influence external customer behavior. Thus, when the vertical relation seized to support the lateral ones, control, as perceived by management, suffered.

In order to increase the priority of the reverse logistics process among the LBUs, SpareUnit HQ decided to enforce a more stringent approach to invoicing late returns from LBUs. Through the invoices, SpareUnit HQ ensured that the effects of a too strong lateral accountability to customers were represented at the LBU level, and thus delegated the management of lateral and vertical accountabilities to the LBUs. The invoices can therefore be considered an integrating mechanism comparable to the budget introduced in the case of Nestlé Waters (Busco et al, 2008). Busco et al (2008) argue that the managing of tensions “*does not necessarily require choices to be made between the two polarities, but it does require an **awareness** of their simultaneity and a determination to realise their potential*” (p. 107, emphasis added). This is arguably what SpareUnit HQ has aimed to achieve through the stringent invoicing of the LBUs. Hence, the centralized decision-making was a second prominent intra-organizational characteristic that aided management's ability to influence external customer behavior.

Busco et al (2008) similarly found that a centrally imposed performance measurement system in Nestlé Waters served to make the international brands and the local brands interact and thereby become aware of each other's perspective, and thus allowed for the management of tensions between the local and the global. However, we argue that SpareUnit HQ has skewed the conditions under which the LBUs are expected to manage the tension. Using a seesaw analogy with vertical and lateral accountabilities on each side, we propose that rather than increasing the weight of the vertical accountability, e.g. by addressing the lack of a shared vision regarding the importance of the reverse logistics process, SpareUnit HQ has moved the center of the seesaw to compensate for the heavy emphasis on lateral accountabilities throughout the LBUs. As such, the costs of an overriding lateral accountability were increased, with the intention that the seesaw would be more equally balanced by the LBUs. Therefore, there is now a condition under which the LBUs are supposed to manage the tensions. The effects of such conditional management of tensions had implications on the perceived distance between subsidiaries and headquarters. Although the strategic distance was collapsed, as the incentives of the LBUs were better aligned with those of SpareUnit HQ due to the stringent invoicing, the relational distance was instead enforced. This is as the stringent invoicing negatively affected the social relationships between the LBUs and SpareUnit HQ.

Referring to the two research questions posed, we have identified the LBUs' strong lateral accountability to customers and the centralized decision-making by SpareUnit HQ as the two

prominent intra-organizational characteristics that affected management's ability to influence external customer behavior in this case study. Lateral accountability to customers impeded HQ management's ability to increase the amount of parts retrieved from customers, whereas centralized decision-making was used to counter the strong lateral accountability and attempt to increase the LBUs' efforts to improve the reverse logistics process by visualizing and delegating the management of the vertical and lateral accountability tension to the LBUs.

6.2 Implications for intra-organizational management

Overall, this study has highlighted how the inertia of well-established organizational mindsets can prove a substantial obstacle when a competing requirement is added. By emphasizing the importance of retrieving more faulty spare parts from customers within the strongly customer oriented organization, SpareUnit HQ imposed what the LBUs perceived as conflicting goals. The LBUs, in turn, used the customer orientation as an excuse for deprioritizing SpareUnit HQ management's new directives. Busco et al (2008) found that in Nestlé Waters, the vertical relations supported the lateral ones. Similar to Cäker (2007), this study shows that when the vertical no longer supports the lateral, control over the organization suffers. Thus, this study has highlighted that management must be wary that enforcing a customer focus throughout an organization can severely hamper management's ability to change the behavior of organizational units in the future.

Busco et al (2008) state that "*further studies are needed on the roles played by PMS in both enabling and hampering processes of organizing* (p. 122)". This study proposes that the performance management system used by SpareUnit to increase the performance of the reverse logistics process – i.e. stringent invoices for overdue returns – both enabled and hampered the process of organizing. By collapsing the strategic distance between SpareUnit HQ and the LBUs, the invoices enabled the process of organizing SpareUnit as an integrated unit. By enforcing the relational distance, the invoices arguably also hampered the process of organizing SpareUnit. Thereby, the concept of distance can be divided into relational and strategic distance. However, as this study was conducted when the stringent invoicing was still in its infancy, it cannot offer any insights into the consequences of the enforced relational distance.

Finally, this study has emphasized the importance of inter-organizational effects on intra-organizational control. As several studies have shown (e.g. Andersson & Forsgren, 1996; 2000; Håkansson & Lind, 2004, Ghoshal & Bartlett, 1990), the inter-organizational setting has implications for intra-organizational coordination. This study thus reiterates the need to incorporate a cross-organizational perspective when studying intra-organizational control.

6.3 Limitations and calls for future research

Apart from the general limitations associated with a case study, as discussed in the methodology section, this study is additionally limited by several case specific aspects. Firstly, the relatively short time-span of less than three months over which the empirical data was gathered limits the conclusions that can be drawn regarding the effects of the stringent invoicing approach. During this period, the studied reverse logistics process was in a phase of change, where the application of more stringent invoicing had only recently began. Therefore, neither the amount of parts retrieved from customers, nor the effects on the relations between SpareUnit HQ and the LBUs as a consequence of the new approach were fully known. This study can thus only go as far as

proposing that the strategic distance between SpareUnit HQ and the LBUs has been collapsed, while the relational distance has been enforced.

Secondly, the limited scope of this study restricted the number of interviews that could be conducted with each LBU. It would have been preferable to expand the interviews to include personnel at hierarchical levels below those of the service and warranty managers that were mostly represented in the interviews with the LBUs. Nevertheless, by interviewing service and warranty managers, the researchers have made sure to interview the personnel most involved in the reverse logistics process at each LBU.

For future research, it would be interesting to continue this study by examining how the LBUs choose to manage the tension of satisfying customers while attempting to change their behavior as to retrieve more parts. Therefore, we call for studies of how organizations manage the focus of customer satisfaction while ensuring high profitability at the operational level. Specifically, it would be interesting to examine the effects on the customer relations of decisions taken by supplier headquarters and their operating units in the attempt to simultaneously achieve customer satisfaction and high profitability. It would also be interesting to examine the effects of the implemented stringent invoicing, specifically with regard to the strategic and relational distance between SpareUnit HQ and the LBUs. Will the collapsed strategic distance outweigh the effects of an increased relational distance? Therefore, studies on the simultaneous effects of strategically integrating, but relationally disintegrating, decisions within divisionalized organizations are also called for.

7. References

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8. Appendix

8.1 Data sources

In total, 24 interviews have been performed, of which two were pre-study interviews. The duration of the interviews (disregarding the pre-study interviews) ranged between 40 minutes and one hour 43 minutes, with an average of one hour 9 minutes.

8.1.1 Interviews conducted

Pre-study interviews (2)

2012-09-24 former Managing Director of SpareUnit, SpareUnit headquarters, 1 h

2013-01-29 Manager Sales Support, SpareUnit headquarters, 2 h 30 min

Interviews (22)

2013-02-26 Manager Sales Support, SpareUnit headquarters, 45 min

2013-02-26 External Consultant (examines the reverse logistics process), SpareUnit headquarters, 1 h 30 min

2013-02-26 Controller, SpareUnit headquarters, 1 h 4 min

2013-02-26 Supply Manager, SpareUnit headquarters, 49 min

2013-02-26 Systems Operator, SpareUnit headquarters, 58 min

2013-03-19 Technical Support Help-desk Responsible, sub-divisional LBU United Kingdom, 1 h 28 min

2013-03-20 Service Manager, sub-divisional LBU China, 59 min

2013-03-20 Warranty & Reverse Logistics Manager, sub-divisional LBU Germany, 1 h 2 min

2013-03-22 Warranty Manager, sub-divisional LBU United States, 1 h 27 min¹⁹

2013-03-22 Service Manager, sub-divisional LBU United Kingdom, 1 h 7 min

2013-03-28 Service Manager, sub-divisional LBU India, 1 h 26 min

2013-04-02 Warranty Manager, sub-divisional LBU Brazil, 1 h 24 min

2013-04-04 Service Manager, sub-divisional LBU Korea, 1 h 8 min

2013-04-05 Managing Director of SpareUnit²⁰, SpareUnit headquarters, 1 h

2013-04-05 Warranty Manager, sub-divisional LBU France, 1h 43 min

¹⁹ For this interview, the Warranty Manager had invited the three fellow employees: the Supervisor of Customer Service Planning & Purchasing; the Customer Service Buyer/Planner; and the Receiving and Inventory Lead. Of these, only the first mentioned person actively contributed to the conversation, albeit to a limited extent.

²⁰ Globally responsible for spare parts and logistics; locally responsible for back-end services in Sweden

2013-04-05 Order & Sales-Support Responsible (person 1) together with Order & Sales-Support Responsible (person 2), SpareUnit headquarters, 1 h

2013-04-10 Managing Director Division Northern Europe, divisional headquarters, 40 min

2013-04-18 Responsible for Spare Parts Sales, sub-divisional LBU Turkey, 1 h 20 min

2013-04-18 Manager Spare Parts & Logistics, sub-divisional LBU Japan, 1 h 7 min

2013-04-18 Manager Business Development²¹, sub-divisional headquarters, 1 h

2013-04-18 Global Technological Support Manager, sub-divisional headquarters, 1 h

2013-04-19 Logistics & Spare Parts Manager together with Exchange Orders & Returns Responsible, sub-divisional LBU France, 1 h 24 min

8.1.2 Other pre-study, inter-personal interactions

2013-03-13 Observation of meeting between Warranty & Reverse Logistics Manager, sub-divisional LBU Germany & External Consultant, SpareUnit HQ, 44 min (pre-study before interviewing the LBUs).

8.1.3 Documents collected

In addition to the interviews, the following documents have been collected and reviewed during the case study.

- Directive for the exchange process (within reverse logistics)
- Directive for sending reverse logistics spare parts from the LBU to the CDC
- Directive for the warranty side of the reverse logistics (i.e. returning warranty parts)
- Directive for customer returns of new parts (used when LBU has ordered more parts than were necessary to repair the robot)
- Excel sheet of all LBUs and their total number of warranty issues and number of warranty issues not returned on time
- PowerPoint overview presentation of the sub-division (131 slides)
- PowerPoint presentation explaining the reverse logistics process (9 slides)
- PowerPoint presentation containing a flow chart for the reverse logistics process (6 slides)
- PowerPoint presentation put together by the Supply Manager showing sales numbers for exchange parts and data regarding the re-classification of new parts to exchange ones (e.g. number of re-classifications per component class, per month and the calculated loss in EBIT due to re-classifications, etc.) (7 slides)

²¹ This role also includes global pricing

8.2 Interview schedule

In the following, the themes, along with examples of questions, which were the base for the semi-structured interviews can be found. However, it should be noted that the questions, following a semi-structured approach, have been varied to suit the specific person interviewed, why all questions were not necessarily used during each interview while others, not included in the interview schedule, might have been added.

General questions

- *Current position including main responsibilities*
E.g.: Can you briefly describe what your current position entails?; How long have you been at your current position?;
- *General information on the reverse logistics process*
E.g.: How are you involved in the reverse logistics process on a daily basis?; What is your interest in the reverse logistics process?²²; Do you have any experience from how the current reverse logistics process was developed?; Do you know if the LBUs were involved in determining how the current system was designed? If so, to what extent? Can you characterize your relationship with SpareUnit HQ (*if interview subject was an LBU representative*) or the LBUs (*if interview subject was a SpareUnit HQ representative*)?

The reverse logistics process

- *Process set-up*
E.g.: Can you describe the current process set-up according to the guidelines set by SpareUnit HQ?; What are the main aspects in the reverse logistics process, in your point of view?; How does your LBU conform to the process as suggested by SpareUnit HQ (*only for LBUs*)?
- *Perceptions of the current reverse process*
E.g.: What do you believe are the reasons for having a reverse logistics process?; What is your perception of the current process?
- *Prioritization and resources*
E.g.: How are you evaluating the reverse logistics process?; How do you prioritize reverse logistics among your other assignments?; What resources are needed for handling the reverse logistics process?; Are the resources at your department/your LBU sufficient for handling the reverse logistics process?

Targets and evaluation

- *Evaluation*
E.g.: How are you evaluated by your superior?; Who is evaluating you?
- *Targets and target achievement*
E.g.: Is your performance compared to targets?; On a scale 1-10 (where 10 is very difficult), how difficult would you say that it is for you to achieve these targets?

²² Normally posed as a question following “How are you involved in the reverse logistics process on a daily basis?” to e.g. managers at SpareUnit HQ which were not directly involved in the reverse logistics but rather were interested in its performance.

- *Existence of rewards for target achievement*
E.g.: Is target achievement rewarded in any way?

LBU-specific questions (*LBU only*)

- *Customer specific information*
E.g.: How many individual customer does your LBU have?; Do you categorize customers?; How is customer profitability assessed by your LBU?
- *Returns of parts from customers*
E.g.: Are certain customer types particularly prone to fail to return the broken parts?; How do you make sure to get the parts back from the customers?; Are there instances when your LBU does *not* return parts to the CDC after receiving them from the customer?
- *Returns to CDC and SpareUnit HQ*
E.g.: Are there instances when your LBU does *not* return parts to the CDC after receiving them from the customer?; What are the consequences for not returning parts to CDC?
- *Other*
E.g.: Do you have a local repair center?; Do you have a local inventory?