The tortuous road to globalization for Volvo’s heavy truck business: Extending the scope of the Uppsala model

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ABSTRACT

The globalization of a firm is a time-consuming and incremental process similar in nature to the internationalization process. We adapt the Uppsala Internationalization Process Model (Johanson & Vahlne, 1977, 2009) to explain the globalization process. We define globalization as an effort to optimize a business in terms of its configuration and coordination systems. Hence, the globalization process is about making changes in these two aspects of firms. Globalization, like the internationalization process, is characterized by the management of complexities and uncertainties and that requires learning and commitment building. We “test” a globalization process variant of the Uppsala model on the globalization of Volvo’s heavy truck business. We find support for our model, and find that the globalization process is indeed tortuous, and certainly not as easily managed as sometimes suggested by economists and management gurus.

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1. Introduction

In the 1980s the attribute “global” began to appear frequently in the business and management literature. Work was being done on global marketing (Levitt, 1983), global strategy (Ghoshal, 1987; Kogut, 1985; Yip, 1992), and global competition (Porter, 1986a, 1986b). Most authors seemed to have assumed that firms about which they were writing were global and so they discussed how to exploit global scale, scope and specialization. Then Rugman and Verbeke (2004) demonstrated that few firms are truly global. There is clearly a gap between academic notions of the globalization process and reality.

In an analysis of globalization and the strategy of multinational enterprise Buckley and Ghauri (2004) demonstrated the complexity of deciding on location and control strategies. Against this background, and in light of the uncertainty in which decisions must be made, we hypothesize that the gap between theory and practice can be explained by the time-consuming and resource-demanding process that is necessary for sustained globalization of the firm. We propose a modified version of the Uppsala internationalization process model (Uppsala model) and apply it to a case study of the globalization of Volvo’s heavy truck business.

We created the Uppsala model three decades ago because we found a gap between received theoretical explanations of firm internationalization and actual company behaviour. We found no evidence of optimization, but rather an incremental
process of adjustments consequent to increased knowledge and changing commitments (Johanson & Vahlne, 1977, 2009). Judging from the classic volume on competition in global industries edited by Porter (1986b), and the company behaviour we have observed, e.g. the case of Volvo's heavy truck business (see below), a similar situation exists when it comes to globalization. Porter and his co-authors prescribe how to manage the global corporation. For example, firms “must decide how to spread the activities in the value chain among countries” (Porter, 1986a, p. 23), when, as is the case for the Volvo Group, they must contend with a number of units located in places that are far from optimal and with capabilities and product ranges that do not necessarily fit current needs because of their previous internationalization and acquisitions. Of course, the globalization process is not as smooth as management researchers sometimes portray it.

The aim of this paper is to describe and explain the characteristics of the globalization process. In addition, we are interested in seeing if the Uppsala model, with some modifications, can be used to explain the nature of the globalization process of the firm. That is, we make adjustments to the model to fit the issue at hand, namely the globalization process, which we see as something quite different from the internationalization process. The nature of globalization is nicely captured by Buckley and Ghauri (2004, p. 81): “In examining the changing location and ownership strategies of MNEs, it shows that the increasingly sophisticated decision making of managers in MNEs is slicing the activities of firms more finely and in finding optimum locations for each closely defined activity, they are deepening the international division of labour. Ownership strategies, too, are becoming increasingly complex, leading to a control matrix that runs from wholly owned units via FDI through market relationships such as subcontracting, including joint ventures as options on subsequent decisions in a dynamic pattern.”

We believe that the mechanisms of the Uppsala model are sufficiently general to allow for them to be used for all managerial processes that are characterized by uncertainty, ambiguity and complexity, such as internationalization, firm evolution, entrepreneurship and, as we show in this paper, globalization. Presumably, each of these processes requires some adjustment. That is why we launch the Globalization Process Model.

In the following section we present the modified Uppsala model, and outline its theoretical underpinnings. Next, we examine the globalization of the heavy-truck business of the Volvo Group (to be short often named just “Volvo”). Finally, we discuss the case findings and draw some theoretical and managerial conclusions.

2. Theoretical background

Internationalization is usually seen as having two dimensions: geography and mode of operation. According to Porter (1986a, 1986b), globalization has two other dimensions: configuration and coordination. Configuration has to do with the design and redesign of the value chain. Coordination is about creating a system to adjust the roles and functions of interdependent units in the interest of the group as a whole. As we see it, as a company becomes an international player, the internationalization process gradually evolves into one of globalization. That is, globalization follows internationalization (Gabrielson, Gabrielson, Darling, & Luostarinen, 2006), although the demarcation line between the two processes cannot necessarily be pinpointed. To some extent, the two processes parallel one another, and can overlap.

Just as the “internationalization process” is a process of transition from national, to international, to multinational company, the “globalization process” may be the transition from a multinational company to a global one, optimizing globally regardless of what sort of strategy that implies. To cite Bartlett and Ghoshal (1991): “Thus, the forces driving companies to integrate their operations worldwide spread from industries where external structural change or discontinuity dictated a global strategy to industries in which managers had to create the opportunity for global economies” (p. 6). Globalization does then not necessarily imply further internationalization but rather a restructuring and redesign of existing ways of coordinating the, presumably large, number of organizational units. It is true that the concept of “globalization” has been frequently used on the macro-level. However, gradually it has been applied also on the micro-level by for example Porter (1986b). To us then a “global” company is taking a geocentric and integrated view of its business, while a multinational company may well have a polycentric view and not necessarily an integrated grip on its activities (Perlmutter, 1969). “Multinational” is then not a synonym to “global”.

In the early 1970s, the concept of the “establishment chain” was invented by a number of researchers in Uppsala to describe the empirical observations made concerning the successive use of modes: Ad hoc exports, agent, sales subsidiary and finally, in some cases, manufacturing subsidiary. Ohmae has created a similar typology for globalization (1985, p. 139):

1. A company with a primarily domestic orientation but also arm’s-length export activities moves into new markets overseas by linking up with local dealers and distributors.
2. It eventually takes over the activities from those local dealers and distributors.
3. It then begins to carry out its own manufacturing, marketing and sales in key foreign markets.
4. It moves to a full insider position in those markets supported by a complete business system including R&D and engineering.
5. It moves towards a genuinely global model of operation. New forms of organization, organic and amoeba-like, make the balance far easier to achieve. To make this organizational transition, companies must denationalize their operations and create a system of values shared by managers around the globe to replace the glue that a nation-based orientation once provided.
Though we do not subscribe fully to this typology, it does provide a pattern that is useful in understanding globalization. The first four steps in Ohmae’s typology match the establishment chain and are about internationalization. The fifth and final one pertains to re-configuration and the subsequent development of coordination tools and mechanisms. Such changes can be seen as steps towards “optimizing” the organization globally.

What is globalization for an internationalized firm? According to Porter (1986a) it is a matter of developing and implementing a global strategy. Such a strategy may have different characteristics (Porter, 1986a, 1986b, chap. 1) depending on the context. Various parts of the global value chain are suitably located given that context and strategy and, where possible, specialization and economies of scale are exploited. Different entities have different regional and group-wide responsibilities, and their activities are coordinated throughout the entire system so that all of the group-wide objectives are met. The firm needs to develop an organization capable of simultaneously making adjustments to satisfy local demands while being efficient and effective at the global level (Bartlett, 1986, p. 377; Yeniyurt, Cavusgil, & Hult, 2005). No small requirement. Hence, we expect that no firm will quickly reach the optimal configuration and degree of coordination. Rather, the globalizing firm will go through a cumbersome, incremental process of adjustment to pressures from outside to become more efficient. Adding to this, the fact that the environment is dynamic, makes the task of finding the optimal solution, utterly complex. We think the Uppsala model’s explanation of the internationalization process, given some adjustment, may also be applicable to the globalization process.

2.1. The Uppsala model

In 1977 we published a model that explains the characteristics of the internationalization process. The most important of the explanations we provided had to do with two interrelated sub-processes: experiential learning and commitment building. We later improved upon the original model by adding sub-processes, notably trust building, opportunity identification and exploitation (Johanson & Vahlne, 1977, 2009), and by placing the model in a network context as opposed to a neo-classical type market having many anonymous suppliers and customers. Without changing the basic characteristics of the model, we developed it here to better fit the globalization process, while keeping the state and change aspects of the variables (analogous to the economics concepts of stock and flow). These interact in the sense that the characteristics of the states have an impact on the changes and these in turn change the state. Hence, the model is dynamic (see Fig. 1). The updated internationalization model is described extensively in Johanson and Vahlne (2009). We proceed here with a somewhat abbreviated description of it, concentrating on the newer elements of configuration and coordination.

We will go further into the variables in due course, but first we elaborate on the business network context in which the model is nested (Johanson & Vahlne, 2009). The firm is embedded in a web of relationships with various other parties within its environment, including customers, suppliers, governmental authorities and so on. As time goes on and the number of mutual experiences grows, the parties adjust to one another and the degree of their interdependence increases. As a firm’s web of direct and indirect relationships is its source of information about changes in the environment and how it becomes aware of opportunities or possibilities for joint development, the focal firm cannot afford to disregard how any action it might take will affect the parties on the other side of the relationship, or even how they might impact parties with which it does not itself have a relationship but with which one of its partners does. In short, what happens, happens in relationships. Embeddedness is a two-edged sword, constraining and enabling. This kind of context is very different from that of neo-classical economics which sees firms as independently controlling their own destinies. Of course, the nature of the context affects the nature of the change processes as we will describe below.

We see the firm as an “inter-organizational network” (Forsgren, Holm, & Johanson 2005; Ghoshal & Bartlett, 1990). Power is far from being just a question of ownership. Other forces, such as control of critical resources, have an impact as well. In light of this it makes sense to view the globalizing multinational firm as a network of units engaged in exchange relationships with one another and also with parties outside the boundaries of the firm. Management in such a system is not at all the one-sided issuing of orders: “…headquarters’ control mechanisms have evolved from ubiquitous “company ways” to
multidimensional gestalts that are applied differently to different parts of the organization so as to respond to shifting global contexts” (Ghoshal and Bartlett, 1990, p. 620).

We expect that the degree of control that a firm’s HQ has over its own units is not very different from the amount of influence it has on outside entities. Hence managing the internal network is similar to managing the external environment, because both are networks hierarchical means of control have lost much of their power (Emerson, 1962), replaced by the creation of joint expectations, the development of joint knowledge, and a variety of ways of influencing rewarding both internal and external units.

We turn now to the modified model illustrated in Fig. 1 beginning with the state aspects. The “knowledge and opportunities” variable shown in the upper left quadrant remains unchanged from the 2009 version of the model. The focal firm’s knowledge of its own needs and capabilities, as well as those of the other network members, contributes to its ability to identify and implement changes. Generally speaking, this is how the firm goes about making progress. Network relationships are the means by which much of this happens. It was previously thought that identifying and implementing opportunities had to do with the external environment. Now we assume that this is true of the internal environment as well, implying that a firm’s HQ has access to knowledge about the “comparative and competitive advantages” of subsidiaries and their environments (Porter, 1986a, 1986b), even if it is incomplete (Denrell, Arvidsson, & Zander, 2004). It implies too that a firm’s HQ has relationships with the local organizational units it owns, and some knowledge, though it may be incomplete, about them and about the culture of their respective environments. That kind of knowledge is the basis for configuration and coordination decision-making.

The second state variable, shown in the lower left quadrant of Fig. 1, is “network position”. That too is unchanged from the 2009 version of the model. It refers to the strength and commitment of the relationships between the firm as a unit and outside parties. Network position is seen from HQ’s point of view and also applies to the firm’s subsidiaries. The network position of its subsidiaries in relation to each other and to external parties, i.e. how differentiated and advantageous those relationships are and how well subsidiaries comply with the intentions of HQ constitute the firm’s degree of globalization.

The first of the change variables, which we show in Fig. 1 in the upper right quadrant, is “decisions to reconfigure or redesign coordination systems”. This also includes changes in the pressure applied to coordinated units to assure their compliance with the wishes of HQ. The 2009 internationalization model differs from our globalization model in that the previous model has a “relationship commitment decisions” change variable where as in a global context decisions are centred on reconfiguration of the value chain and redesigning coordination mechanisms. In line with the statement from Buckley and Ghauri (2004) quoted above, we expect that managers, often in a path dependent manner, will further “fine tune” configuration and coordination systems when they see an opportunity to do so. A firm’s degree of globalization increases as a result of the implementation of such opportunities.

The second change variable, shown in the lower right quadrant of Fig. 1, is “learning, creating and trust building”. While this is the same as in the 2009 version of the model, here of course it includes the internal units of the focal multinational. All firm units, HQ included, learn, create and experience changed levels of trust with both external and internal units. Indeed, these change processes go on in numerous units as both parties in dyadic relations are active. It almost goes without saying that the amount of control that a firm’s HQ has over such changes is limited, but not necessarily insignificant.

As we said earlier, we do not believe that firms can come up with the “optimal solution” to issues of configuration and coordination rapidly. Firms must deal with an array of practical constraints, and inertia too. In industries prone to technological change management is for all intents and purposes aiming at a moving target (Gereffi, Humphrey, & Sturgeon, 2005). All of this is exacerbated by the simple fact that human beings simply can only deal with a certain number of things at a time. For all these reasons we expect that the globalization process, even more so than the internationalization process, is characterized by a series of incremental adjustments, with the most obvious and performance impacting changes handled early on in the process. Moreover, various units might see things differently, and so their solutions differ from those of HQ.

As we wrote earlier, according to Porter (1986a), globalization has to do with configuration, the design and redesign of the value chain, and coordination, adjusting interdependent roles and functions for the overall benefit of the group. We go into more detail below.

2.2. Configuration and coordination

The goal of reconfigurations is to have each value chain activity located where the conditions are best for the highest efficiency, given the needs of the whole organization (Porter, 1986a). In light of the trend to concentrate on core activities it is important that the external part of the supply chain is also taken into consideration, as a large and growing part of the end product of a global firm is sourced there. Hence, when we refer to configuration we include external suppliers (Stonehouse, Hamill, Campbell, & Purdie, 2000). Similarly, we include demand-side actors such as buyers and dealers.

What needs to be coordinated depends on the resulting configuration and the overall strategy, the roles and responsibilities assigned to various units. Flaherty (1986) discusses coordination objectives within manufacturing, such as support activities to “ensure the desired production is accomplished at the right time in the right place in the right way” (p. 87). In a similar vein Takeuchi and Porter (1986) discuss marketing coordination objectives. These include using branding and marketing to attain standardization so as to make scale economies possible, and providing marketing input in product development. These authors say nothing about tools that may be used to achieve coordination.
Coordination between two organizational units, then, is a matter of creating fit between those units so that they can achieve higher joint productivity. This means that first one or the units, possibly both of them, must make an effort to adapt to the other. When the two units belong to the same corporation the framework of such adaptations may be formulated at some higher level in the organization. If the units are part of two different corporations the framework may be formulated between the two organizations. An example of the second case might be a purchasing agreement between a central unit of the buyer and an external supplier. Thus, in this case we have a situation with a central unit agreeing with an external supplier while the match should be realized between a manufacturing unit and the external supplier. In any case, such agreements are but frameworks with much of the detail left to the exchanging units. The adaptations may concern the products supplied, or the design and organization of the production processes. They may also be a question of how deliveries are made. Or which technical services have to be handled and how. All these areas may involve a great number of adaptation problems (Hallén, Johanson, & Seyed Mohamed, 1991). In principle, there are no limits to the number of adaptations that can be required to create joint productivity.

Coordination requires communication, and for that communication to be effective a network of contacts between units has to be developed. It may be comprised of managers, at both higher and lower levels, and with various kinds of functional expertise. It can be simple, for instance specific individuals responsible for maintaining contacts with their counterparts in other units, but behind those individuals there might be a more complex internal network that includes persons who have the competence and the authority to handle problems as they arise. Indeed there may be a constant stream of issues to be resolved. Of course, even the best agreements hammered out within the best of relationships are no guarantee that there will not be unexpected problems many of which requiring rapid solutions. It is in such circumstances that it is most important that the individuals involved know who among their counterparts is in a position to help find a solution, who has the authority, and who the competence.

Thus, our conclusion is that the purpose of coordination is the smooth handling of adaptations that result in joint productivity. These adaptations, in turn, are carried out through contacts and communications between the organizational units. From what we have observed, there is little difference between a firm’s internal and external units in this respect. Unlike what one might expect negotiations between internal units may be tougher than those with outside units as there are sometimes bitter disagreements between internal units. We believe that this may be due to HQ attempting to force internal units to strike deals, while when it comes to external units there is more or less an impression that there is simply nothing that HQ can do. Vertical integration implies that an internal supplier has a captive market, and the result may be a disinclination to improve efficiency. Globalization means that internal customers have more supplier choice. We share the view of Gereffi et al. (2005) that ownership may not imply much of a difference for the choice of coordination mechanisms. As Tsai, Huang, and Ma (2009) have shown, global responsiveness, which tends to mean the building of social capital with suppliers, may result in successful global sourcing and a positive impact on performance.

A useful typology of coordination mechanisms, not necessarily related to globalization, has been presented by Martinez and Jarillo (1989).

Martinez and Jarillo found that “softer” mechanisms are becoming more common over time, perhaps as the complexity of coordinative tasks increases. O’Donnell (2000) found that a system of highly interdependent units with a strong need for cooperative behaviour makes monitoring and incentive compensation less effective (p. 531). Cooperative behaviour is easier to obtain through social controls (Ouchi, 1979) which result in shared values and beliefs that are consistent with the objectives of the entire group of companies (Nohria & Ghoshal, 1994). O’Donnell (2000) suggests that there are three mechanisms that the HQ of a firm might use to strengthen group identification and value sharing, namely: “vertical integrating mechanisms, lateral integrating mechanisms, and non-monetary incentives” (p. 532). Those mechanisms are in essence about human interaction in executive programs, the mentoring of cross-unit teams, and task forces. According to O’Donnell (2000), financial rewards should be consistent with overall group objectives, and non-financial incentives, such as career advancement and desirable expatriate assignments, also should not be overlooked (p. 533).

It is typically assumed that all of the coordination between units is done by a firm’s HQ, but it can be that HQ delegates coordination for a specific product to a particular unit, perhaps to the most important subsidiary (Roth, Schweiger, & Morrison, 1992). In such cases managers will be entrusted with striking the “optimal” balance between global integration and local responsiveness as long as the value set that they adopt is consistent with group interests (Murtha, Lenway, & Bagozzi, 1998).

As we have said regarding internationalization, the globalization process is unlikely to be characterized by instantaneous reactions and quick adjustments that yield optimal solutions rapidly. If anything, we believe that the globalization process is still more cumbersome than is internationalization, and if anything is more complex and uncertain in nature, and the optimal organizational configurations even more unclear. Managers have to slowly work through the change process relying on their own experience along the way, and will often find it extremely difficult to design and implement their global strategy. Moreover, it is difficult to coordinate across large geographical and psychic distances. Some of the contributors to competition in global industries write that the process will not be free of problems. Bartlett refers in that volume to the “administrative heritage” (Murtha et al., 1998, p. 372) as a contextual aspect impeding the globalization process. In another of the contributions, Bartlett, Ghoshal, and Birkinshaw (2004, pp. 351–355) discuss some approaches that a multinational firm can apply to manage the transition process into transnationality, or in our terminology, into becoming a global company. One approach is that first the formal structure must be changed, then processes, and finally the attitudes of individuals. As Bartlett et al. write, this is the order which American firms would typically follow, while Japanese and
European firms normally do the reverse, that is they usually start by attempting to change the attitudes of key persons, and then move onto changes in processes, and finally change the formal structure. In reality the process is much more complex than described above and varies between firms (Bartlett et al., 2004, p. 352). There are pros and cons to both a slow process and a quicker one, but: “Fortunately, most change processes can be managed in a more evolutionary manner, focusing first on modification of individual perspectives and interpersonal relationships before tackling the formal redistribution of responsibilities and power” (Bartlett et al., 2004, p. 353).

The modern multinational corporation is a differentiated network implying that power no longer rests with HQ only but is also held by resource rich subsidiaries (Emerson, 1962) and to those that have relationships with important suppliers and customers (Forsgren et al., 2005). Traditional monitoring and control mechanisms have consequently lost some of their efficiency. Other means will have to be used, such as the more subtle coordination mechanisms referred to above which “...helps to overcome the exchange difficulties in the multinational by inspiring a sense of commitment, trust, and social harmony among subsidiary top managers” (Kim & Mauborgne, 1993; cf. Gupta & Becerra, 2003, on the role of trust). Galbraith (2000) stresses the usefulness of interpersonal networks as an important coordination mechanism. Bartlett and Ghoshal (2003) advocate a new organizational form which they call the transnational or global corporation. In such firms all units are linked both vertically and laterally, and front line managers are empowered to act in the interest of the group as a whole.

As Howard Perlmutter wrote in his classic article, The Tortuous Evolution of the Multinational Corporation (1969): “There appears to be evidence of a need for evolutionary movement from ethnocentrism to geocentrism. The polycentric stage is likened to an adolescent protest period during which subsidiary managers gain their confidence as equals by fighting headquarters and proving ‘their manhood’, after a long period of being under the headquarters’ thumb. ‘It is hard to move from a period of headquarters domination to a worldwide management team quickly. A period of letting affiliates make mistakes may be necessary,’ said one executive.” (p. 17). So, we have every reason to expect a tortuous evolution.

2.3. Volvo’s heavy truck business

We look now at Volvo’s heavy truck business and use that to inductively try to model the globalization process. We collected information on Volvo’s internationalization and globalization primarily from secondary sources, supplementing what we learned from them with interviews with above all, former vice president of the Volvo Group, Lennart Jeansson, during spring 2007. The secondary sources helped us describe the globalization process, mainly the reconfiguration, and the interviews helped describe the redesign of the coordination systems and uncover the underlying processes depicted in our globalization model.

The Volvo Group is one of the world’s leading producers of commercial transportation solutions. It first made passenger cars in 1928 in Gothenburg, Sweden, moving into truck manufacturing 2 years later. Volvo has grown over the years both organically and through acquisitions, and now has nine business areas. Its total sales in 2008 were roughly SEK 300 billion (43 billion US dollars). Over half of annual sales are in Europe, followed by close to 19 percent in Asia, 16 percent in North America, 7 percent in South America, and 7 percent in all other locations worldwide together. Sixty percent of Volvo employees are located in Europe, 19 percent in Asia, 14 percent in North America, 4 percent in South America, and the remaining 3 percent in Africa and Australia combined.

The formal name of the group is AB Volvo, sometimes named the Volvo Group, for short, simply Volvo. The Volvo Car Corporation, the passenger car arm of the group, was sold to the Ford Motor Company in 1999, and the Volvo brand has since been jointly owned by Ford and Volvo. The truck arm of the group, Volvo Truck, grew with the acquisition of Renault Trucks and its subsidiary Mack Trucks in 2001 (we refer to them simply as Renault and Mack in the remainder of the paper) and grew again with the acquisition of Nissan Diesel in 2007. Volvo itself does not have a name for its total truck business. We refer to the aggregate of the four truck manufacturers as Volvo’s heavy truck business.

The objective of the following empirical part of the paper is to capture the closely interrelated, process development of configuration and coordination in the globalization process. As a result description and analysis cannot be clearly separated. In the section below, we give a few details about the development of Volvo Truck, the original truck business of Volvo, focusing on internationalization, reconfiguration and changes in the coordination system up until the acquisitions of Renault and Mack. In the following sections we outline the development of Volvo’s heavy truck business beginning in 2001. This is followed, first by a section on reconfiguration as we understand it from secondary sources, and subsequently by a section in which we show the development of coordination. We focus on how coordination systems are redesigned as a consequence of reconfigurations using the information we glean in interviews with Volvo executives paying particular attention to the roles of the two organizational units, Volvo 3P and Volvo Powertrain. We then look at the impact of each of these units on configuration, and especially supply chain development and management. We then devote a section to the use of informal coordination mechanisms in the globalization process. After the case presentation we discuss change processes during globalization.

2.4. Volvo’s truck business before 2001

As we noted above, Volvo’s truck production began in the late 1920s. It was not until considerably later that the separate truck unit was created in 1969. In fact, until the early 1960s over half of all units of Volvo Truck were sold in Sweden.
Internationalization started early and continued in the well known pattern typical of Swedish companies, first using low commitment modes to enter countries close to Sweden in terms of psychic distance. Trucks and CKD-units (completely knocked down) were exported from Gothenburg, the latter to markets protected by trade barriers. Often importers in larger markets were acquired as a means of establishing Volvo sales subsidiaries. In the 1950s the Belgian importer started doing assembly and some production within the EEC, of which Sweden was not yet a member. In the early 1980s assembly in Brazil started, and the White Motor Corporation in the US was acquired. Mostly it was structural and formal coordination mechanisms like those set out in Martinez and Jarillo’s (1989) typology (see Table 1) that were first applied, with written policies and the drafting of performance coming only later. Decreasing barriers between national markets made it necessary to coordinate prices and discount offers. As plants in other parts of the world were established it became increasingly important to pay close attention to the differing needs of those markets and Program Committees were formed to oversee product development and other areas. It is interesting, however, that in the early phases of establishing its own organizations in foreign markets Volvo used the most subtle methods of control. The individuals who were selected to manage foreign Volvo units had been “brought up” at HQ, engrained with corporate values and strategies before being sent out to manage subsidiaries, and consequently, HQ was confident that there was little need to control and monitor subsidiaries. Sven G. Andrén, a manager at Volvo and previously at other Swedish multinationals, said at a seminar in Gothenburg that he never experienced a company with so little reporting.

Obviously, there was some store of experience from managing such widely dispersed commercial activities on which the firm could call when making its quantum step forward at the end of 2000.

2.5. Volvo’s truck business beginning in 2001

2.5.1. The acquisitions of Renault and Mack, and of Nissan Diesel

The single largest expansion step in Volvo’s foreign truck production capacity was in December 2000. In a stock swap deal Volvo acquired Renault Véhicules Industriels of France, one of Europe’s largest truck manufacturers, and Renault S.A. became the biggest shareholder of AB Volvo. The Renault acquisition included both its heavy truck business and its medium and light vehicle business which accounted for roughly 40 percent of Renault’s production. The deal included four truck-assembly plants in Europe. Renault also agreed to deliver engines, axles, truck cabs, crankshafts and mechanical components. At the same time Volvo got one of North America’s leading and largest heavy truck producers Mack Trucks Inc. Renault subsidiary since 1990. Like Volvo Truck, Renault had a number of smaller CKD-assembly operations in smaller markets worldwide, mostly operated by local partners.

Through the acquisition, Volvo strengthened its production position in the US. Mack ran two large assembly plants there. In addition, in a unique feature in the North American truck industry, most of Mack’s trucks used drivelines manufactured in-house. Engines, transmissions and gearboxes were designed and manufactured in Hagerstown, Maryland. According to US tradition, customers designed their own driveline, using the engine, gear-box, etc. of different manufacturers. Up until it was acquired, Mack also operated a foreign production site in Latin America and an assembly plant in Australia.

Volvo took another important step to expand its truck operations in 2007 when it acquired Nissan Diesel, with its head office, truck assembly and engine production in Japan turning out roughly 30,000 medium-heavy and heavy trucks annually. Asia became Volvo’s second largest truck market through Nissan Diesel’s strong market positions in Japan and in many other countries in the region, including China. Volvo’s earlier attempts to establish joint ventures for local production of trucks in China had been unsuccessful, but after acquiring Nissan Diesel it was able to hammer out a joint venture with Chinas largest heavy-truck manufacturer Dong Feng Motor Corp. The president of each of the four truck manufacturers reports directly to the Volvo CEO.

Through its acquisitions, Volvo has established a global production capacity with major operations covering every significant regional market worldwide. Its global coordination system has also continued to develop. Nissan Diesel is now integrated into Volvo’s development, manufacturing, purchasing and driveline operations coordination through the two business units overseeing those tasks, Volvo 3P and Volvo Powertrain. In the short-to-medium term, the estimated synergies are expected to generate cost reductions of nearly SEK 2 billion (2.7 million US dollars) annually, mainly through lower
purchasing cost as a result of increased volumes and the use of common suppliers, but also through increased scale economies in product development and production, especially of engines and drivelines. Additional benefits are expected from the integration of the dealer and service networks of the acquired units, primarily in Asia, but also in other parts of the world. Nissan Diesel has also contributed medium-heavy truck technological expertise, especially with their engines which have been adopted by Volvo Powertrain as the platform for a new internally developed and produced medium-duty engine.

Western Europe continues to be Volvo’s largest regional market, with 96,000 vehicles sold in 2008 representing 38 percent of all Volvo truck sales. The North American market has steadily held the number two spot with other regional markets accounting for just 5–10 percent of total sales in 2000. Since then sales have increased in most regions and in 2008 Asia breezed into second place with 24 percent of total truck sales, doubling North America’s 12 percent. Eastern Europe now accounts for 10 percent of Volvo’s truck, and the South American market contributed 7 percent of total sales with volumes there reaching record levels at some 18,000 vehicles sold in 2008.

Volvo Truck is comparatively strong in the US, the Middle East (Iran) and South America (Brazil), Renault is strongest in southern Europe (France, Spain, Italy), Mack sales are concentrated to North America, especially the US, while Nissan Diesel has a strong market position in Asia, especially in Japan and less strong in China. Bearing in mind the different weight classes, in 2008 Volvo Truck was responsible for more than 40 percent of the Group’s truck production, and Renault, Nissan, and Mack for roughly 30, 20, and 6 percent, respectively.

### 2.6. Reconfiguration

Volvo’s global production has been rationalized, especially since the acquisition of Renault and Mack, yet only 13 of the 53 production sites have been closed down, and many of those were operated by independent partners. Among its own units, in Europe, Volvo Truck closed two truck assembly plants, the first in 2000 in Scotland, the second in 2001 when it shut down a recently established truck assembly plant in Poland. The production volumes from both sites were transferred to Volvo Truck’s larger truck assembly plants in Gothenburg and Ghent.

Acquisitions, of course, provide more potential for reconfiguration. Duplicate assembly operations in Australia have been combined into one facility. In the US, Volvo closed Mack’s assembly plant in Winnsboro, South Carolina in 2002 concentrating the production of all Volvo and Mack highway trucks in the New River Valley plant in Virginia. In 2006, Renault reduced its major truck assembly plants in Europe from three to two, moving truck production from Spain to France where heavy trucks assembly is now done.

Engine production has also been rationalized. In 2003, Volvo expanded and modernized its original engine plant in Skövde, Sweden. The plant, which is now one of the most advanced engine plants in the world for diesel engines, includes a foundry, machining and assembly operations. Mack’s engine plant in the US, and Renault’s engine plant in France have both been streamlined to focus on engine assembly, with the motor block and other key parts imported from Skövde. Nissan’s engine plant in Ageo, outside of Tokyo, has been rebuilt and expanded, and engines are now built there on a common Volvo Powertrain platform.

In 2004–2006, large investments were made to expand and upgrade the paint shops and assembly operations in the cab plant in Umeå, Sweden, which supplies Volvo’s major truck assembly plants in Gothenburg and Ghent in Belgium and nearly all of the Volvo CKD-plants worldwide. Similar investments were made in the cab plant in Blainville, France which supplies all of Renault’s truck assembly plants worldwide.

More recently, in 2009 truck operations in North America were restructured. Mack’s head office was relocated from Allentown, Pennsylvania to the Volvo Trucks North American head office in Greensboro, North Carolina. At the same time all Mack production was concentrated into its main plant in Macungie, Pennsylvania, including what was earlier relocated to the Volvo Trucks New River Valley plant in Dublin, Virginia in 2002.

### 2.7. Redesign of coordination system

It is safe to say that with the exception of the sale of Volvo Cars to the Ford Motor Company in 1999, the acquisitions of Renault and Mack were the most dramatic changes ever experienced by the Volvo Group. Those moves called for structural changes. Volvo Global Truck, a new organizational level between corporate management and the now three truck makers was created rapidly to take advantage of the synergistic effects of the acquisitions. As the former Vice President of Volvo, Lennart Jeansson: “We thought we had a good balance but many of the decisions relevant to Volvo Global Truck would have had to be brought before corporate decision-makers anyway, thus causing unnecessary extra work.” The new entity was able to sidestep the potential difficulties that might arise were Renault and Mack to be seen as simply units within Volvo Truck. It was easier for the newly acquired divisions and Volvo Truck to all be units within the Volvo Group. In the following we call those units brand owners.

An integrated aspect of Volvo Global Truck organization was a shared distribution network in Europe. That was a mistake, according to Jeansson. There was little to be gained by forcing the brand owners into an arrangement they did not like, better to exploit the strengths of Renault in Mediterranean markets and Volvo in Nordic ones. Relatively soon the Global Truck level was scrapped, and a different organizational structure created. Each of the three companies would be responsible for developing its own sales. Responsibility for product planning, product development and purchasing (apart from the driveline) would be centred in Volvo 3P, and responsibility for the supply of engines, transmission and axles would lie with...
Volvo Powertrain. Other group companies would take care of supplying the aftermarket, developing new technology, handling logistics, providing financial and business services, and information and communications technology (see Table 2).

### 2.7.1. Volvo 3P

The 3P unit supplies the brand owners with customized solutions that make optimum use of their sizes, volumes and resources, but at the same time allows them each to preserve the unique characteristics of their own brand. In essence 3P performs a balancing act, finding synergies in the functions of the different truck companies, while at the same time maintaining separate brands (Linder & Martinez Majander, 2003, p. 4). The 3P unit is gradually working towards coordinating the production and purchasing activities of the brand owner companies. The process will inevitably call for a number of diplomatic compromises, one in the near future having to do with reducing parallel work to increase efficiency and ultimately having one global purchasing and product planning unit.

In 2009, the 3P business unit had offices in nine countries and roughly 5000 employees. The unit’s head office is in Gothenburg, its three global development centres in Gothenburg, Lyon and Bangalore. Other key 3P-sites are strategically located in the US at Mack’s main assembly plant and Volvo Truck’s North American head office, and in Japan at Nissan Diesel’s main plant. There are also 3P units at Volvo Truck’s plants in Curitiba, Brazil, and Bangalore, India; at the joint Volvo Truck-Mack assembly plant near Brisbane, Australia; and in Shanghai, China. The 3P and Powertrain units have jointly drawn up plans for shared vehicle architecture and written guidelines for a number of product families that provide the basis for future truck models.

The 3P unit is responsible for ensuring that the correct products are ready for launch anywhere between one and a few years out. It is also responsible for long-term product planning, coordinating the technology and components between the four truck brands by implementing rolling 8-year plans for products and 10-year plans for technology development. The unit focuses on mitigating raw material cost increases, balancing the effect of currency fluctuations, and managing a tight supply of parts and components.

### 2.7.2. Volvo Powertrain

The engine divisions of Renault and Mack were integrated after acquisition into Volvo Powertrain, a new business unit handling the development and production of diesel engines and other driveline components for the entire Volvo Group. The Powertrain unit coordinates the efforts of the four truck brands to develop and produce diesel engines, gearboxes, rear axles, drive shafts and other driveline components which are the key technologies at the heart of the Volvo Group. With some 9000 employees, Powertrain is the world’s number one manufacturer of diesel engines in the 9–16-l range with an annual production volume of roughly 200,000 engines, which are either developed and manufactured by Volvo Powertrain itself, or purchased through a strategic partnership with Deutz AG, Germany, which develops and manufactures Volvo’s medium-heavy engines. The heavy duty engines from Nissan Diesel are now also built on a common Volvo Powertrain platform, and Nissan Diesel is responsible for developing a new medium-duty engine to be produced within Volvo Powertrain.

The most significant step in integrating Powertrain operations was the decision in 2001 to reduce the number of Volvo, Renault and Mack’s existing engine families from 18 to a combined two. The new platforms, based on a common architecture and shared technology, generate substantial economies of scale while at the same time making possible the production of a larger variety of engines adapted to vehicle size and transport capacity requirements.

The unit concentrates on research and development and production through specialized units that are located at the engine plants of Volvo in Skövde, Sweden and Curitiba, Brazil; at Renault’s engine plant near Lyon, France; at Mack’s engine plant in Hagerstown, Maryland in the US; and at Nissan Diesel’s engine plant in Ageo, Japan. Powertrain’s success hinges on a clear division of labour but at the same time extensive cooperation between the different truck units with an eye to developing joint platforms.

### 2.7.3. The impacts of 3P and Powertrain

The 3P and Powertrain units are constantly in communication with the four truck manufacturing divisions and have introduced new joint engine platforms. Synergies have been realized by having roughly 60–70 percent of the value of the
trucks shared across models. This has limits. As Dzeki Mackinovski, Vice President of 3P and in that capacity heavily concerned with finding and developing suppliers, put it, “What can be looked at, touched or smelt should differ between the four brands. Some customers are very sensitive” (Dzeki Mackinovski). Nonetheless, as the brand owners try to save on costs, 3P has gradually taken on more responsibility. Today 3P designs the cabins, but as the engineers working at each of the truck units are integrated into 3P’s computer network, adjustments can be readily made to fit the particular needs of each of the manufacturing units.

Finally, while acquisition-driven growth has created new opportunities and broadened Volvo’s overall competence base, it has also increased the need to evaluate and coordinate different production systems. The Volvo Production System (VPS) was initiated in 2004. One of the strategic objectives for 2007–2009 was for VPS to drive and follow up on Volvo Group’s progress. The goal of the system is to improve quality standards, reduce production costs, and introduce and disseminate Volvo Group-wide principles and values. For example, Volvo Truck in Curitiba, Brazil, is a Group role model, and Nissan Diesel is a leader in efficient production systems with high quality.

2.7.4. Supply-chain management

The number of shared components and interchangeable modules is being increased group-wide through an increasing number of development projects initiated by 3P, often in cooperation with selected suppliers. Such coordination between the brands was first implemented in product areas with a comparatively high level of global standardization and where large international suppliers dominate, e.g. tyres/batteries and electronics, and thereafter expanded into more brand-specific areas where the timing of standardization corresponded to the introduction of new generations of components and platforms that replaced older out-dated technologies, or when the truck industry as a whole was forced to adapt to some new legislative requirement, e.g. new emission standards for engines set by the European Union and the US. It took several years after the acquisitions of Renault and Mack to introduce new common parts and platforms in key areas as Volvo’s strategy has been to wait until the life-cycle of existing technologies has expired before moving on to new shared ones. An exception has been in the case of truck cabs where synergy potentials from standardization are relatively more difficult to achieve because of more gradual technological changes and less modularization in general.

The “Premium Generation Project” is a clear illustration of Volvo’s global integration of supplier networks. It resulted in a common platform for new truck models beginning in 2004. The result has been an improved Volvo FH and all new Renault Premium and Mack Granite models, using a number of common, large, global suppliers, especially those delivering component modules (e.g. steering, brake and pneumatic systems).

It is in the purchasing area where the gains of coordination have been most significant to date. Volvo 3P and Volvo Powertrain make purchases of nearly SEK 70 billion annually and the Volvo Group invests about SEK 8 billion (1.1 billion US dollars) in research and development. According to Volvo Group estimates some SEK 3.8 billion (5,500,000 US dollars) were saved in the first 2 years following the acquisitions of Renault and Mack. The Volvo Group believes that 3P and Powertrain together will continue to deliver cost savings as new truck models with more components and systems developed and purchased jointly are introduced. Already coordinated purchasing has meant that the number of suppliers has been reduced over the past few years from some 2500 to roughly 1500, with the remaining suppliers offering better purchasing conditions based on larger volumes and systems responsibility. Such favourable results are likely to continue as Nissan Diesel has now joined the other units in joint purchasing from first-tier, global suppliers with a capacity to deliver to all Volvo Group members, and all of the production sites have introduced new common systems in areas such as IT-communication, logistics and documentation.

Powertrain’s engine and transmission components purchasing has also been consolidated. Just a few years ago Powertrain had some 700 suppliers. By 2006 there were fewer than 90. The suppliers with which Powertrain now does business have been selected based on their capacity to participate more actively in the development process.

According to 3P’s Mackinovski, Volvo had a more global outlook and experience with suppliers than Renault and Mack, and even more so than Nissan Diesel, which was procuring exclusively from Japanese suppliers. On the other hand, as Volvo Truck had been enjoying better times than Renault, the latter was better at getting lower prices from suppliers. “We at Volvo Truck were better at building relationships for the long term with our suppliers” said Mackinovski. Far from being disadvantageous, the differences between the units offered scope for overall improvement in procurement.

Mackinovski also stressed that the best of the suppliers were rewarded with chances to increase their sales to Volvo in new production. Volvo carefully screened interested suppliers applying especially tough requirements with an eye to eventually moving in the long term to single sourcing. Volvo 3P recruits and motivates suppliers by “marketing dreams implying opportunities” to suppliers who will help develop its business within “an open and long-term” relationship. He also said that “there is no difference between working with internal or external suppliers: We have learned over the years that the mechanisms are the same. They work as long as there is some security. It is all about skills in dealing with human beings.”

2.8. Informal and subtle coordination mechanisms

Our subtitle refers to the last three points of the Martinez and Jarillo typology (Table 1). After the acquisition of Renault and Mack, Volvo wanted the new units to install the entire Volvo “planning package”. There was then a philosophy in Sweden that budgeting in the traditional fashion did not make sense, the figures in the budget tended to bind the thinking, making the organization less flexible. Instead, the idea was to compare the current period with the previous one. Volvo
subscribed to this philosophy and did not take planning as seriously as before. At the same time, as Renault had only recently installed a new accounting system of its own when it was acquired, Volvo HQ was anxious not to insist on implementation of the Volvo system right away. As Jeansson put it, “We learned not to rush things.” Overall, Renault and Mack had no problem accepting Volvo performance variables. In fact, their cultures were similar. All the same, it was difficult to get them to correct behaviour as a consequence of less than satisfactory performance indicators. At some point, Volvo realized that synergies in marketing could mean real cost savings. But, as Jeansson stressed, “There was, however, so much noise in the organization that we scrapped the idea.”

In the US, dealers sell both Mack and Volvo trucks, albeit in different locations. On the other hand, the trucks are repaired and serviced in common facilities. In Germany some dealers too wanted to handle both brands. Volvo went along with their doing that. There was so much hesitation in Renault and Volvo Truck. “It is a matter of maturity, a matter of balancing conflicting demands. The process takes time, but eventually the parties are able to agree on the best solution for the common good” (Lennart Jeansson). Today the Volvo Group owns 60 percent of the Renault and Mack dealers in Western Europe and all of them in Eastern Europe. In new markets Volvo Truck offers a heavy truck and Renault a lighter one.

A Volvo Group Code of Conduct in which the corporate values of product quality, worker safety and care of the environment are stressed was set in 2003. The code also covers the guiding principles behind Volvo’s relationships with its different stakeholders (Annual Report, AB Volvo, 2006). In addition to such general statements about corporate values, there are specific policies to which the units are expected to adhere. For instance, working conditions are monitored using an annual Volvo Attitude Survey. The survey revealed, for example, that 30 percent of Volvo’s managers worldwide did not perform required “development dialogues” with their subordinates. “One does find some poor leadership. We offer educational programs, and we have got to be patient” confided Jeansson.

Learning is not a one-way street. This is one reason for Volvo’s management programs that bring together employees of all of the units. As Jeansson said, “Our bench-marking projects have shown that the daughters may well have something for all of us.” He goes on to say that “The US and French cultures are more authoritarian than ours. That will hopefully gradually change. We, on the other hand are vague. Here we can learn from them.” and that “We believe the Group will benefit from the cultural diversity, as long as we are all Volvoites. All business is local.”

The “Volvoite” culture spans all of the business areas. For example, procurement for large construction projects in the US includes all types of machinery. Consequently, trucks cannot be seen in total isolation. Construction equipment too is an important Volvo business area. Group-wide meetings with up to 200 top managers are held. There is also a bonus system that rewards both individuals and their groups, and managers throughout the system are encouraged to own Volvo shares.

An effort is made to internationalize management, with managers hired from France, the US, and Japan as well as from Sweden. The 3P and Powertrain units are real managerial melting pots. An ability to speak Swedish is not required in order to hold a top management position, in fact, the corporate language is “poor English”. The locale of important meetings is rotated between different corporate sites.

Today, the dialogue is an important mechanism in between top management of the corporation and the three truck companies. It may happen for example in personal meetings in connection to top management’s frequent travelling. That is when sensitive issues are dealt with. “Most often we get it our way. If not, they have to bear the consequences themselves. Money speaks our language” (Lennart Jeansson).

Directives may well be given. For example, HQ thought that Renault was selling trucks at too low a price and so a price increase was ordered. But in general, the performance criteria do the job for Volvo Group management. The more difficult-to-resolve challenges are when jobs are at stake. Such thorny issues tend to make Volvo management defensive. Thus, not procuring from 3P requires a decision at the highest level of the hierarchy. It has happened that group management has found the rationale for some projects proposed by some of the daughters to be too optimistic. In situations like that they have stepped in to cancel the project.

According to the firm’s own estimates the efforts to coordinate all the units have saved Volvo as much as 4 billion SEK (5,500,000 US dollars). But it took time – around 5 years – to realize the value of the synergies. Now that Nissan uses “Volvo” components still more savings can be expected.

Jeansson summarizes his perception of Volvo Group’s coordination and control of the truck companies in saying, “Objectives, vision, policies and cash flow, yes, but then all companies have to be managed according to their culture. We try to push the Volvo way in a clever and receptive way. Open dialogues is the main mechanism and in a crisis a task force is formed.” In the beginning, directly after the inclusion of Renault and Mack into Volvo, it was important to go slowly, to make it clear that the new units would be invited to participate equally. More dramatic changes could wait until a new generation of products was developed. Gradually, trust and commitment were built. One hundred percent ownership does, though, make it clear, if necessary, who decides” “We avoid using force. But those not optimising for the Volvo Group would have to take responsibility for those millions lost.” “Performance is critical by giving reason for growing self confidence; success breeds success” (Lennart Jeansson).

2.9. Concluding discussion and analysis of changes following important acquisitions

2.9.1. The integration process

A previous attempt to merge AB Volvo and Renault Véhicules Industriels in the 1990s has been singularly unsuccessful. In the end AB Volvo’s CEO of 20 years Pehr Gyllenhammar resigned and a subsequent vote resulted in one on board member
being re-elected. Even though the attempt to merge then was not successful, good contacts were formed between top managers of the two companies and ongoing cooperation established between Renault and Volvo truck units. Finally, there was a realization within both Renault and Mack that the R&D needed to keep up was such that they would not be able “to go it alone.” To summarize, the context was right for Volvo to acquire Renault and Mack. Implementing the measures needed to make the merger successful was eased by the fact that the truck business “took a dive” during 2002, and it became obvious that tough measures were needed. “It took us some time to clarify some misunderstandings. But making Renault contemplate the question: ‘What is the alternative?’ paved the way for a successful cooperation” (Lennart Jeansson).

It takes time to forge successful relationships. As Jeansson puts it in the case of Volvo, it was “the result of a process of joint trust and commitment building.” He went on to describe the immediate gains of the process of finding out which of the three makers had the best suppliers of tyres and batteries and other components. Whatever the item purchased, a dramatic increase in the quantities that would be ordered of course had an impact on the unit price. After a while “the new daughters” saw the synergy they could realize by pooling with 3P. Nonetheless, as we have said, change takes time and there is still a bit to go on the cabins. “A dream is that cabins are the same in Europe and the US” (Lennart Jeansson).

“Nowadays they [Renault and Mack] see the acquisition and integration as a success and are perhaps more cooperative than Volvo Truck” (Lennart Jeansson). Sometimes, according to Jeansson, the subsidiaries are too sensitive to customer wishes. As Jeansson says from the Volvo Trucks point of view, “We cannot allow Cummins engines to be installed in our product, not least for the after-market business” (Lennart Jeansson). He goes on to say that as time goes by, truck owners, being rational, worry less about brand-specific details and more about price and performance. In fact, Jeansson reports that customers are doing a lot of benchmarking. As the logistics systems are optimized, transports must not be disrupted. Large values might be lost. These trends increase the scope for commonalities. It also makes the business more “captive”, that is, customers do not decide what engine, etc. to put into the truck. The manufacturer has optimized the truck as a whole and it does not benefit the buyer to try to do better on his own. In turn this trend does facilitate globalization.

2.9.2. Reconfiguration

There was some reconfiguration before Renault and Mack were taken on, with Volvo Truck closing some units. Interestingly, the Curitiba, Brazil operations had been upgraded with some engines from there being delivered to European assembly plants. So Volvo was not completely unfamiliar with globalization at the time of the acquisitions of Renault and Mack.

The big step has been followed by a number of smaller reconfiguration steps. Some assembly plants have been closed due to overcapacity. There has been some specialization with plants that produced engines previously now concentrating on assembly or the production of engine components. Closing a plant is, according to Jeansson, the most difficult decision that HQ has to make. He goes on to explain that there is a natural tendency to defend “one’s own units and people”.

According to Lennart Karlson, a Volvo Truck Industrial Director, International Manufacturing, “at this stage we think that our reconfiguration has been somewhat slow, perhaps awaiting a down-turn of the business, which seems to make troublesome decisions that involve cutbacks or reduction of the number of employees easier. It has been easier to rationalize procurements for components such as tyres and batteries thanks to larger volumes it has been possible for us to negotiate lower prices on such items. As a result, reconfiguration has mainly happened at the supplier level, that is outside of our own organization” (Lennart Karlson, 2007).

2.9.3. Coordination

Volvo quickly followed the acquisitions of Renault and Mack with changes in structure: the Volvo Global Truck level was installed to manage the three truck operations. A combination of sensitivity to the unhappiness of the French over what they perceived as a takeover by Volvo Truck, and early experiences following the incorporation of Renault and Mack made the Volvo Group change the structure after some time into the one that prevails today (see Table 2). Originally there were three equal truck manufacturers under Volvo Group. Now the current 3P and Powertrain units are comprised of the relevant parts of the former Volvo, Renault, Mack and Nissan Diesel units. Perhaps we can use the concept of management from below.

We see the loss of Volvo’s control as support for the Martinez and Jarillo (1989) hypothesis that growing complexity and experience make firms gradually use “more informal and subtle mechanisms.” The Volvo organizational culture, what is described in Volvo literature as “The Volvo Way” that calls on managers from the different truck manufacturers and other business units to meet frequently and participate in management development programs, to form problem-solving committees, and to make bench-marking efforts to spread best practice, has become the dominant coordination mechanism. We see this as evidence of learning. As managers internalize the culture and group-wide norms are adopted, coordination is in fact decentralized. Interestingly in the case of Volvo, it is made clear that being Swedish, even speaking the Swedish language, offers no particular advantage when it comes to career advancement, thus there is no reason to believe that one group or the other is, as the saying goes, “more equal”. Such things as performance-based bonus systems strengthen identity with the group. Yet there is still in everyone’s minds the understanding that non-compliance with norms can have real financial consequences.

Top management has at the same time learned not to “rush things”. HQ seems to be biding its time in making more dramatic changes until new generations of trucks can be developed. When it was first taken onboard Renault had recently installed a new planning system. Volvo did not force a change immediately despite the realization that certain standardization potentials in marketing might have saved millions. When they were met with resistance, Volvo Group plans were scrapped in favour of basic mechanisms that seemed to allow for a building of trust and commitment.
2.9.4. Globalization

As we see it, within the Volvo Group relatively little has been achieved so far in terms of reconfiguration. While it is true that there has been some restructuring in assembly and engine manufacturing, this was mostly to eliminate surplus capacity. There has also been some specialization of units in an effort to make the pattern of global production more efficient, but by far the quickest and most significant reconfiguration so far has occurred at the supplier level.

What has indeed happened so far in terms of reconfiguration, has come as a result of the redesign of the coordination system. As 3P restructured the supplier system, so has Powertrain restructured engine production, as that called for a need for additional coordination, as specialization made plants that were previously independent from one another, interdependent.

Indeed as we see it, by far the most dramatic changes have been in the coordination system. The formal structure of activities and responsibilities has been drastically changed. On top of that, more subtle, sophisticated modes of coordination, such as cross-learning, task-forces and culture-building, have been implemented. We believe that in effect, changes in coordination are easier to achieve than are changes in configuration, especially if such changes imply harsh consequences for the managers and employees concerned. Moreover, changes in coordination systems lay the groundwork for subsequent changes in configuration.

Clearly, much more in terms of reconfiguration and redesign of coordination systems has happened during the second than during the first of our two periods, for obvious reasons. We believe though, as has been hinted in the text, that the first period gave scope for learning which presumably were useful, even if not sufficient, to guide decision-making after the acquisitions.

2.9.5. The globalization process

We believe that the Volvo case supports our view that globalization is a time-consuming, iterative process. We point to the acquisitions of Renault and Mack which started processes leading to new coordination structures. Those structures, however, were not planned before the acquisitions were made. They were created by HQ when it was realized that too close coordination under the banner of Volvo Global Truck would damage the possibility of trust between the units and result in a lack of mutual commitment. This meant that the names Renault Trucks and Mack Trucks were retained, and that separate coordinating organizational units 3P and Volvo Powertrain were set up along with some other joint organizational units. It is worth noting that 3P coordinated both the internal network and the external supplier network but that change in this was considered as a matter of long term processes. We can also see that in those processes both the internal network position of HQ and the external network position of the firm were regarded as critical, in the sense that coordination from the (distributed) centre was essential for success of the post-integration effort. Thus reconfiguration and coordination decisions were based on their effects on both the two different network positions. Likewise, the effects on both internal and external trust and commitment developments were considered.

The globalization of the Volvo Group appears to proceed relatively slowly, as we would expect given that the complexities and uncertainties involved are immense. Under such conditions, decisions made too quickly and too boldly run a real risk of failure, with potentially large, negative consequences. The Volvo Group case demonstrates that learning plays an important role in this evolution, that the creation of new structures, systems, and relations are required, and that building trust and commitment are necessary. All of this indicates that the globalization process is iterative and time-consuming. We have to conclude that it is preferable to proceed at a slower pace that allows for learning to take place and for all of the parties concerned to adjust. All this being said, and as we have already remarked, we expect that more reconfiguration moves will follow further down the line when the present downturn in the business cycle which has hit the producers of heavy trucks hard comes to an end.

We believe that the slightly adjusted Uppsala process model that we present in this paper adequately describes the globalization process. We believe too that further research using the modified Uppsala model may be fruitful in enhancing our understanding of the globalization process.

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