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CUSTOMER-FOCUSED AND SERVICE-FOCUSED ORIENTATION IN ORGANIZATIONAL STRUCTURES

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Abstract

Purpose of this paper

The paper provides a better understanding of the interrelatedness of customer and service orientations in the organizational structures of capital goods manufacturing companies.

Design/methodology/approach

A qualitative, multi-case research design was employed using 36 European capital goods manufacturing companies.

Findings

This article explored four different patterns of how companies move from being product-focused to service-focused, and from having an organizational structure that is geographically-focused to one that is customer-focused. The four patterns are termed as follows: (1) emphasizing service orientation, (2) service-focused organizational structure, (3) emphasizing customer orientation, and (4) customer-focused organizational structure.

Research limitations/implications

Although the study is based on 36 case studies, the external validity (generalizability) of the findings could not be accurately assessed.

Practical implications

The description of the four organizational approaches offers guidance for managers to restructure their companies towards service and customer orientations.

Social implications (not applicable)

Originality/value of paper

The article links the relatively independent discussions of service and customer orientations in the context of organizational structures. The four patterns provide a better understanding of how capital goods manufacturers integrate increased customer and service focuses in their organizational structures.

Keywords: Service orientation, customer orientation, organizational structures, services in manufacturing companies.

Category for the paper

Research paper

CUSTOMER-FOCUSED AND SERVICE-FOCUSED ORIENTATION IN ORGANIZATIONAL STRUCTURES

MOTIVATION

Organizational structures of manufacturing companies are currently subject to major change (Antioco *et al.*, 2008, Davies, 2004; Galbraith, 2002; Gebauer *et al.*, 2005; Kowalkowski, 2011). Many capital goods manufacturing companies have changed their organizational structures in order to become more responsive to customer needs or to expand into the service business. In this context, researchers have questioned whether classical product-focused and geographically-focused organizational forms are still adequate (Homburg *et al.*, 2000). Tuli *et al.* (2007), for example, argued that companies still tend to have a product-centric view of organizational structures, whereas customers tend to focus on the relational processes with their suppliers. Often, manufacturers existing organizational structures do not actively support the setting up of such relational processes with customers. Such relational processes concentrate on value creation and increasingly focus on bundles including capital goods and services, rather than only supplying the product (Kowalkowski *et al.*, 2011; Sawhney *et al.*, 2006; Tuli *et al.*, 2007). As a result, companies are not only extending their total offering towards integrated solutions that combine products and services to customer-specific solutions; they are also jeopardizing their existing organizational structures.

In this context, jeopardizing means that companies are looking for more service-focused and customer-focused organizational structures. Oliva and Kallenberg (2003) suggested that moving into the provision of services would be more successful if companies created a separate service organization. Neu and Brown (2005) argued that integrating product and service organizations is a determinant of success for the development of business-to-business services and for moving towards a more customer-centric organizational approach. Whether a capital goods manufacturer should integrate or separate its product and service organizations depends on the service strategy the company has chosen to use in order to move into the integrated solutions business (Bajeva *et al.*, 2004; Gebauer *et al.*, 2010; Sandberg and Werr, 2003). In order to gain a better understanding of

whether it should integrate or separate its service organization, a company should consider detailed organizational functions (R&D, manufacturing, sales, marketing, human resources, etc.) associated with single strategic business units (SBUs), rather than having the change take place at the overall level of the organization (Auguste *et al.*, 2006). Furthermore, Homburg *et al.* (2000) argued that companies that are structured with multiple product-focused and service-focused SBUs tend to move toward customer-focused SBUs.

However, despite the increasing number of academic contributions that examine customer-focused and service-focused organizational structures, they are rarely linked to each other. Given the interrelated nature of customer and service orientations in the organizational structure, there is a clear need for systematic research into the common patterns that underlie the organizational changes. Against this background, this article focuses on three primary objectives. Firstly, it looks for common patterns in the organizational structure when increasing the service orientation. Secondly, it seeks common themes underlying various aspects of customer orientation in the organizational structure. Thirdly, the article explores the interrelatedness of customer and service orientations in the organizational structure.

This article is organized as follows. The next section discusses the relevant literature and develops a conceptual framework. Section 3 explains the research method and Section 4 contains the results. Finally, section five includes a discussion of the findings as well as managerial implications and research limitations.

THEORETICAL BACKGROUND

Types of organizational structures

An organizational chart can be used to illustrate an organizational structure, which is the formal pattern of how a company groups its organizational activities and functions (Gibson *et al.*, 2006). It is important to note that the term *organizational structure* differs from *market-oriented organization*, which emphasizes cultural and behavioral aspects, but does not describe organizations

in terms of how they are structured (Jaworski and Kohli, 1993; Narver and Slater, 1990). Organizational structures are related to how SBUs are organized. Two different dimensions can be used to describe the set of potential organizational structures. The first dimension distinguishes between product-focused and service-focused organizational structures. A *product-focused organizational structure* is an organizational structure that uses groups of related products as the primary basis for structuring the organization (Homburg *et al.*, 2000). In this type of structure, SBUs concentrate on different product groups and services are attached to different product functions (Auguste *et al.*, 2006). In business practice, this would mean that the product sales unit is responsible for service sales, that the service development process is a sub-process of the product innovation process, and that service delivery is organized within the product SBUs.

In *service-focused organizational structures*, all functions associated with developing, selling, and delivering services are placed under the direction of a separate service SBU (Oliva and Kallenberg, 2003; Gebauer *et al.*, 2005). Companies with a service-focused organizational structure create a distinct SBU for services, which fully controls the targeting of customers and the development, pricing, sale, and delivery of service offerings (Auguste *et al.*, 2006). As a result, *service-focused organizational structures* include both product SBUs and service SBUs as a primary basis for structuring the whole organization.

The second dimension distinguishes between *geographically-focused organizational structures* and *customer-focused organizational structures*. A *geographically focused organizational structure* uses geographical territories as the primary basis for structuring mechanisms (Homburg *et al.*, 2000). Such geographic arrangements are advantageous because the physical disconnection of activities makes it difficult to create centralized organizational structures (Bartlett and Ghoshal, 2000; Gibson *et al.*, 2006). A typical example involves sales regions in North America, Europe and Asia that are broken down further into different countries and regions. In *customer-focused organizational structures*, customers form the basis for structuring the whole organization (Homburg *et al.*, 2000). The rationale for setting up customer-focused organizational

structures emphasizes the increasing importance of customer satisfaction and loyalty, which have stimulated firms to search for organizational ways to better serve their customers. There are four different types of organizational structures: product-focused, service-focused, geographically-focused, and customer-focused.

Changes in organizational structures

Despite the rich literature on organizational structures, few contributions have discussed potential movements toward customer-focused and service-focused organizational structures. Two noteworthy exemptions are Galbraith's (2002 and 2005) description of organizations for delivering solutions and Homburg et al.'s (2000) study of change towards customer-focused organizational structures.

By moving into the solution business, companies adapt their organizational concept to become customer-centric (Galbraith, 2002 and 2005). In order to do this, firms move their concept away from profit centers for products, reviews, and teams for products and towards customer segments, customer teams, and customer profit-and-loss responsibilities. This leads to customer-facing organizational units such as global accounts, single points of contact for customers, and SBUs that are structured around different customer segments rather than around products and services (Homburg *et al.*, 2000; Day, 1999 and 2006). These customer-facing organizational units have strong resource flexibility in terms of assessing product and service units (Galbraith, 2002).

Similarly, Shah *et al.* (2006) used the term *customer-centricity* to refer to an organization's customer focus. According to the organizational structure, the customer-centric approach focuses on customer segment centers, customer relationship managers, and sales teams for customer segments (Shah *et al.*, 2006). Interpreting solutions as tailored combinations of products and services (Davies *et al.*, 2007) leads to the assumption that organizational elements related to customer-centricity facilitate both service-focused and customer-focused organizational structures.

The shift from a geographically-focused organizational structure to a customer-focused one means that firms start to reorganize their structures around customer groups (often industry-based) in order to develop coherent solutions (Homburg et al., 2000). These solutions are created by and delivered from multiple SBUs that are focused on products and services. Homburg *et al.* (2000) concluded that such companies move from an organizational structure that is product-based to one that is customer-focused. This change process is also likely to entail shifting the organizational structure towards a service focus due to the need to offer more advanced and specialized services.

RESEARCH METHODOLOGY

Because the exploration of organizational structures is a context-bound organizational issue, this study employed a qualitative, multi-case research design involving 36 European capital goods manufacturing companies (Eisenhardt, 1989). All of the companies offer increasingly complex solutions, including products and services. The services include product-related services such as maintenance services, and more advanced value-added services such as business consulting, R&D-oriented services or operational services. Table 1 summarizes the characteristics of the participating companies.

Insert Table 1 around here

Countries and company sizes are especially important for analyzing various industries because they influence the ways in which firms structure their organizations (Homburg *et al.*, 2000). As a result, the present study is based on a broad range of capital goods industries (for example, machinery, equipment, measuring instruments, and electronic devices), countries (Finland, France, Germany, Sweden, Switzerland, and the UK), and company sizes. Participating companies include Bystronic, Ericsson Operating Systems, Heidelberger Printing Machines,

Mettler-Toledo, Nexans, Toyota Material Handling Europe, Trumpf Machine Tools, Wärtsilä and Xylem Water Solutions (previously ITT Water & Wastewater).

The case studies were performed based on ‘replication’ logic rather than ‘statistical’ logic (Yin, 1989). The 36 companies were selected in order to yield diversity rather than statistical representativeness, which meant it was natural to carry out fewer in-depth case studies. The total number of 36 cases was considered as the point at which theoretical saturation is reached. Following Bowen’s (2008) argument that it is insufficient to state that sampling was concluded once saturation was reached, the following guidelines were employed. The emerging categories of the organizational structure were considered saturated because they were upheld in 34 of the 36 case studies; this was confirmed by interviewee feedback on the analyzed data and made sense on the basis of prior research (Bowen, 2008).

The primary data for the case studies was based on interviews with selected managers who were involved in specifically chosen internal projects related to restructuring their organizations. A total of 94 executives from the management boards were interviewed (between two and five for each case study). The first part of each interview concentrated on historical organizational development because it is important to understand the companies’ backgrounds as well as where they are trying to go. The second part was semi-structured with an emphasis on product-focused, service-focused, geographically-focused and customer-focused elements within each firm’s organizational structure. The researchers asked for the most important elements and used follow-up questions to explore key issues in the organizational structure. This method of using follow-up questions reflects the ‘narrative’ approach recommended by other researchers (Yin, 1989; Miles and Huberman, 1994). At the end of the interviews, the participants were asked for additional comments and to assess which aspects of their organizational structure were most important.

Along with secondary data sources such as internal organizational charts and press releases on organizational changes, the interview transcripts were used to create case studies for each participating company. Each complete case was reviewed by at least one of the interviewees in

order to validate the description of the organizational structures. Inaccuracies and discrepancies were discussed, and changes were made accordingly.

To support the data analysis, most case studies were coded in Nvivo© following procedures outlined in the literature (Miles and Huberman, 1994). Only two case studies were coded and analyzed manually without using Nvivo©. The data analysis was organized as follows. Firstly, the case studies were positioned according to their past and present organizational structures. Secondly, similarities and differences between the case studies were determined through a pattern-matching logic. Using this type of logic, each empirical pattern was compared with the predicted ones drawn from theory. Internal validity was enhanced because the patterns indicate coincidence (Yin, 1989).

RESULTS

The analysis of the first segment of the interviews – that is, those related to the historical development of organizational structures – indicated that most companies originated from a geographically- and product-focused organizational structure. Typically, the entire organization was structured into different product-focused SBUs, each of which SBU targeted certain sales regions. Consistent with the literature, the results suggest that the companies in question have traditionally tended towards product- and geographically-focused definitions of their organizational structures. Sales units were structured around geographies, such as regions (North America, Europe, and Asia) and countries (Homburg *et al.*, 2000).

The analysis of the changes in the organizational structure illustrates that 34 out of the 36 companies have restructured their organizations by increasing the importance of their service focus. Only two companies have customer-focused elements in their organizational structures as points of origin for re-structuring the organization. In both of these companies, modification of legal structures led to a situation where the companies started to depend on one or two specific customers. One example is that of Wiltronic, a manufacturer of electronic boards, which belonged to Leica Geosystems before it was restructured into a separate company. Wiltronic's survival as an

independent company was largely determined by its ability to retain Leica Geosystems as a customer. Thus, Wiltronic was requested to set up various processes and structures to manage the needs and demands of its key customer. These processes and structures were bundled into a dedicated SBU responsible for Leica Geosystems.

The two companies that were not historically structured into product- and geographically-focused organizations are positioned on the bottom left of Figure 1. As illustrated, Wiltronic's approach to structuring the organization is understood as combining a product focus and a customer focus. This is a rare exception, however. The majority of companies typically initiated fundamental changes in their organizational structures in the context of the increasing importance of service. When companies increased the importance of service in their organizational structures, two different patterns emerged. The first pattern of organizational changes is interpreted as emphasizing a service orientation within the product SBUs, while the second pattern is understood as changing towards a service-focused organizational structure. The next two sections describe these patterns in more detail. The two subsequent sections describe the two customer-centric patterns.

Insert Figure 1 around here

Pattern 1: Emphasizing service orientation

Pattern 1 illustrates the first organizational change, which can best be interpreted as emphasizing service orientation. The companies that followed pattern 1 re-structured their historical product focus with a greater service orientation. However, these companies did not restructure themselves into service-focused and customer-focused organizations. Emphasizing service orientation meant that these companies did not set up a distinctive SBU for services in order to move towards service orientation. Although the companies did break free from attaching service activities to product functions, they adapted the product SBUs instead of creating a distinct service SBU. The adaptation concentrated on establishing a distinctive service management function at the

same level of authority as product management. This function of service management bundles all activities related to the service business and runs as a profit center within the product SBUs, with service management handling the service pricing and service cost estimations. Furthermore, the service management not only controls the activities of the technical support services, but also includes the service activities related to the spare parts business, such as spare parts pricing, logistics, and purchasing.

As a result, the responsibility for product management is limited to activities for product marketing, product sales support, and product prices at the central level. The geographically structured sales organization is in charge of interaction with customers and has interfaces with product and service management functions. Products and services of one SBU are considered part of value creation, addressing the same customer needs that belong to one market. Therefore, the sales organization attempts to emphasize charging for services to the same degree as it does for products. Consequently, services are interpreted as individual service *products* that are charged directly to the customers. A typical example of pattern 1 is Mikron, a manufacturer of productive systems solutions. In each of its product-focused units, such as those for transfer machining systems or assembly technology, the service organization is a separate function that is integrated into the product units.

As Figure 2 shows, the majority of companies that have successfully implemented pattern 1 argued that the pattern is not stable. One of the few examples of a company that is considering pattern 1 as its final organizational structure is Bühler, a global technology partner for the food industry, chemical processing, and die-casting. Bühler set up different product SBUs to concentrate on different products, such as die-casting machines, grain milling equipment, or equipment and processing systems for printing inks and coatings. The service organization is attached to the different product SBUs and the company has no intention to move towards a more service-focused or customer-focused structure.

Pattern 2: Service-focused organizational structure

Wärtsilä, the Finnish provider of lifecycle power solutions, is an example of pattern 2 – moving towards a service-focused organizational structure. Wärtsilä saw its product-focused organizational structure have diminishing importance. By setting up a specific Wärtsilä Service division, the company de-emphasized the product-focused perspective of its Power Solution and Ship Power SBUs. A key result of removing the emphasis on both product-focused SBUs is that 40 percent share of the company's revenue was attributed to services in 2007. Companies following pattern 2, such as Wärtsilä, bundle all their service functions within a distinctive service SBU. The service SBU is highly complex and interdependent with the remaining product SBUs and requires intra-business collaboration between the service and product SBUs.

In this pattern, the service SBU takes over full profit-and-loss responsibility for the service business. Unlike pattern 1, the service-focused organizational structure is not only a profit center, but also an investment center because it is also responsible for business development, focusing on the exploitation of future service business opportunities. Voith is a provider of products and services for the paper, energy, and mobility markets. When the company established the Voith Industrial Services SBU, it gave the new SBU the freedom and opportunity to develop the service business in its own direction. Voith Industrial Services exploited several business opportunities by buying specialized but supplementary service companies, or even competitors, such as DIW, Hörmann and Premier, and integrating them. The exploitation of these business opportunities increased the share of revenue attributed to Voith Industrial Services from nine percent to 23 percent. The average growth rate in the service business was on 37 percent over the last four years, which was higher than the growth rate in Voith's product-focused SBUs.

Pattern 2 differs from pattern 1 in its service focus, even though the degree of geographical focus is similar. Pattern 2 adds an additional sales channel for services to the existing sales channels for products in each region and/or country. Consequently, product sales teams that are geographically organized are no longer responsible for service sales, which are handled by a

dedicated team of service salespeople. The only exceptions are services provided during the product warranty period, which are included in the product prices and sold together with the new product. The service costs are charged internally between the product and service SBUs. The dedicated service sales teams are also structured according to regions. A typical example is DMG, which has a distinct business unit for services (DMG Services) that targets its customers with its own geographically-structured service subsidiaries. Over the last five years, the share of service revenue relative to total service has increased from 26 percent to 30 percent. Even more dramatic is the change in DMG's profits attributed to services. In 2002, the profit share generated through services was 39 percent, but this number increased to 53 percent in 2007.

Another example of a company illustrating pattern 2 is Xylem Water Solutions, a manufacturer of submersible pumps and mixers. In 2006, having been part of one of the company's product SBUs for several years, a separate service SBU (Aftermarket & Service) was formed centrally. Locally, the company also has distinct service organizations responsible for developing, selling, and delivering services. In many small and emerging markets, however, the service organizations (still) have no dedicated service sales force, and the services are sold by the traditional product sales force.

Pattern 2 does not seem to represent a straight road to success. Two companies – Unaxis, a manufacturer of equipment for the semiconductor industry, and Saurer, a Swiss-German textile machine manufacturer – had set up service SBUs. These companies both argued for reintegrating the distinctive service SBU by setting up a dedicated service function in the product-focused SBUs. Due to strong changes in sales to Asia, both companies were increasingly confronted with customers demanding services that were free or integrated into the product price. Specifically, customers in China, Taiwan, and Hong Kong argued that services should be free because of the higher prices of their machines and equipment. As a result of these customer expectations, both companies re-integrated services into the product SBUs. Dürr, a painting and assembling system manufacturer, was even forced to sell its service business because of a lack of synergy between the

product and service SBUs. After selling the service business, the remaining services related to the painting assembling systems were reintegrated into Dürr's product SBUs.

The majority of companies, however, remained with pattern 2 or moved forward to pattern 4. However, before examining this transition, we return to pattern 1 and explain how companies that have successfully implemented that pattern continue as geographically-focused and customer-focused organizations.

Pattern 3: Emphasize customer orientation

Companies that have successfully implemented pattern 1 do not consider the movement towards customer orientation by setting up customer-specific SBUs to be an option. These companies argued for setting up only a medium-level customer orientation by establishing dedicated teams for key customers or specific customer segments. A typical example is that of Mikron, described above. The product unit for assembly technology reorganized itself partly in order to place greater emphasis on customers. The unit defined following customer segments (medical/personal care, automotive components, and electrical/electronics), and salespeople became increasingly specialized in each customer segment. It is no longer possible to have a general salesperson who sells products to every customer in one geographical market. Instead, these companies opted for salespeople who specialize in a particular customer segment.

A similar example is Heidelberg, a manufacturer of printing machines. Heidelberg was historically organized around achieving product leadership and competence. In 2000, the company announced it would concentrate on customer understanding in terms of customer orientation. The main triggers for this development were that the company was offering product solutions, marketing applications instead of products, and business consulting. As a result, the organizational structure focused more on service and customer orientations, although Heidelberg did not fully set up service-focused and customer-focused SBUs. Heidelberg's organizational approach includes two product-focused SBUs, namely Press and Post-press, which emphasize a service orientation by

integrating services into both SBUs. The Press division, for example, offers all of the products and services related to offset, packaging, and flexo printing. Within the sales organization, dedicated sales teams concentrate on different printing applications, such as offset, packaging and flexo printing. As result, salespeople who specialized in those types of customer printing applications replaced general salespeople.

Pattern 4: Customer-focused organizational structure

Pattern 4 captures the situation in which companies that have successfully implemented pattern 2 move towards a customer-focused organizational structure. Moving towards pattern 4 involves companies adding a stronger customer focus to their organizational structures and increasingly replacing the geographically driven sales organization and product and service SBUs with customer-focused SBUs. This organizational change can be described in matrix form: on the horizontal axis, companies distinguish between product and service SBUs, while the vertical axis describes different customer-focused SBUs. A typical illustration is Bosch Packaging. On one hand, Bosch Packaging is structured into three SBUs, responsible for machines, systems, and services. On the other hand, Bosch Packaging is structured into two SBUs that focus on customers in the pharmaceutical and chocolate and confectionary industries. The two industries differ essentially in their customer needs and require different sales competencies. In the pharmaceutical industry, the packaging process is rather stable because pharmaceutical products have long life cycles. The packaging process for chocolate changes rapidly and often because of the high number of new confectionary products being introduced. Because only salespeople with specific competencies in one of the two industries will be successful, Bosch has set up two customer-focused SBUs that concentrate on the different industries. Similarly, Mettler-Toledo restructured their organization from a structure based on different types of precision measurement instruments and services to customer-focused business units that concentrate on different measurement applications, such as industrial, laboratory or retail.

In both cases, the customer-focused business units have strong resource flexibility for providing products and services. The customer-focused units share product and service functions, including pricing, marketing, R&D, human resources, and controlling. In the case of Mettler-Toledo, for example, the product and service units and the customer-focused unit negotiate the prices for products and services. The product and service units typically define price range recommendations and the customer-focused units have flexibility in finding the appropriate price for their customers within this price range. As result, companies setting up a customer-focused organizational structure must be able to track the profitability of products and services as well as individual customers or customer groups.

A specific application of pattern 4 is the setting up of key account-focused units, which are most significant within companies with very large historical price differences across countries, from which globally dispersed customers are increasingly trying to benefit. In such a situation, it is risky having geographically uncoordinated prices due to buying firms' increasing tendency to emphasize synergies across countries in their procurement operations. For example, one participating company argued that many multinational customers have placed order requests to multiple sales regions/countries. Sales regions/countries then send uncoordinated proposals and quotes to the multinational customers, which leads to competition between their own sales subsidiaries and price reduction.

The rational response, to avoid these internal price competitions, lies in setting up a key account management system. Firms assign key account managers to be the single point of contact for major accounts, selling the entire range of products and services produced by their firm. Ericsson Operating Systems, for example, established key account managers for its global accounts, such as Telefonica, Vodafone, Deutsche Telekom, and Orange. The key account management teams serve as single contact points for these global customers and offer the products and services of all three product and service SBUs (network infrastructure, professional services, and multimedia solutions).

Toyota Material Handling is the world's leading supplier of counterbalanced trucks and warehouse trucks. Driven by the consolidation and centralization of its major customers, the company is also experiencing a continuous increase in the number of key account-focused units, both nationally and regionally, as well as globally. It is becoming increasingly rare for agreements to be signed that do not include at least a full-service agreement, and it is very rare for agreements to be for trucks only. The company therefore finds it vital both to have a broad spectrum of services and financing alternatives available and to have the same service levels and terms and conditions regardless of local market. This is particularly important for international customers, such as IKEA. As a result, Toyota's customer-focused SBUs have become more important and have greater internal leverage than they did previously.

Analyzing changes in the organizational structures

Figure 1 depicts all four patterns of organizational changes, while Figure 2 summarizes the number of companies changing their organizational structures. Restructuring the organization towards a service orientation (patterns 1 and 2) dominates the sample. Restructuring organizations towards service and customer orientations begins with a company emphasizing services by setting up a service management function within the product-focused SBU (pattern 1). Implementing pattern 1 seems to be a starting point for either moving more into customer orientation or towards a service-focused organizational structure. A total of 32 companies had a product-focused and geographically-focused organization as their point of origin for restructuring the company. All of these companies have restructured their organizations towards emphasizing a service orientation (pattern 1). Fifteen of the 32 companies that were structured as pattern 1 continued to pursue a service-focused approach and set up a distinctive service SBU, while six moved towards customer orientations (pattern 3). These six companies did not set up customer-focused SBUs, instead defining customer-specific teams within the existing product SBUs. In addition, three companies reverted from a service-focused organizational structure (pattern 2) to an emphasis on service

orientation (pattern 1). This means that 11 companies have successfully implemented pattern 2, while 15 companies found pattern 1 to be stable and did not move further towards service and customer orientations. Five of the 11 companies that implemented pattern 2 stated that they had moved from pattern 2 towards pattern 4. That means that five companies are structured in a service-focused and customer-focused organizational approach (pattern 4), and six are structured in a service-focused and geographically-focused organizational approach.

Only two companies cannot be integrated into the four explained patterns. These two companies combine what we call an emphasis on service orientation with customer-focused organizational structures. As Figure 2 shows, these two companies are the exceptions mentioned earlier. For example, Wiltronic (renamed Escatec in 2004) is still organized into customer-focused SBUs. Within the customer-focused SBUs, Escatec extended its breadth of total offerings from pure manufacturing of electronic boards to engineering electronic boards and repairing failures during their usage. The engineering and repair functions are both still attached to the product functions. There is no service SBU that sells and provides engineering and repair services. Despite these exceptions, the majority of investigated companies follow the four patterns outlined above.

Insert Figure 2 around here

DISCUSSION

Theory replication and extension

As explained at the start of this paper, the study makes three main contributions to the existing research. *Firstly*, the descriptions of the four patterns of changes in the potential organizational structures are considered to enlighten the existing discussion on changes in organizational structures towards a service orientation (Auguste *et al.*, 2006). The increasing importance of service orientation follows Neu and Brown's (2005) argumentation that companies should integrate services into the product organization, as opposed to Oliva and Kallenberg's (2003)

argument that companies should set up a distinctive service organization. Oliva and Kallenberg (2003, p. 166) argued that “the creation of a separate organization to handle the service offering” is a determinant of success. However, Oliva and Kallenberg’s (2003) definition of a separate service organization might also include what we call emphasizing a service orientation by setting up service management functions within product SBUs. Although the finding of the present study might be in line with this part of Oliva and Kallenberg’s (2003) argumentation, we could not fully support the second part of their argumentation that these newly created units had a dedicated sales force. In the case of pattern 1, there is no dedicated sales force selling service products. Specific sales channels and forces for services are only established for pattern 2, with a distinctive service SBU.

In addition, the findings for patterns 1 and 2 reinforce Neu and Brown’s (2005) argumentation for increasing the importance of collaborations between organizational units. Pattern 1 requires intra-business unit collaboration across organizational functions that are responsible for products and services. The key element of this type of intra-business unit collaboration is the degree to which resources are shared between product and service functions. Pattern 2, on the other hand, requires inter-business unit collaboration, which includes linkages between service and product SBUs. A key element of these linkages is to develop a shared understanding of the market conditions and the complex needs and wants of business customers. Close collaboration between the different sales channels of service and product SBUs helps clarify common approaches to address customer needs and prevents conflicts between the product and service businesses.

Secondly, the results offer a complementary perspective on customer orientation in organizational structures. Companies that want to create customer orientation have two ways to align their organizational structures. The first involves setting up customer teams in the sales organizations of product SBUs and the second includes establishing customer-focused SBUs. Both options require resource flexibility and profit-and-loss account systems for customers. Thus, metrics such as customer equity (Rust *et al.*, 2004) or return on relationships (Gummesson, 2004) must complement traditional marketing metrics. Interestingly, the findings of the present study do not

suggest pure customer-focused SBUs; companies seem to favor hybrid organizational approaches (Galbraith, 2002) that combine service and customer orientations. Furthermore, despite the increasing need to manage major customers through customer-focused SBUs, the needs of many smaller customers can often be met adequately through product and service SBUs.

Thirdly, and most importantly, the findings link the relatively independent discussions of service and customer orientations in the context of organizational structures. The four patterns provide a better understanding of how capital goods manufacturers integrate increased customer and service focuses within their organizational structures. The results suggest that managers and researchers should consider that movements towards service-focused and customer-focused organizational structures are interrelated. Managers confronted with the decision of whether their companies should move towards a customer or service focus must understand that moving towards a customer orientation requires greater emphasis on a service orientation in the organizational structure. This means that companies typically begin restructuring by de-emphasizing their product focus and increasing the importance of services.

Interestingly, not all combinations of service and customer orientations in an organization seem possible. Setting up a service function in a product SBU only offers companies the opportunity to define customer-specific teams in the sales organization. A complete customer-focused approach, in terms of setting up customer-focused SBUs, does not seem possible. The service-focused organizational structures, on the other hand, seem to be an antecedent to the customer-focused organizational approaches. One possible explanation for this is the rethinking of customer solutions from tailored product and service bundles to relational processes (Tuli *et al.*, 2007). The only way to design relational processes with customers in situations where companies run distinctive product and service SBUs is by implementing customer-focused SBUs. Therefore, despite the interrelatedness between service and customer orientations, an orthogonal development from a product-focused to a service-focused approach, and then from a geographically-focused to a

customer-focused approach, is the most likely organizational trajectory for providers of advanced services and solutions, rather than concurrent development.

The strength of the three contributions discussed above stems from their ability to extend theories rather than simply replicate them. The four organizational approaches offer a complementary perspective to the existing classification system of either integrating the service into the product business or separating the two. In addition, the four organizational approaches broaden the literature on customer orientation in the context of organizational structures and emphasize the interactions between service and customer orientations.

Limitations and future research

This study has certain limitations. Firstly, although the study is based on 36 case studies, the external validity (generalizability) of the four organizational approaches could not be accurately assessed. Within qualitative research, however, the number of cases is not relevant as long as the patterns observed in the data are not incidental (Normann, 1970; Yin, 1989). In order for generalization of the four specific patterns to be valid, it must be tested in other substantive areas and would benefit from insights obtained from quantitative data. This is beyond the scope of this research.

The study is also limited by the fact that it concentrates on the service and customer orientations in the organizational structures, but neglects the potential interaction between organizational structures and corporate culture and human resource management. Such interactions may exist that strengthen or weaken the effects of the four patterns on organizational performance. Therefore, an interesting future research field would be the extension of organizational structures by key issues arising from corporate culture and human resource management (Bowen *et al.*, 1989). This would revitalize Bowen *et al.*'s (1989) and Galbraith's (2002) argument that service and customer orientations cannot be attributed to individual organizational factors, but are specific configurations of different organizational factors. The term *configuration* describes a coalescence of

the organizational factors, where they are internally consistent, complementary, and mutually reinforcing. Bowen et al. (1989) argued that the coalescence among the organizational factors, as opposed to the individual contribution of one organizational factor, determines whether a manufacturing company achieves a sufficient degree of service orientation. Galbraith (2002) highlighted the fact that movement towards customer-centric organizational units requires modifications in human resources, processes, rewards and structures. The success of customer-centric units depends on the alignment among these four elements (Neu and Brown, 2008; Shah *et al.*, 2006).

Another avenue for future research would be to analyze the internal and external motivators of the different changes in organizational structures. This would both extend the findings of this study and complement previous research on motivators for extending the service business in manufacturing companies (Gebauer *et al.*, 2005; Mathieu, 2001; Penttinen and Palmer, 2007). For example, it would be interesting to examine which motivators can be linked to specific patterns of organizational change and which motivators are context-specific rather than pattern-specific.

Managerial implications

The findings offer a complementary perspective to existing ideas advocated by managers; the key managerial implications and recommendations are interpreted as follows. Our findings suggest that structural changes are needed in order to make manufacturing companies more customer- and service-oriented. Managers should be aware of the tendency to depart from pure product- and geographically-oriented organizational structures. The description of the four organizational approaches offers guidance for managers seeking to restructure their companies towards service and customer orientations. The four approaches describe organizational structures, which makes it relatively easy to develop an action list with which to implement one of the four organizational structures. The results suggest that managers should start to increase the service orientations of their organizational structures. For example, managers can enhance the service

orientation of organizational structures by increasing the emphasis on services. The emphasis placed on services relates to actively offering services to its customers. Further managerial actions refer to service orientation in employee behavior and roles, as well as in human resources. By stressing the value of providing and living out the value of services, managers can increase the service orientation of the organizational structures. Human resources for further enhancing the service orientation can be developed through recruiting, training, and rewarding service skills (Homburg *et al.*, 2003). Such skills are also highly interrelated to customer orientation. Service skills often refer not only to technical expertise to provide inspection and maintenance, but also behavioral competencies.

Companies wishing to increase their service and customer orientation must recruit adequate frontline employees. Adequate in this context means that the employees must possess strong technical expertise, but also behavioral competencies and customer-focused attitudes. Such competencies and attitudes enable employees to listen to and communicate with customers and to develop a learning relationship with customers (Ballantyne *et al.*, 2011; Neu and Brown, 2005). While structural changes toward service and customer orientation can probably be made relatively quickly, the modifications in corporate culture and human resources, among other things, require to align service-focused and customer-focused structures are long-term tasks (Homburg *et al.*, 2000).

Furthermore, all four patterns change the authority and responsibilities of traditional product-focused and geographically-focused organizations. Such changes often cause internal resistance, which can only be overcome by involving all parts of the company in the organizational change process, thereby increasing the acceptance of new organizational patterns in all relevant business units or departments. Additionally, it appears important for the entire procedure to be both systematic and transparent, incorporating frequent feedback loops between the phases of formulation and implementation of changes in the organizational structures.

Managers contemplating a change in the organizational structures of their firms must not only consider the single dimensions of customer and service orientations, but should also

concentrate on finding alignments between the two (for example, patterns 1 and 3 as well as patterns 2 and 4). As illustrated in Figure 1, managers cannot enhance customer orientation without first achieving a service orientation. Thus, managers must understand that a customer orientation in the organizational structure is triggered by a service orientation.

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FIGURES AND TABLES

Industry & products (Number of companies)	Characteristics of the companies participating
<ul style="list-style-type: none"> • Machine centers and Flexible Manufacturing Systems (FMS) (1). • Printing machines & equipment (2) • Electronic boards (1) • Compressors (3) • Telecommunication equipment (1) • Production systems for the semiconductor industry (1) • Die-casting machines (1) • Ship & power plants (2) • Manufacturer of parking systems (1) • Chemical process equipment (2) • Office furniture systems (1) • Lightning systems (1) • Manufacturer of weaving machines and drying plants (1) • EDM machines (1) • Materials handling (1) • Storage systems (2) • Milling machines (2) • Graining machines and equipment (2) • Textile machines (2) • Food processing equipment (1) • Glass-cutting machines (1) • Pharmaceutical process equipment (1) • Laser equipment (2) • Water & wastewater treatment equipment (1) • Packaging machines & systems (2) 	<ul style="list-style-type: none"> • <i>Countries:</i> Finland, Germany, and Sweden, Switzerland • <i>Company size:</i> Between 130 and 82,000 employees • <i>Complexity of the capital goods:</i> Medium to high • <i>Position in the value chain:</i> Companies are positioned as Original Equipment Manufacturers (OEMs), system integrators, or sub-suppliers

Table 1: Characteristics of the companies.

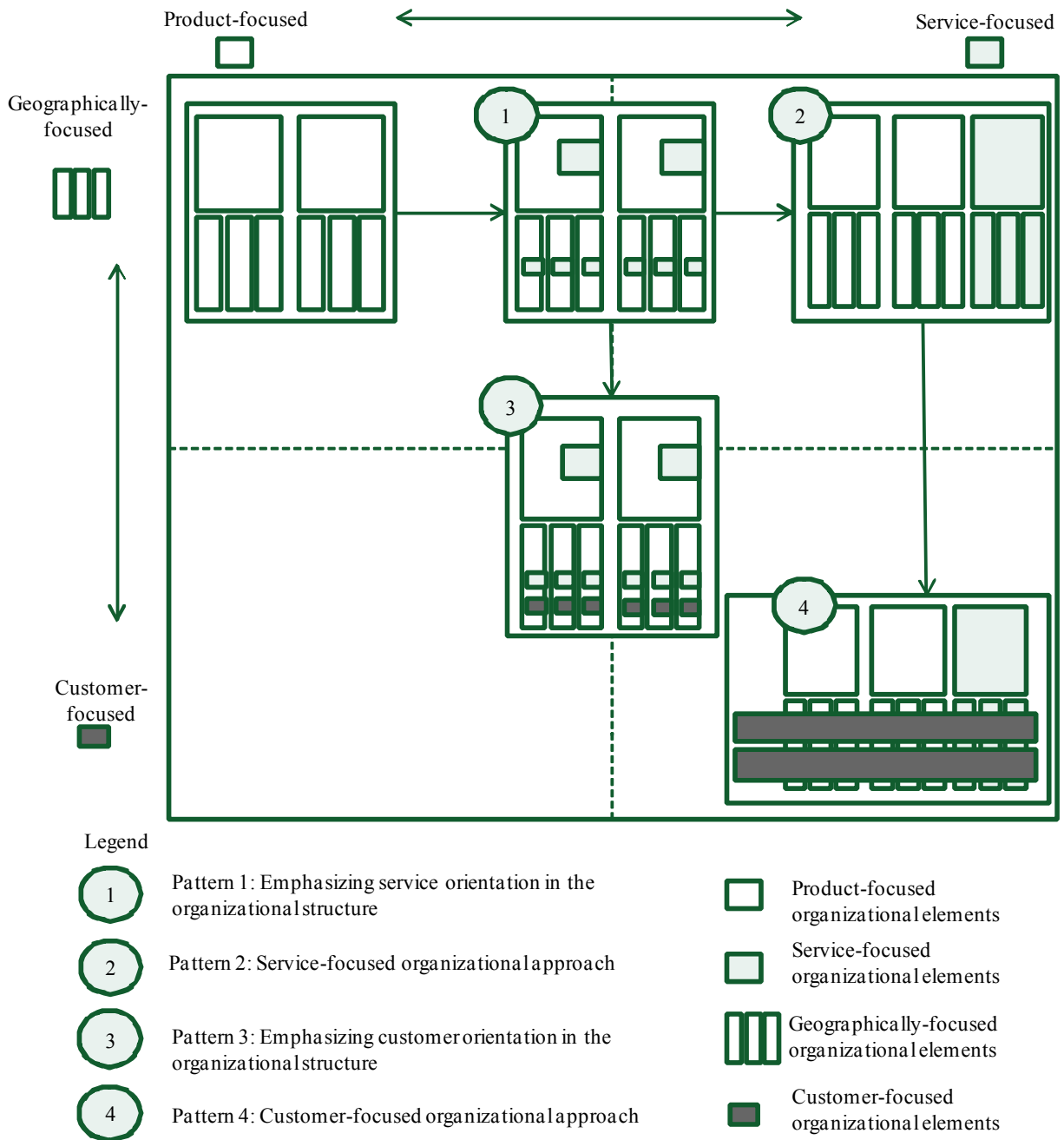


Figure 1: Organizational structures.

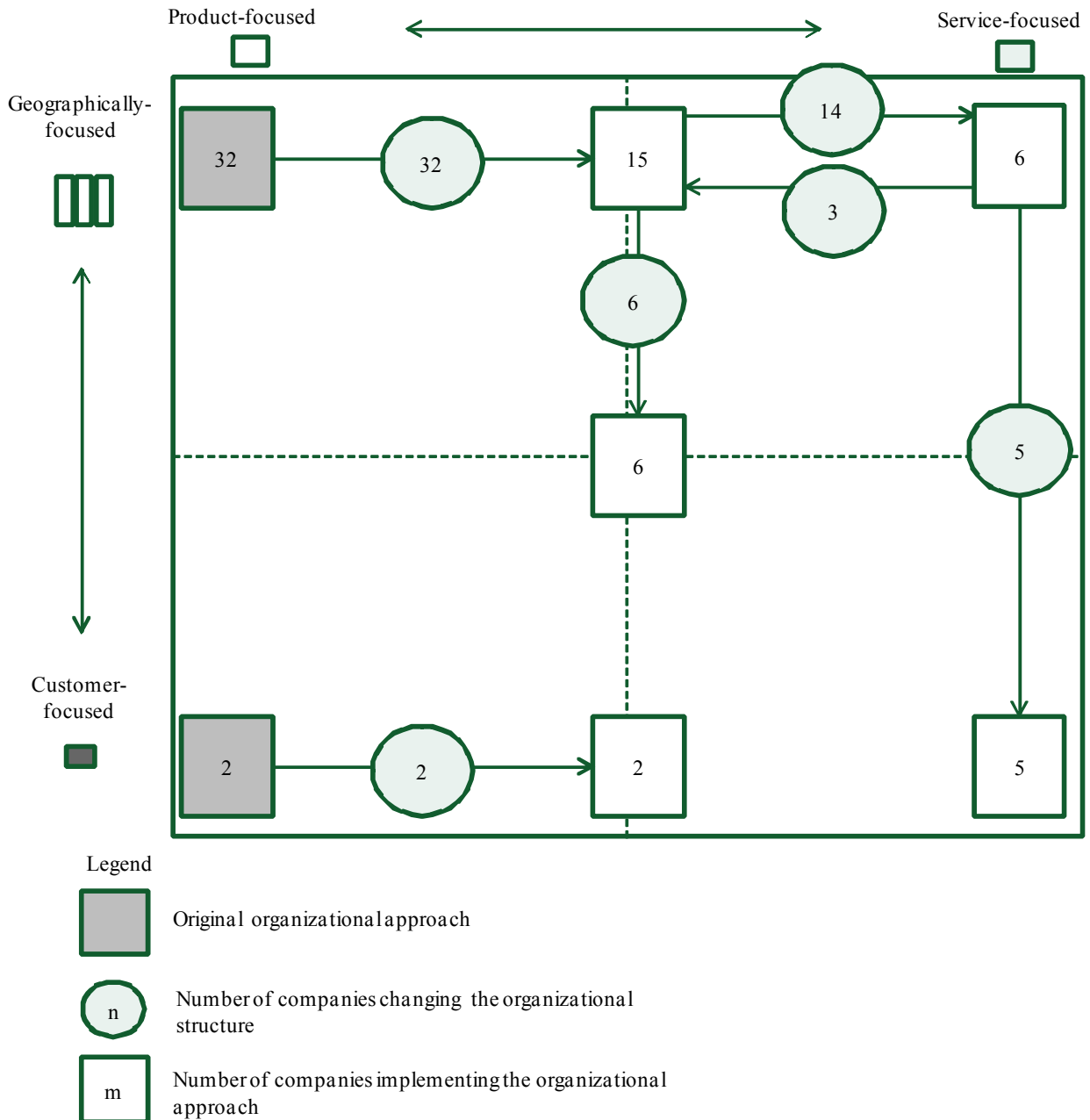


Figure 2: Positioning investigated companies in the analytical framework.

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