Coping with alternatives in sales organisations: Experiences from an Italian company

Andrea Perna · Silvio Cardinali · Gian Luca Gregori

Abstract: This paper analyses the relevant aspects of the transition that must be addressed when companies operating in mature markets change from one sales structure to another. In our specific research context, we try to shed light on the transition between one sales configuration based on manufacturer’s representatives (reps) to a different configuration set on the direct sales channel. The research uses a single case and exploratory method, focusing on the Italian firm Santarelli, which operates within the construction industry. Santarelli is a general contractor that also handles the sale and management of properties for residential and commercial use. After analysing its competitive context, Santarelli created its own sales offices, slightly veering away from its established network of intermediaries (real estate agencies). The general conclusion is that changing the sales organisation is a non-linear process: one way of managing complex changes is to keep business relationships alive within the business network.

Keywords: Sales Channel · Intermediary · Channel Shifting · Construction Industry · Transition · Case Study

Published online: 29.09.2013
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Introduction

Increasing numbers of firms are outsourcing their sales and distribution functions, such as by developing relationships with intermediaries like a “contract sales force” (McQuiston, 2001). In determining whether to refer to an intermediary and under which conditions, it is contributory to rely on intermediation in general, which has been a central topic in the marketing literature (Avlonitis, 2010; La Placa, 2010). Powers (1987) pointed out an important question about when and under which conditions it is desirable for a manufacturer to switch from its intermediaries to direct salespeople. Powers (1987) discussed a method based on forecast potential to justify the change from company agents; in primarily dynamic industries, it is advisable to change from one method to another. This paper attempts to explore the specific driving forces that lead a company to design and organise its sales channels to discover the consequences of shifting a sales channel from one configuration to another. Following Chen et al. (2008) and Zoltners et al. (2006) in interpreting changes or shifts within sales channels, we concur that changes should be considered decisions to modify the channel structure (from one typology to another). Specifically, this paper focuses on the modifications in firms’ sales channels when overall market conditions vary as either the increased competition or the growing sophistication of customers’ demands often encourages firms to change their sales patterns. Beyond analysis of the relevant factors and conditions that companies must cope with when the sales structure is set, we are focused on the “transition” phase. Transitioning from a manufacturer’s representatives (reps) to a direct sales channel constitutes a potentially interesting field of research. Organising a direct channel is not easy; it requires organisational principles as well as structures and processes new to the manufacturer. For instance, new capabilities are required and the shift implies costs and new resources to exploit. The literature is rather scarce in indicating the challenges inherent in transition, and this gap has encouraged our research.

To support our aim, we seek to answer the following questions: How does a company deal with the transition from reps to a direct sales channel? Do the conditions that foster the shift affect the management of the transition phase? This paper reports the findings from a qualitative single case study of a construction company that has initiated changes in its sales channel structure from reps to direct sales.

The paper is structured as follows. After presenting our theoretical framework, we explain the methodology; this will be followed by illustration of the empirical case study. Afterwards, we will discuss our findings, concluding the paper with managerial implications.
Theoretical framework: Managing the transition from reps to direct sales channel

Changing the sales structure leads companies to contemplate several issues, including when the new sales configuration must be determined and implemented. Accordingly, it is quite complicated for the company to deal with issues that arise in the phase between choosing to adopt one configuration and implementing the new sales strategy. In our argument, transition refers to a period of transformation or reorganisation of the sales arrangement. Navigating the transition might be positive if companies succeed in reaching their goals, or it could be a painful process if the organisation does not successfully cope with the change.

Our framework is divided into three sections. The first section discusses the motivations that lead the company to choose at a general level between different sales structures and at a particular level between manufacturers’ reps or a direct sales channel (DC). The second section outlines the antecedents of the shift in sales channel. The third section will try to explain how companies handle the transformation from reps to DC.

The Appendix contains a summary literature review based on key references concerning (1) conditions and antecedents for structuring sales organisations, (2) dimensions involved when companies deal with changes in sales channels and (3) choices in adopting reps or DC.

Alternatives and key factors in choosing between reps and DC

Determining how to design and organise a sales channel has been a central topic on the agenda of many researchers and, over the years, the literature has discussed contributions addressing this issue. For instance, Dishman (1996), in discussing the conditions about which managers should be concerned when making channel decisions, showed that the evaluation process may originate from an economic issue but it has to match other internal and external determinants.

From a theoretical point of view, the transaction cost theory (TCT) has generated interest in its application beyond economics (see Rindfleisch and Heide, 1997); for instance, it has been applied to marketing studies that examined important issues within sales and distribution channels management (Anderson, 2008).

Channel design decisions are based on several dimensions, as illustrated by Anderson et al. (1997). Important key factors, among others, result from the types of intermediaries. In this respect, there are two broad channel alternatives, usually recognised as vertically integrated channels versus independent intermediaries. The TCT theory provides interesting insights concerning the key factors that companies must consider when taking decisions on the sales structure, such as the characteristics of the product and the company’s size.
The characteristics of the product in terms of service requirements (Anderson and Coughlan, 1987) may affect the channel design. When the product requires a high level of service (demonstration, installation, after-sales service), an integrated channel could improve service performance through efficiency as compared to an independent intermediary. The independent intermediary might lead to increased costs because of the difficulty and expense associated with monitoring its service performance. Also, according to Anderson and Coughlan (1987), the degree of product differentiation may influence channel selection. In that the product is differentiated, it might be more convenient to sell it using the company’s own structure due to the customers’ perception of the complexity of the buying process. In this case, the agent would not have all the information necessary for the customer to buy the product. McQuiston (2001) claimed that manufacturers’ representatives depend heavily on manufacturers for activities (e.g. shipping, invoice) necessary to serve the ultimate users of the complex products. Why manufacturers rely on an independent channel intermediary has also been addressed by Gilliland and Bello (2002). According to them, an attitudinal commitment force links the manufacturer to an intermediary although social bonds are underdeveloped. In contrast, Bellizzi and Glacken (1986), in illustrating why manufacturers might encounter difficulties in using reps, stated that the recruiting is critical to building a successful rep sales force.

The company’s size represents another feature to consider when the sales channel must be organised. Vertically integrated channels have been suggested more for large companies than for small companies to justify more financial resources to set up a company’s own sales organisation (Anderson and Weitz, 1986). In fact, manufacturers often rely on reps when they have limited resources for developing personal sales efforts (Powers, 1989).

Finally, according to Shapiro (1977), small companies rely on representatives during their development and maturity phases while they prefer to develop their own direct sales force when they reach a moderate size.

Antecedents of sales channel shifting

Why a certain sales structure is changed is an interesting but tricky issue to address. To examine this topic, we need to identify the antecedents for companies’ decision to shift the sales channel.
The literature indicates a variety of different motivations and antecedents for changing a sales structure. According to some authors, such as Powers (1987), the economic side or dimension drives the process. In his article examining why companies shift from reps to DC, he stated that the most important criteria involve the sales potential for a given territory, or “economic criteria”. In contrast, Weiss and Anderson (1992) pointed out that not only do economic reasons play an important role in pushing managers to change the sales arrangements, but psychological motivations lie behind the managers’ choices. In the same vein, Weiss et al. (1999) stated that the decisions to integrate the sales structure vertically or switch to reps are driven by reputational concerns instead of economic reasons: “we find that as the manufacturer’s reputation exceeds that of the rep, and the manufacturer’s belief that highly reputable firms use their own sales force increases, the manufacturer’s intention to change its sales organization structure by vertically integrating the sales force also increases” (Weiss et al., 1999, p. 86).

At a general level, as Bucklin (1966) stated, the distribution and sales channels are always under certain pressures that mostly come from outside the firm, for instance, changes in the customer level of demand and consequently the scale of operations.

Rapp (2009) analysed firm-specific factors leading a company to outsource the sales process to independent actors such as reps; he highlighted that not only the cost reduction but also the firms’ strategic orientation affects the decision whether to adopt the direct channel. In this logic, Rapp (2009) stated that if the firm is oriented to exploit its brand strategy or if the company is very much customer oriented, the tendency to outsource the sales force is reduced.

**Managing the transition from reps to DC**

This transition between one channel and another is characterised by a complex combination of several factors or conditions that are interdependent of each other. For instance, it is necessary to balance an already existent structure with goals established for the new arrangement. To explore what aspects are relevant to manage when switching from reps to DC, we can rely on the work done by Hurley (1998) and Ross et al. (2005). Their contributions are relevant to those interested in analysing the relevant aspects to address when companies face the transition from one sales arrangement to another. Hurley (1998) carried out research based on two sales organisations that faced radical changes in their sales structure. He adopted a change management perspective (Nadler, 1989; Kotter, 1995) in investigating the way to manage changes, which can be viewed as the attempt to handle the transformation from one structure to another. By referring to a critical literature review of change management applied to sales organisations, Hurley (1998) presented nine propositions for successfully managing changes in sales organisations. Since we adopt a slightly different perspective – analysing the relevant aspects to address when companies change sales organisation from one structure to another – we will refer only to certain variables or dimensions.
During the transition, the firm should manage customers' reaction to the change. This is really an important element because shifting from reps to DC might affect the business relationships with customers (Myers et al., 2004). In this respect, it is quite critical to manage correctly the period of ambiguity and confusion which will follow the change and to maintain a clear customer vision.

Hurley (1998) built another valuable proposition that deals with the need to manage the steps toward the new sales structure also considering sales force behaviour. The organisation requires “an understanding of why the old ways are no longer appropriate” (Hurley, 1998, p. 64): in other words, the rationale behind the change should be shared within the organisation from the top levels down. The involvement of employees and customers might also be fruitful when critical and radical changes are implemented (Brockner and Wisenfeld, 1996).

Another key aspect to deal with during the transition, according Hurley (1998), is the interdependency between the intra- and inter-organisational dimensions. Internal and external dimensions of sales channel organisation affect each other, and all these dimensions must be taken into account and managed during the transformation, as suggested in studies carried out within the industrial network model (see e.g. Håkansson, 1982; Håkansson and Snehota, 1995).

Ross et al. (2005) investigated how companies should manage the transaction period when changing the sales structure toward DC; they stressed as most important the need to train and indoctrinate the sales staff. This is consistent with Jackson (1985), who highlighted the importance of setting up certain activities such as training of salespeople when companies switch sales channels. Moreover, Jackson (1985) suggested the importance of developing, if necessary, information systems to assist in the transformation phase.

**Methodology**

The current research adopted a case study approach (Yin, 1989), focusing on Santarelli Costruzioni S.p.A., an Italian company operating in the construction industry. Using this company enabled us to investigate complex questions, such as how the company in question has managed its distribution channels within its organisation, including its effects on internal and external processes involving middlemen relationships. The data were gathered during interviews with company executives. These interviews were supplemented with secondary data in the form of company brochures and internal documents.

The data were collected from December 2010 until February 2012, employing both face-to-face interviews and telephone interviews lasting between 30 minutes and 1 hour. The interviews were tape-recorded and transcribed. We ultimately conducted 10 face-to-face and telephone interviews, including those with the sales director, the sales manager, and a key account manager employed in one of Santarelli’s real estate agencies (see the Appendix). The interviews focused on the following central themes:
(1) distribution choices in the construction industry in general and for Santarelli in particular; (2) key business relationships between Santarelli and its real estate agencies; and (3) the rationale behind the strategic “channel” management decisions and their consequences for the company’s operations.

The Santarelli Case Study

Santarelli Costruzioni S.p.A., an Italian company operating in the construction industry, is located in the Marche region. In 1960, Pietro Santarelli transformed the artisan work of his father into a real enterprise, setting up the firm Pietro Santarelli Costruzioni; after continuous expansion, it was renamed Santarelli Costruzioni S.p.A (Santarelli). During the 1970s and 1980s, the company grew fast and gained a significant number of orders from the civil and public sector. At the end of the 1980s, the company began to extend its business beyond Rome and the Marche region to other parts of Italy. In 1995, Pietro’s sons joined the company after graduating from university, holding managerial positions. Today Santarelli is a holding company of 15 SBUs employing more than 1,000 people in several fields, spanning from real estate to the energy and tourist sectors. Santarelli acts as a general contractor, designer, builder and buyer, and it handles the sale and management of properties for residential, managerial, commercial and tourist-hotel use.

In this case study, we focus on Santarelli’s activities in the building industry, which is the core business of the group. Santarelli operates in three different sectors:
- non-residential building,
- residential building,
- public housing.
Half (50%) of the company’s turnover comes from buildings sold in the Rome area while the remaining 50% comes from buildings sold in central Italy, in regions such as Marche, Umbria and Toscana.

The Santarelli philosophy is to outsource the most important parts of the building processes to reduce the company’s involvement in activities not considered to be value-driven. The construction of a building starts with research and development (R&D) activities carried out by Santarelli sales and technical directors with the aim of validating the project’s economic feasibility. Once Santarelli’s top management accepts a project, the operation cycle begins. Customers can purchase the building from various real estate agencies that represent the middlemen (or intermediaries) or through Santarelli’s sales office.

Relationships between Santarelli and its intermediaries

New buildings developed by Santarelli are introduced to customers through real estate agencies whose role is to show apartments built by Santarelli and sell them to the customers. Thus, Santarelli’s sales team’s mission is to find and select the most
promising real estate agencies while also emphasising training these agencies. Salespeople from real estate agencies should have strong technical expertise in both housing and sales skills, according to Santarelli’s philosophy. In particular, the development of sales skills is a major priority at Santarelli. Thus, the business relationships between Santarelli and its agencies are clearly very tight, but they do not last very long as they usually dissolve when the agencies sell the apartments or building. The duration of the relationships with the agencies ranges from four to eight years, depending on the complexity of the project.

Different types of agencies were tracked during the current study, including agencies that operate using the Santarelli brand and autonomous agencies using their own brand. We also included agencies consisting of different and autonomous entities using their own brands but operating directly under the supervision of the Santarelli sales office. For example, one major agency located in the city of Ancona (Marche region) operated as a holding company under the Santarelli brand while its three subdivisions operated with their own brand.

The business relationships with the agencies constitute a major asset for Santarelli in terms of promoting its products to the market and to the ultimate customer. Santarelli routinely plans meetings for ordinary sales activities or to address specific commercial projects of strategic importance. In some cases, management of the relationships with key agencies gains high relevance, and Santarelli takes advantage of such resources to improve its offerings and its relationships with its ultimate customers, who also play a key role as they provide input into new product development processes. However, in other cases, relationships with agencies are complex and conflicting, which results in tensions and difficulties. One main cause of conflict, according to the sales director of Santarelli, is the terms of payment agreed upon between the agency and the final customer.

Santarelli exerts strong influence on agencies and its management team must sometimes manage internal conflicts among the agencies. Santarelli’s sales team spends a significant amount of time coordinating activities and initiating sales projects. One reason for this is the great need to teach agencies how to handle flows of information.

Changes and evolution of Santarelli’s sales organisation

By the beginning of 2008, Santarelli - in its attempt to improve the quality of customer service and deal with competition that was gaining strength in the building sector - had to upgrade its sales organisation. It first started to improve the value of its products (e.g. apartments with a higher level of comfort incorporating high technology) as well as the delivery of its products and after-sales service. The emphasis on the technological profile of its products was the result of an increase in R&D investment, which also led to quick implementation of customers’ requests. The customer orientation approach Santarelli adopted was exemplified by the fact that it also offered consulting services to clients facing financial issues.

A major strategic decision that Santarelli had to make involved the re-organisation of its selling activities without the involvement of external agencies. In fact, in Rome, which accounted for a large percentage of its business, Santarelli established its own
sales organisation, reflecting a new way to sell its products. The company appointed a
sales director, who was assisted by area and regional sales managers and an internal
sales force, to plan and implement sales strategies for the area in which construction
sites were opened. To improve the planning and coordination of selling activities,
Santarelli adopted a customer relationship management (CRM) system. The software
helped salespeople analyse customers’ portfolios and manage customers’ visit
reports. In this context, customers interacted directly with the internal sales force,
which provided support in terms of technical solutions, delivery and service. In
addition, the new sales organisation received support from the marketing office, which
is responsible for market analysis, communication campaigns and participation in
trade fairs and exhibitions. Using the CRM system, this office also became involved in
customers’ portfolios and customer satisfaction analyses.

According to Santarelli sales personnel, the major new challenge facing the current
organisation is the appropriate management of the processes concerning the search
for new customers and the establishment of good relationships with both existing and
new customers. In this context, when a new customer is contacted, the sales
personnel receive support from a team of civil engineers and architects who take a
lead position in activities concerning the technical dimensions of the product offered. In
fact, in the new sales organisation, technical people are also fully committed to
proposing technological solutions and helping sales personnel demonstrate technical
competence when dealing with sales projects.

Given that customer service is of paramount importance in the market in which the
company operates, particular emphasis is placed on this issue. Previously, customer
service activities were carried out by the real estate agencies, which were much more
concerned with the selling of a building or apartment than the after-sales service
activities; consequently, the results on this front were not satisfactory. In the new sales
organisation, customer service activities are the responsibility of people with an
appropriate background who are able to handle complex customer requests.

Thus, Santarelli has attempted to enhance its brand recognition not only through a
better product offering, but also through a sales organisation involving the presence of
its own sales force in various geographic regions to improve the level of interaction
with the ultimate customers throughout the selling process.

Case analysis

Our analysis focuses on two themes: How does a company cope with the several
aspects which emerge during the transition from reps to DC? Can we assume that the
conditions that led the company toward the shift have an impact on the transition
phase?

Our case study provides insights into the conditions which led Santarelli to change
its sales arrangement. Historically, Santarelli has relied on reps to develop all sales
activities. The spark to shift this established configuration was Santarelli’s aim to
collect and keep strategic market information in a more strategic and organised way
than it had in the past.

According to the management, the company’s intermediaries often had not shared
relevant facts regarding customer needs, market trends or competitors’ positions.
Moreover, Santarelli perceived that its representatives could not transfer knowledge about products offered to potential customers due to their lack of technical skills and competencies.

The transition toward the DC configuration appears complex, and customers’ requests certainly pressured Santarelli. A first problem was that Santarelli did not have all the competences and resources needed to set up the new sales structure, nor did it know that DC would be the right solution to satisfy customers. In fact, the new process to reach the final market by creating its own sales force has been critical for Santarelli. In this respect, we identified certain effects on Santarelli’s behaviour to better engage its organisation when defining the distribution and sales arrangement. Keeping some relationships with real estate agencies was necessary to maintain tight connections between internal staff and the customer so as to develop activities and exchange resources. In this sense, it was important to address the problem of integration.

Another relevant issue during the transition phase was related to how to combine the upcoming DC with the already existent structure. With regards to the activities undertaken, Santarelli personnel from technical departments became more customer-oriented. They were responsible for the design and creation of new concepts for buildings according to customer needs; therefore, technical personnel had to collaborate closely with the sales and marketing units to fulfil client needs. This process required significant time and involved actors such as the historical Santarelli reps: thus, relations with the reps were exploited to improve the sales skills (learning by interacting). It became clear that Santarelli played a critical role as a “buffer” linking several different activities carried out by actors such as the reps, the customers and the sales personnel.

With regards to our second research question, concerning whether motivations that pushed Santarelli to change its sales structure affected the transition process, we found at least two relevant connections.

In particular, the decision to set up Santarelli’s own direct sales channel was certainly motivated by a lack of customer knowledge. In addition, this aspect was an important premise for setting up a new information system. In fact, Santarelli’s top management decided to build up CRM software to store and collect customer information. Adopting a CRM system was considered helpful in recovering market information the reps held to educate the new salespeople about customers.

Another reason for switching the sales structure that had a direct impact on management of the transition was linked to the business opportunities existent in a particular Italian area. Santarelli decided to begin by adopting the direct sales channel in the Rome area because of the potential to achieve high profits, according to a market analysis the marketing office conducted. Benefits from Santarelli adopting a direct sales strategy are strongly connected to aspects such as the attractiveness of a geographic area (e.g. Rome) and customers’ buying behaviours.

During the transition, Santarelli had to continue its relationships with a number of reps because it did not have knowledge concerning specific markets. Also, Santarelli had to start the process of choosing who would become salespeople. In this respect, the transition was characterised by the development of new activities, such as the recruiting and training of salespeople.
To sum up, by switching its sales organisation, Santarelli became aware of customers’ needs because it developed its organisational processes in a more efficient way than it had in the past. We argue that the selling channels also facilitated the creation of more favourable conditions for customer relationship development. In this respect, Santarelli can propose its brand directly to the market and avoid being seen only as a building contractor.

Conclusions and managerial implications

The paper has investigated sales channel changes and how a firm might accomplish the consequent transition phase. We stated that managing the transition is a blurred process since it takes time and is onerous as well as ambiguous. The present study contributes to the research on the relevant aspects to address when organisations switch from reps to the direct channel system by suggesting that those aspects might affect the transition phase. Based on the extant literature that refers to the transaction cost theory in choices to adopt either reps or direct sales channels (e.g. Anderson, 2008; Anderson et al., 1997; Anderson and Coughlan, 1987; Anderson and Weitz, 1986), shifting sales channels (e.g. Bucklin, 1966; Powers, 1987; Weiss and Anderson, 1992; Weiss et al., 1999; Rapp, 2009) and change management perspectives (e.g. Hurley, 1998; Ross et al., 2005), as well as the analysis of an illustrative case, this study suggests that exploiting already existing business relationships with reps facilitates the mechanism of building the direct sales channel. Some implications for managers emerge from our findings. Generally, the decision to switch from manufacturers’ intermediaries to direct salespeople is difficult as many trade-offs must be considered (Powers, 1987); however, the most critical aspect is understanding how the transition from one system can be accomplished. The case provides critical evidence for what a company must manage when modifying its sales structure:

- analysing market conditions;
- keeping or dismantling all or part of distribution relations;
- defining new processes and acquiring new competences;
- developing and embedding within the organisation information technology (IT) systems for improving customer knowledge management processes.

The company’s management should analyse its target market to assess whether the sales channel transformation is necessary. Adopting the direct sales organisation can present an opportunity when market demand is increasing and, for companies operating within the construction industry in particular, when it might be possible to develop projects in the future (new buildings). Companies should also compare the channel structures within their industry to identify best practices. In fact, dismantling relationships with intermediaries could hinder the company as intermediaries play an important role as market information gatherers. Replacing them could be difficult if the company does not integrate certain competences/capabilities (e.g. market analysis, customer knowledge management) internally.
In addition, it is always necessary to consider that the company must invest in training new salespeople; certain activities might require training from the intermediaries. When the product is complex, like a building, it is imperative that salespeople possess a high level of product knowledge.

Finally, for managers engaged in this process, it is also important to adopt IT to support customer relationship management. A CRM system includes basic elements such as databases; analytical tools to create, evaluate and manage information about customers; and decision support systems such as data mining (Daghfous and Barkhi, 2009). IT systems such as CRM allow for the more efficient use of customer information within the organisation, especially when relationships evolve.

Limitations of the study

The conclusions of this study must be considered with care since they are based on one exploratory case study representing the construction industry that is defined by certain market characteristics. In this respect, extending the empirical ground by adding more cases might strengthen our results. Another limitation is that this study relies on the manufacturer’s perspective when the process of change is analysed, and this also limits the possibility that the findings can be generalised. The customer’s perspective might add interesting insights when the transition phase is studied, although this study aimed to provide exploratory ideas (Yin, 1989). Further research integrating the customer’s perspective regarding the shift of sales channel and its impact on the manufacturer’s organisation might offer interesting results.
### Appendix 1: List of interviews

<table>
<thead>
<tr>
<th>Role of the informant</th>
<th>Company</th>
<th>Type</th>
<th>Form of record</th>
<th>Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Sales director</td>
<td>Santarelli</td>
<td>Face-to-face</td>
<td>Notes</td>
<td>45 minutes</td>
</tr>
<tr>
<td>2 Sales manager</td>
<td>Santarelli</td>
<td>Face-to-face</td>
<td>Notes</td>
<td>45 minutes</td>
</tr>
<tr>
<td>3 Sales director</td>
<td>Santarelli</td>
<td>Phone</td>
<td>Notes</td>
<td>30 minutes</td>
</tr>
<tr>
<td>4 Sales director</td>
<td>Santarelli</td>
<td>Face-to-face</td>
<td>Tape recorded</td>
<td>40 minutes</td>
</tr>
<tr>
<td>5 Sales manager</td>
<td>Santarelli</td>
<td>Face-to-face</td>
<td>Tape recorded</td>
<td>30 minutes</td>
</tr>
<tr>
<td>6 KAM</td>
<td>Progetto Casa (real estate agency)</td>
<td>Face-to-face</td>
<td>Notes</td>
<td>About 50 minutes</td>
</tr>
<tr>
<td>7 Marketing manager</td>
<td>Santarelli</td>
<td>Phone</td>
<td>Notes</td>
<td>30 minutes</td>
</tr>
<tr>
<td>8 Sales personnel</td>
<td>Santarelli</td>
<td>Phone</td>
<td>Tape recorded</td>
<td>40 minutes</td>
</tr>
<tr>
<td>9 Managing director</td>
<td>Santarelli</td>
<td>Phone</td>
<td>Tape recorded</td>
<td>30 minutes</td>
</tr>
<tr>
<td>1 Marketing manager</td>
<td>Santarelli</td>
<td>Phone</td>
<td>Tape recorded</td>
<td>40 minutes</td>
</tr>
</tbody>
</table>
### Appendix 2: Literature review

**Table 1:** Selected key literature references about sales channel organisation and change

<table>
<thead>
<tr>
<th>Choices in adopting reps or direct sales channel</th>
<th>Conditions and antecedents for structuring distribution/sales organisation</th>
<th>Changing distribution/sales channel arrangements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dishman, 1996</td>
<td>Weiss et al., 1999</td>
<td>Weiss and Anderson, 1992</td>
</tr>
<tr>
<td>- Role of reps in the long-term development of a firm</td>
<td>- Manufacturer’s reputation as a factor that influences the organisation of the sales structure</td>
<td>- Factors that affect the change such as switching costs</td>
</tr>
<tr>
<td>- Difficulties in using reps</td>
<td>- Matching channel design and intermediary selection</td>
<td>- Critical factors for managing change in sales organisation</td>
</tr>
<tr>
<td>Rapp, 2009</td>
<td>Anderson et al., 1997</td>
<td>Chen et al., 2008</td>
</tr>
<tr>
<td>- Factors affecting the choice of outsourcing the sales force</td>
<td>- Role of strategy in configuring the sales channel</td>
<td>- Assessing the impact of channel change</td>
</tr>
<tr>
<td>Ross et al., 2005</td>
<td>Cespedes, 1988</td>
<td>Powers, 1987</td>
</tr>
<tr>
<td>- Cost analysis as to whether to use reps or direct sales force</td>
<td>- Control and resources as key interplaying factors for designing distribution channels; factors shaping channel strategy are introduced</td>
<td>- Sales forecast as a method to reach decision on when to switch from reps to direct salespeople</td>
</tr>
</tbody>
</table>
References

Finding market focus for solution business development

Suvi Nenonen · Kaj Storbacka

Abstract: Firms wanting to move towards solution business models increasingly focus on their customers' value-in-use, and often end up redefining their market around what the solution makes possible for the customer. However, all customers do not accept a value-in-use based approach. Hence, a key determinant of success in solution business relates to a firm’s ability to identify segments and customers that are best suited for solution business, i.e., to find market focus. In this paper we develop a framework that assists firms to choose the right markets to focus on, and illustrate the use of the framework with two action research case studies. The framework consists of a market picture, describing the broad ambit of a market actor, and market arenas within the market picture, selected based on morphological analysis. The case studies illustrate how the framework helped managers to escape the market myopia experienced by firms with established market definitions.

Keywords: Solution Business · Market · Market Definition · Morphological Analysis
Introduction

There are several research streams that investigate solution business from various perspectives: the servitization literature (e.g., Baines et al., 2009; Mathieu, 2001), the solution marketing and sales literature (e.g., Anderson, Narus & Rossum, 2006; Tuli, Kohli, & Bharadwaj, 2007), the solution strategy and management literature (e.g., Brady, Davies & Gann, 2005; Galbraith, 2002), and the operations management oriented product/service systems literature (e.g., Meier, Roy & Seliger, 2010). Using a business model lens, Storbacka et al. (2013) argue that when firms attempt to transition towards solution business, they inherently end up making central business model changes that incorporate many of the suggestions provided by the above research streams into a systemic change process. These changes may be of fundamental nature, such as applying new earnings logics, taking new positions in the value network, and often result in altered business and market definitions.

Solution business aims to identify business opportunities by understanding the customer’s value-creating process and focuses on the co-creation of value (Vargo & Lusch, 2008). Hence, Storbacka et al. (2013) defines solutions as “longitudinal, relational processes that comprise the joint identification and definition of value creation opportunities, the integration and customization of solution elements, the deployment of these elements into the customer’s process, and various forms of customer support during the delivery of the solution”. This approach puts emphasis on value-in-use, instead of value-in-exchange (Vargo & Lusch, 2008). Consequently, as firms wanting to move towards solution business increasingly focus on their customers’ value-in-use, they often end up redefining their market. Firms tend to define their market around what their solution makes possible for the customer, instead of using product-based market definitions. Hence, we see firms move from selling products to selling ‘performance’, or from selling engines to selling ‘power-by-the-hour’.

It has, however, been shown that all customers are not willing to accept a value-in-use based approach (Kowalkowski, 2011). Hence, a key determinant of success in solution business relates to a firm’s ability to find market focus, i.e., identify market segments and customers that are best suited for solution business. However, surprisingly little research addresses the challenges in finding market focus for solution business.

In this paper we assume that firms wanting to transform towards a solution business model will need to make subjective market definitions by identifying the market or network(s) to participate in. This resonates with another stream of research within marketing, namely the need to reconnect marketing to a theory of markets (e.g., Peñaloza & Venkatesh, 2006; Araujo, Finch & Kjellberg, 2010). Kjellberg et al. (2012) conclude that markets are malleable and subject to multiple change efforts. Markets are always in the making, or paraphrasing Vargo and Lusch (2004): markets are not – they become. This opens up questions about how market actors join in and influence this process of becoming in practice.
There is already a body of research discussing market making and shaping. Existing studies discuss the overall process of market scripting (Storbacka & Nenonen 2011) as well as the roles of market practices (Kjellberg & Helgeson, 2006; Andersson, Aspengren & Kjellberg, 2008), performativity (Hall, 2000; Callon, 2007; Hagberg & Kjellberg, 2010), and market objects (Finch & Geiger, 2011) in the market scripting process. Kjellberg et al. (2012, p. 221), however, calls for “a wider perspective on whose activities and which activities make and shape markets”.

This paper addresses the above-identified gaps by generating a better understanding of how firms systematically and purposefully define market focus for their solution business. More precisely, the purpose of the research is: (1) to develop a framework that assists firms wishing to design solution business models to analyse and choose the right markets (or sub-markets) to focus on, and (2) to illustrate the use of the framework with two action research case studies.

The paper is organized as follows. First, we describe the research process. Second, we discuss different perspectives on creating market focus, concentrating on literature on market definitions, market pictures, market segmentation, competitive arenas and morphological analysis. Third, we propose a framework for defining market focus. Fourth, we present two case studies to illustrate the practical implications of the framework. Finally, we discuss the theoretical and managerial conclusions and identify avenues for further research.

**Research process**

We build on the notion brought forward by Reibstein, Day and Wind (2009), who suggest that it is valuable for marketing academics to engage with practitioners who are experimenting with difficult problems. The research process described in this paper continues the qualitative action research tradition that can be labelled ‘clinical research’, as described by Normann (1977) and Schein (1987, 1995).

Action research can be distinguished from other social research forms by active participation and collaboration between the researchers and the organization, the aim for holistic and systemic understanding, a focus on change and goals, the use of multiple types of data gathering methods, and a systematic dialogue between action and reflection (Dickens & Watkins, 1999; Gummesson, 2000; Coughlan & Coghlan, 2002). The key differences between consulting and clinical research are the systematic critical reflection and the more deliberate pursuit of new understanding. Based on the experience gathered from the interventions (e.g., interviews, reporting sessions, workshops, definition and implementation of new practices), the researchers spend time and energy on reflecting on the tensions between the initial framework (i.e., pre-understanding) and empirical reality, between researchers and representatives of the client organization. Reflection is a non-linear, non-sequential, iterative process of systematic combination that aims at matching theory with reality (Dubois & Gadde, 2002). In reflection, the key word is ‘combining’: the aim is to
combine data gathering with data analysis, compare the evolving framework with existing literature-based theory, and match up the evidence and experiences from many simultaneous interventions in order to determine emergent patterns, and sharpen the constructs used to describe reality (Eisenhardt, 1989).

According to Schein (1987, p. 39) clinical research focuses on the dynamics of change and improvement: “it is therefore normative in its orientation and requires underlying theories that provide normative direction - concepts of health, effectiveness, growth, innovation, integration, and the like”. The key intervention tools of a clinician include language, typologies and metaphors development, by which the clinician tries to open new aspects of reasoning and to facilitate change.

The action research process described in this paper was carried out over a period of thirteen months between March 2011 and April 2012, and involved interventions with two major international firms: an investment equipment provider and a financial services provider. The firms were selected to participate in the action research based on four criteria. First, the involved firms had a deliberate aim to develop their solution business. Second, they had expressed their interest in re-defining their markets during the research period. Third, an effort was made to identify firms from differing industrial contexts. Fourth, the selection of the firms was limited by access concerns: market re-definitions are usually considered as being sensitive topics and are thus not freely disclosed to external researchers. Therefore, the research process had to be limited to those firms that were willing to participate in the action research and provide sufficient disclosure.

The narrative in the paper is a combination of findings from the dealings with the practitioners and results from the frequent reflections the researchers engaged in. Due to the sensitivity of the researched issues, we have been forced to protect the case study firms by making the presentations anonymous. This is particularly evident in the description of the firms and in the presentation of some of the end-results of the interventions. Due to the richness of the data, we present the final results of the research, instead of the intermediary results or direct quotes or comments by the case firm representatives.

**Defining markets**

In this section, we discuss extant literature from two perspectives: (1) how firms develop higher level market definitions, and (2) how firms increase the granularity of their market definition.
Higher level market definition: demand view, supply view and network pictures

Somewhat surprisingly, the term ‘market definition’ is not very often used in marketing or management; in fact the term is much more often cited in antitrust literature than in marketing or management literature.

In one of the classic writings in management, Abell and Hammond (1979) argue that although market definition acts as a foundation for business strategy development, it is often neglected. Many companies rely on intuitive, cursory, or incomplete analyses when selecting and defining markets. As a result, businesses are frequently defined by accident rather than purposeful designed. The product-geography matrix has been the most commonly used way for firms to define themselves and their market (Boardman & Vining, 1976). Rothschild (1984) argues against this approach, stating that the product-geography matrices tend to hinder firms from identifying opportunities in the adjacencies.

Abell (1980) proposes that firms should use more dimensions when creating their individual business definitions, and suggests three particular dimensions, including customer groups served, customer functions served and alternative technologies utilized. Buzzell (1978, p. 3), on the other hand, proposes that “there is no single correct way to define the market for a given business unit […] a market not only can but should be defined in several different ways”. This is in line with Day's (1981) view that a firm is not limited to single views of the market; instead firms can benefit from accepting multiple market definitions suitable for particular strategic situations.

The task of defining one’s market can be approached either from the supply-side or the demand-side perspective. Most of the marketing literature has adopted a demand-oriented view, i.e., by taking customers as the focal point of analysis (see, e.g., Shapiro & Bonoma, 1984; Sausen, Tomczak & Herrmann, 2005; Clarke & Freytag 2008). Jenkins and MacDonald (1997) critique this approach by proposing that market definition should be linked to supply-side characteristics, such as capabilities and the nature of the organization. Geroski (1998) concurs with these notions: according to him supply-side market definitions end up in ‘industry’ definitions, which have certain obvious benefits such as the ability to assist in identifying competitors and in helping to develop new technologies. Geroski (1998) also argues that market definitions focused solely on customers are incomplete as markets reflect the supply side as much as they reflect demand side factors. To conclude our review of the market definition literature, we draw on Datta (1996) who argues for integrative viewpoint combining both demand and supply-side characteristics.

Another interesting concept related to the higher level market definition is ‘market pictures’. When discussing the networked markets, one is easily drawn into a discussion on ‘where the network starts and ends’. According to Prenkert and Hallén (2006) business networks are best described from the viewpoint of a single market actor by analysing this actor’s relationships. This approach makes it possible to draw a “delimited and palpable business network” that has a “specific centre and borders in
terms of the network horizon” viewed from the network centre populated by the focal actor (ibid, p. 385).

‘Network pictures’ (Henneberg, Mouzas & Naudé, 2006) is a concept developed in the IMP Group in order to generate and analyse subjective representations of the actors’ networks. Building on this we suggest that market pictures are managers' subjective mental representations of their market. Even though market pictures are subjective, they are also to a certain extent inter-subjectively constructed, i.e., other market actors contribute to and interrelate to them. The market pictures “form the backbone of managers’ understanding of relationships, interactions and interdependencies, and therefore constitute an important component of their individual decision-making processes” (Henneberg et al., 2006, p. 409). Drawing on Henneberg et al. (2006), market pictures usually contain some of the subsequent elements: network boundaries, network centre/periphery, network’s actors/activities/resources, ontological focus, external environment, time/task horizon, actors’ power, and directionality of interactions.

Granularity of market definition: market segmentation, competitive arenas and morphological analysis

In addition to the higher level market definition, authors such as Viguerie, Smit, and Baghai (2008), advocate for increased granularity in describing markets. Viguerie et al. (2008) propose that firms should develop more fine-grained understanding of their markets in order to secure active presence in fast-growing areas (i.e. ‘growth pockets’) where the firm has capabilities to compete effectively.

Within marketing literature, one of the most extensively discussed method of increasing the granularity of market definition is market segmentation. The majority of the industrial market segmentation models, drawing on the heritage of Wind and Cardozo (1974) and Bonoma and Shapiro (1983), are built using a break-down process, starting with the entire macro market and moving down towards more company specific micro information (Clarke, 2009). Some researchers, however, argue for a build-up process starting with information about individual customers (e.g., buying behaviours) and building segments of customers who share certain similarities (Freytag & Clarke, 2001; Clarke, 2009). The availability of customer data and the development of improved analytical techniques make this a suitable process in many industries today.

Both these processes are based on linear thinking aimed at defining a distinct number of customers as belonging to a particular segment. For instance, the idea by Wind and Cardozo (1974) to move from macro-segmentation (i.e., focusing on company-specific characteristics such as size, geography, type of institution, etc.) to micro-segmentation (i.e., focusing on purchase decision criteria, attitudes, perceived importance of supplied product, etc.); or Bonoma and Shapiro’s (1983) nested approach, which proposes movement though a nested hierarchy of segmentation criteria, including demographics (e.g., industry, company size, customer location),
operating variables (e.g., company technology, product/brand use status, customer capabilities), purchasing approaches (e.g., purchasing function, power structure, buyer-seller relationships, purchasing policies, purchasing criteria), situational factors (e.g., urgency of order, product application, size of order), and buyers’ personal characteristics (e.g., character, approach).

Another interesting concept related to bringing more granular view into the market is competitive arenas. The competitive arena construct has been used in the literature with various meanings. Birkinshaw, Hood, and Young (2004, p. 228) describe a competitive arena as “a set of customers, suppliers, competitors and other actors that collectively shape the [firm’s] strategy”. Partridge and Perren (1994) argue that any competitive arena will contain firms that are fighting to satisfy the same customer needs and propose, based on Abell (1980, p. 24) who suggests that competitive arena can be viewed as a “series of overlays of differently defined businesses intersecting with one another but not necessarily congruent with one another”. According to Kay (1990, p. 3), competitive arenas can be viewed as “the smallest area within which it is possible to be a viable competitor”. Rothschild (1984) proposes arena mapping as a tool to understand the competitive environment, while Coman (2008) develops an arena tool to map the business environment. Storbacka and Nenonen (2012, p. 186) define competitive arenas as “potentially overlapping sub-markets subjectively defined by the focal actor” and use competitive arena mapping to facilitate the identification of viable market adjacencies and to enable subjective market definitions.

There are various methods to create market segments or competitive arenas. However, in this research we have searched for an approach that circumvents the most common challenges associated with market segmentation models’ hierarchies of causal and/or quasi-causal relationships, such as the exponential growth in a number of segments with each new variable modelled (Ritchey 2006). In particular, we pursued models that are built on assumptions of non-hierarchical and multi-dimensional connections between variables and enable combining both demand and supply characteristics as well as macro and micro levels.

Morphological methods, which are based on identifying parameter spaces linked by way of logical relationships (e.g., Ritchey, 2006), fulfil all the above-defined criteria for suitable approaches for increasing the granularity of the market definitions. Zwicky (1969) was the pioneer in the morphological analysis (MA), which represents a method for structuring socio-technical systems. Specifically, he used MA for investigating the entirety of relationships contained in multi-dimensional, usually non-quantifiable, complex problems.

MA is first and foremost an ordered way of looking at things (Zwicky 1969). In particular, the MA process involves identifying and defining the most important dimensions relevant to a specific situation or problem. After the relevant dimensions have been identified, each dimension is categorized into possible and relevant categories, values or conditions. Combined, the dimensions and their categories create the parameters that are used to structure the problem. The dimensions are
Finding market focus for solution business development

placed against each other in a multi-dimensional matrix, creating a ‘morphological field’ or ‘morphological box’ (Ritchey, 2006). Each dimension forms a parallel column, and each column contains all possible categories identified within this dimension. Selecting suitable categories from each relevant dimension creates a ‘morphotype’, which is a particular solution alternative to the issue under investigation.

Multiplying the number of categories under each dimension generates the theoretical maximum number of available morphotypes. The resulting number can be very large, thus a key part of MA is to increase the overall understanding of the morphological field and to select only the viable morphotypes for further investigation. The reduction of number of morphotypes to be investigated is mainly done via a cross-consistency assessment that purges out the contradictory and inconsistent morphotypes. The inconsistencies can be (a) logical, i.e. a certain morphotype is not logically possible; (b) empirical, i.e. a certain morphotype is deemed too improbable based on the empirical experience; or (c) normative, i.e. a certain morphotype is not permitted due to e.g. firm’s strategy or values (Ritchey, 2006; Yoon, Phaal & Probert, 2008). In order to execute the cross-consistency analysis, considerable knowledge on the issue at hand, patience and managerial judgment is needed.

Over the years, MA has been used mainly as a problem-solving and idea generation technique (e.g., Higgins, 1996). Recent studies using MA cover vast array of application areas, ranging from virtual organizations (Shankar & Ganesh, 2007), technology road mapping (Yoon et al., 2008), handling of temporal data (Knolmayer & Borean, 2010), to delineating store trade areas (Baray & Cliquet, 2007). In marketing, new product development and innovation (Hsiao & Chou, 2004) and market innovation (Storbacka & Nenonen, 2012) have utilized MA as a method.

A framework for finding market focus

Building on the above literature review, we propose a two-tier framework consisting of the definition of a market picture and selected market arenas (described in Figure 1). A market picture describes the broad ambit of an market actor’s market and answers to questions such as: which other actors belong or should belong to the market actor’s network, what kind of relationships does the market actor have with them, in which line of business the market actor is, what are the main capabilities needed, and what are the main technologies utilized. Market pictures are subjective: each market actor can draw their own market picture. Market pictures should also be inter-subjective within the market actor’s organization: the overall notions of the market picture should be shared among the persons working in the same organization. However, market pictures are not necessarily entirely clearly defined in terms of market boundaries due to the fact that drawing crystal-clear and permanent boundaries to subjectively defined and constantly changing markets can be difficult.

Market arena is a development of the competitive arena idea, but puts emphasis on value creation instead of competition. The aim of strategy is not ‘winning’ a zero-
sum game, defined as a product market. Nor should the focus be on ‘competing’, but rather on how the firm can engage in co-creation of value with customers, suppliers and partners in order to improve the performance for several actors at the same time (Storbacka & Nenonen, 2011). Whereas competitive strategy builds barriers, value-creating strategy builds a deep understanding of the ecosystem in which a firm chooses to operate and how the firm can co-create value with other organizations in the ecosystem.

In this paper, we define market arenas as logically viable morphotypes that reside within a market actor’s market picture and are selected by the market actor. Market arenas complement the market definition outlined by the market actor’s market picture by describing more clearly those areas in which the market actor either has or aims to have operations. Market arenas are subjectively defined by the market actor and they bring granularity into the overall market definition. Market arenas answer to questions such as: who are the relevant customers for the market actor, how should the offering be configured, and who are the market actor’s main competitors. We propose that the market arenas are to be defined through non-hierarchical, non-causal and multi-dimensional morphological analysis as the traditional hierarchical and causal or quasi-causal market segmentation methods can be difficult to operationalize especially when the market actor seeks to re-configure its market into a new, and currently to a certain extent unknown, configuration.

**Fig. 1: Market focus framework**

In the context of market re-definitions, the market pictures should enable sufficient flexibility for the market actor to find new market adjacencies and to accommodate for the plasticity of the evolving market configuration (Kjellberg et al., 2012). The market arenas are needed as the market pictures often provide insufficient guidelines for marketers to conduct effective and efficient market shaping in practice by e.g. actively
influencing or creating market practices, altering the market object, or by acquiring new actors into the network.

**Market focus in practice**

In this section we illustrate the proposed framework with two action research case studies: Alpha, a firm offering investment equipment solutions, and Beta, a firm offering financial services solutions.

**Alpha: re-configuring the market towards integrated solutions**

Alpha is a global firm having operations in over 150 countries and generating an annual turnover of several billion dollars. One of Alpha’s main business areas (from this point onwards called Alpha) is focused on a specific industry, to which Alpha provides sophisticated investment equipment, services and solutions. Even though Alpha has been successful both in terms of growth and profitability, in late 2010 Alpha made a conscious decision to take a more proactive role in re-defining their relevant solution business market. The objective of the definition was to develop the market towards more integrated solutions, which would enable Alpha take a more strategic role towards their main customers, and to design and deliver even more energy-efficient and environmentally friendly solutions.

The market picture part of Alpha’s market definition was envisioned in late 2010, before the actual action research period started. The term ‘lifecycle solutions’ was chosen to describe the new market picture, as Alpha felt that this term communicated effectively both internally and externally their ideas about the ‘new’ market. The new market picture necessitated some minor development steps in Alpha’s capabilities and technologies, but the most considerable changes compared to the current state were detected in Alpha’s network. The new ‘lifecycle solutions’ market picture required Alpha to create entirely new relationships and to change their existing ones. Interestingly, Alpha initiated considerable internal and external marketing campaigns already at this stage of their market re-definition process in order to start educating both their employees and external partners about their new market picture and its benefits to the entire industry.

In order to operationalize the ‘lifecycle solutions’ market picture, Alpha formed a specialist task force of five persons to identify, assess and to prioritize Alpha’s lifecycle solutions market arenas. Over a period of seven months, six task force meetings were organized.

In the beginning of the process, the task force utilized a morphological analysis to create a morphological field representing Alpha’s lifecycle solutions market picture. Alpha’s morphological field is depicted in Figure 2.
Theoretically, it would be possible to generate 7,365,600,000 different morphotypes from Alpha’s lifecycle solutions morphological field. Therefore, the next step was to conduct the cross-consistency assessment and to identify viable market. After the cross-consistency analysis, the task force selected 27 market arenas for further analysis. During the analysis phase, data was collected for each market arena on their size, growth rate, profitability, Alpha’s current business volume, Alpha’s future business potential, strategic importance to Alpha, competitors’ competitive strength, Alpha’s competitive strength, and the existence of certain market practices.

**Fig. 2: Alpha’s lifecycle solutions morphological field**

<table>
<thead>
<tr>
<th>Categories</th>
<th>Customer industry</th>
<th>Customer type</th>
<th>Customer’s business model</th>
<th>Customer’s revenue / profit philosophy</th>
<th>Application type</th>
<th>Physical activities</th>
<th>Customer’s decision making</th>
<th>Customer’s improvement areas</th>
<th>Customer’s DNA</th>
<th>Need for equipment ordering</th>
<th>Contracting attitude</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>CI1</td>
<td>Private company</td>
<td>BM1</td>
<td>RPP1</td>
<td>A1</td>
<td>Area1</td>
<td>Global</td>
<td>IA1</td>
<td>Novel technologies</td>
<td>Major within a year</td>
<td>Fixed price</td>
</tr>
<tr>
<td>2</td>
<td>CI2</td>
<td>Public listed company</td>
<td>BM2</td>
<td>RPP2</td>
<td>A2</td>
<td>Area2</td>
<td>Norway</td>
<td>IA2</td>
<td>New business models</td>
<td>Major within 5 years</td>
<td>Benefit sharing</td>
</tr>
<tr>
<td>3</td>
<td>CI3</td>
<td>Government owned company</td>
<td>BM3</td>
<td>RPP3</td>
<td>A3</td>
<td>Area3</td>
<td>Germany</td>
<td>IA3</td>
<td>New entrant</td>
<td>Minor within 5 years</td>
<td>Strict tendering process</td>
</tr>
<tr>
<td>4</td>
<td>CI4</td>
<td>Fund</td>
<td>BM4</td>
<td>RPP4</td>
<td>A4</td>
<td>Area4</td>
<td>Greece</td>
<td>IA4</td>
<td>Minor within a year</td>
<td>Minor within 5 years</td>
<td>Benefit sharing</td>
</tr>
<tr>
<td>5</td>
<td>CI5</td>
<td></td>
<td>RPP5</td>
<td>A5</td>
<td>Area5</td>
<td>Rest of Europe</td>
<td>IA5</td>
<td>No needs identified</td>
<td>Risk / reward</td>
<td>Benefit sharing</td>
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<td>6</td>
<td>CI6</td>
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<td>A6</td>
<td>Area6</td>
<td>North America</td>
<td>IA6</td>
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<td>7</td>
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<td>11</td>
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<td>Russia</td>
<td>IA20</td>
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After the needed data was collected, the task force members convened into a task force meeting together with five additional experts within Alpha and prioritized the market arenas from various viewpoints such as competitive intensity, arena attractiveness and market development degree. Based on these managerial prioritizations, the 27 market arenas were placed into three market portfolios: (1) “quick wins” that enabled Alpha to leverage its existing strengths and relationships, (2) “2015 business” that ensures growth for Alpha in 3-4 years’ time, and (3) “future projects” that are true future market arenas with little or no current business.

For each of the identified 27 market arenas, Alpha also created arena-specific market plans. In these plans Alpha described its target state for the market arena, identified the main actors in the arena, and listed the main actions it plans to conduct in order to proactively drive the market arena into a direction that is compatible with their overall market picture.
Alpha has been conducting the activities aimed at re-defining the market for seven months and for the majority of these activities it is too soon to tell how effective Alpha has been. However, the top executives of Alpha are very satisfied with the new market definition and proclaim that they ‘will execute a similar process to create a common market view every time they seek to shape existing or enter new markets in the future’.

**Beta: re-configuring the market from price driven to solutions and value driven**

Beta is an international financial services provider with over 1,000 branches and total assets of over 500 billion dollars. One of Beta’s business areas focuses on asset-based finance and sales finance. Regardless of the turmoil that has impacted the financial markets ever since 2008, Beta has been a growing and profitable firm; characteristics that are also shared by its asset and sales finance division. In 2011 Beta decided to start driving the asset and sales finance market away from the margin (i.e., price) focus towards a solution and customer value creation focus. The main objectives behind the market re-definition initiative were the aim to stop the commoditization of the asset and sales finance market and to ensure Beta’s financial strength also during the coming years of increased financial regulations (e.g. Basel III).

The market picture for Beta’s asset and sales finance unit (from this point onwards called Beta) was created in mid-2011 during Beta’s strategy process. The renewed market picture was named ‘asset and sales finance solutions’. Judging by the mere words, the change from the previous market picture ‘asset and sales finance’ was not a major one, but the one new word brought with it considerable changes to Beta. The overall network of Beta expanded significantly as Beta had to identify and acquire external partners that could help it to deliver value-added solutions. Technologically the transition towards integrated solutions posed considerable development needs for Beta’s IT systems, and the overall capabilities related to solution business (e.g. value quantification & communication, solution delivery industrialization) had to be improved dramatically.

In order to create a clearer view of the ‘asset and sales finance solutions’ market picture, Beta gathered a task force of eight internal specialist to identify, assess and to prioritize Beta’s solution market arenas. Over a period of four months, five task force meetings were organized.

In the beginning of the process, the task force utilized a morphological analysis to create a morphological field representing Beta’s solution market picture. Beta’s morphological field is depicted in Figure 3.

It is possible to compute 1,998,323,712 different morphotypes from Beta’s asset and sales finance solutions morphological field. Thus, after the morphological field was created, the task force focused on the cross-consistency analysis, leading to 24 market arenas to be analysed. For each of the analysed market arenas, Beta collected information regarding the arena’s size and growth, typical assets to be financed, main trends affecting the arena, customers’ readiness to move from individual products to
At the present, the action research period with Beta is still ongoing and during the next two months Beta will prioritize the identified market arenas and create market reconfiguration plans for the most influential market arenas. Therefore it is still too early to tell what kind of impacts the renewed market definition has had within Beta. Nevertheless, the process so far has already generated a profound change in Beta’s mindset: today the vast majority of Beta’s top executives believe that they actually can proactively influence how their markets develop. In early 2011 such mindset was limited to only a handful of Beta’s executives.

**Discussion**

In this section we summarize the empirical analysis, discuss the theoretical contributions of the research process, identify further research avenues and point to some important managerial implications.

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integrated solutions, main influencers in the arena, main competitors in the arena, Beta’s business potential in the arena, Beta’s competitive position in the arena, Beta’s current top customers in the arena, and Beta’s strengths and weaknesses in the arena.

**Fig. 3: Beta’s asset and sales finance solutions morphological field**

<table>
<thead>
<tr>
<th>Categories</th>
<th>Area of operations</th>
<th>Customer need</th>
<th>Customer’s contracting attitude</th>
<th>Customer industry</th>
<th>Customer’s position in the value chain</th>
<th>Size of the customer</th>
<th>Type of asset to be financed</th>
<th>Basic Beta’s products</th>
<th>Ticket size of a single deal</th>
<th>Sales channel</th>
<th>Third party suppliers</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Country 1</td>
<td>N1</td>
<td>Profit sharing</td>
<td>Public sector</td>
<td>Producing</td>
<td>Very large</td>
<td>A1</td>
<td>P1</td>
<td>Large</td>
<td>Indirect</td>
<td>S1</td>
</tr>
<tr>
<td>2</td>
<td>Country 2</td>
<td>N2</td>
<td>Risk sharing</td>
<td>Car</td>
<td>Importing</td>
<td>Large</td>
<td>A2</td>
<td>P2</td>
<td>Medium</td>
<td>Via main partner</td>
<td>S2</td>
</tr>
<tr>
<td>3</td>
<td>Country 3</td>
<td>N3</td>
<td>Focus on cost</td>
<td>ICT</td>
<td>Wholesale</td>
<td>Medium</td>
<td>A3</td>
<td>P3</td>
<td>Small</td>
<td>Own sales force</td>
<td>S3</td>
</tr>
<tr>
<td>4</td>
<td>Country 4</td>
<td>N4</td>
<td>Remuneration / bonus</td>
<td>Food &amp; beverage</td>
<td>Retail</td>
<td>Small</td>
<td>A4</td>
<td>P4</td>
<td>S4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Country 5</td>
<td>N5</td>
<td>From CAPEX to OPEX</td>
<td>Leisure</td>
<td></td>
<td>A5</td>
<td>P5</td>
<td></td>
<td>S5</td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Country 6</td>
<td>N6</td>
<td>Strict tendering process</td>
<td>Machinery</td>
<td></td>
<td>A6</td>
<td>P6</td>
<td></td>
<td>S6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Country 7</td>
<td>N7</td>
<td>Short-term contracts</td>
<td>Construction &amp; mining</td>
<td></td>
<td>A7</td>
<td>P7</td>
<td></td>
<td>S7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Country 8</td>
<td>N8</td>
<td>Long-term contracts</td>
<td>Forest</td>
<td></td>
<td>A8</td>
<td>P8</td>
<td></td>
<td>S8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>Country 9</td>
<td>N9</td>
<td>Energy &amp; oil</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>S9</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>Common</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>S10</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>Outside current operations</td>
<td>N14</td>
<td>... (5 additional industries)</td>
<td>Agriculture</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>S11</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

At the present, the action research period with Beta is still ongoing and during the next two months Beta will prioritize the identified market arenas and create market reconfiguration plans for the most influential market arenas. Therefore it is still too early to tell what kind of impacts the renewed market definition has had within Beta. Nevertheless, the process so far has already generated a profound change in Beta’s mindset: today the vast majority of Beta’s top executives believe that they actually can proactively influence how their markets develop. In early 2011 such mindset was limited to only a handful of Beta’s executives.
Summary of findings from the empirical studies

When comparing the two case study firms and their business contexts, it is easy to detect several similarities between Alpha and Beta: both firms are established players with very long track records in their respective industries, both are market leaders in their selected geographical or application areas, both are multinational firms, both are independent business divisions within large multi-division corporations, both are financially sound, and neither of them is operating under entrepreneurial or visionary leadership. However, there are also some notable differences between the case study firms: the firms represent different industries, and Alpha is a pure-B2B player with truly global reach whereas Beta is a regional player who serves both B2B and B2C customers.

The framework illustrated in Figure 1 was created through interplay between the literature review and the findings of the action research processes with Alpha and Beta. During the action research process we sought to identify ‘reflective practitioners' (Schön, 1983) from both organizations who expressed interest and ability in contributing to the development of the market focus framework. The feedback regarding the process that the practitioners provided can be viewed as a process of ‘member checks', which increased trustworthiness of the results (Wallendorf & Belk, 1989; Lincoln & Guba, 1985). The comments given by these reflective practitioners can be categorized into three main groups. First, the reflective practitioners considered that the analytical approach with “the creative twist brought by the morphological analysis” to creating the market definition was compatible with their organizations' processes and culture. Second, they thought that both parts of the market focus framework are needed: the market picture alone is not concrete enough to guide the market re-configuration activities in practice, but without an explicit new market picture for market re-configuration it would be very difficult to identify market arenas - or the identified market arenas would remain too close to the previous, often implicit, market picture to enable effective market re-configuration. Third, the reflective practitioners both from Alpha and Beta felt that the market pictures were created somewhat intuitively, at least compared to the rigor applied in identifying the market arenas. Thus, they suggested that they could have benefited from a more structured approach to arriving at the market picture as well.

Theoretical contributions

Our work responds to calls for providing specific guidelines and tools to improve firms’ capabilities to co-create complex business solutions (Marketing Science Institute, 2010), and calls for a wider perspective on the activities that make and shape markets (Kjellberg et al., 2012).

This paper contributes both to the solution business literature and to the literature on markets and marketing. First, our research increases awareness of market definitions as a key determinant of success in solutions business. The importance of market re-definitions has been discussed earlier by Storbacka (2011) and Storbacka et
al. (2013), but in this paper we develop a framework that support firms to define markets or sub-markets that are likely to be favourable for the solution approach.

Second, we provide a new language and concepts for defining, describing and discussing markets, which sheds additional light on how market actors perceive their markets and identify market re-definition opportunities. Specifically, our research contributes to the literature about network pictures (Henneberg et al., 2006). Market pictures can be viewed as an extension of the previous research and in combination with the market arenas this way of reasoning becomes considerably more managerially applicable.

Third, we demonstrate how market actors – as they abandon the idea of objective, given markets – realize that the objective of the firm is not to learn ‘about the market’. Instead, actors wanting to influence the becoming of markets are more likely to focus on learning ‘with the market’. Market actors seeking to re-define their markets benefit from adaptive learning processes and the ability to involve also other actors in creating new interpretations of the market. This resonates with Day’s (2011) view on the need for new marketing capabilities, and adds to our understanding of marketing’s boundary spanning (Hult, 2011) role as a driver of markets or a creator of value creating opportunities, rather than as an interpreter of market trends or an identifier of market opportunities as precursor to strategy.

Finally, our research illustrates how morphological analysis can be used for increasing the granularity of the market definition in a novel way that differs from the established market segmentation methods by its non-hierarchical, non-causal and multi-dimensional approach to finding market arenas. Further, we provide empirical illustrations from two firms that have applied the method in a solution business context. Market arena mapping is shown to allow firms to identify and investigate a large set of possible market arena configurations, thus enabling a systematic and purposeful design of where to compete in the context of a value creation network.

Further research avenues

As the present research is exploratory in nature, it leaves various areas in a need for further research. First, more comprehensive empirical research in a variety of different industrial contexts is needed to support the conclusions from the case research illustrated in this paper and to further develop the proposed market focus framework. It would be especially important to involve firms that are not market leaders in order to better understand how various actors can influence the becoming of markets. Fligstein (2001), for instance, argues that market actors have different habitus (Bourdieu 1977), and some ‘skilled actors’ manage to stabilize certain networks by getting others to agree with their definition of a market.

Second, a particularly interesting avenue for further research relates to the possible rigidity or inertia of markets. Sull (1999) argues that there is ‘active inertia’, which makes it difficult even for very successful firms to break established conceptions
in markets. Inertia has been found to have cultural (Fligstein, 2001), industry recipe (Spender, 1989), cognitive (Levinthal and March, 1993; Prahalad, 2004), and industry clockspeed (Fines, 1998) connotations.

Third, more research is needed on the actual process of discussing and defining both market pictures and market arenas. The empirical data described in this paper covers only a short time period. A longitudinal study, analysing the impact of market shaping activities over time, would provide better starting points for more normative and managerially relevant conclusions. It would also make it possible to further delineate and operationalize market learning processes. Market learning is likely to be different in various industries and market situations. Therefore, such studies should cover different contexts and, for instance, compare firms operating in established, mature markets with firms in emerging and dynamic markets.

Managerial implications

Based on the research, we argue that it is likely that firms moving towards solution business models are faced with the challenge of re-defining their market. A key question to consider is whether the market is ready to buy solutions, and to what extent solutions even expected. A high level of readiness means the solution market is relatively mature with several firms providing solutions and with customers who are willing and able to buy them, and that solution business has become a norm that is both understood and measured.

In many cases market readiness is low and firms are faced with the need to engage in market shaping activities. Managerially, the proposed framework seems to be an effective way to escape the market myopia experienced by many firms with established market definitions. As with all human activity, also markets are artefacts, fabricated by the human mind. There is no objective market - all actors in the market can and should have their own view on the market. Firms may need to adopt a more pro-active stance towards markets - markets can be designed. It is not only a question of identifying opportunities in the market and adapting to them, but also a question of engaging in market shaping activities in order to increase market readiness and to fabricate market conditions that work in the firm's favor.

The morphological analysis introduced in the paper can be viewed as a tool that can help firms to envision new market arenas that might not emerge from other market analysis approaches. However, the effective and efficient use of the morphological analysis requires a great deal of managerial judgment when reducing the number of potential morphotypes. Thus, paraphrasing Ritchey (2006), morphological analysis should not be attempted without strong experienced facilitation, an engaged group of subject specialists, and a good deal of patience.
References


Developing industrial solution offerings: a framework and management guidelines

Olli Pekkarinen · Risto T. Salminen

Abstract: An offering describes the elements through which a company can provide value for its customers. In the present study, we focus on an industrial solution provider’s offering and its formulation by reviewing the solution business, services marketing, and project business literature, as well as conducting a case study. Based on our results, we propose a dynamic industrial solution offering (DISO) with two special characteristics that comprise dynamism and completeness. Furthermore, we propose a framework for DISO that contains three components that comprise relational, financial, and performance. We also present evidence for a new service category within industrial solution business: services supporting mutual action. An industrial solution business addresses collaboration with customers, and we regard this aspect as an element in the dynamic industrial solution offering. Finally, we found three main managerial issues to help build solution mindset that comprise collaboration with customers, organization-wide customer orientation, and effective service-driven organization.

Keywords: Industrial solution · Offering · Solution business · Manufacturing industry · Case study
Introduction

Manufacturing industry has changed its business model dramatically in the 21st century. In the current market, manufacturers are driven to provide more comprehensive offerings, meaning the elements through which a company can provide value for its customers, which go beyond the traditional goods with throw in services thinking (Ulaga and Reinartz 2011). In a nutshell, this is often achieved by providing capacity and availability instead of fixed priced machinery. This type of business is often termed the provision of solutions, whereby goods and services are uniquely bundled to address a particular customer need (e.g., Sawhney 2006). We define these business-to-business manufacturers as industrial companies; thus excluding, for example, financial companies.

From incidental merchandise, services have become the core of industrial companies’ offerings with long lasting service agreements over the life-cycles of their goods. This change is driven both by the need for providers to grow and gain competitive advantage and by increased customer demand that is caused by customers’ sourcing strategies (Agndal et al. 2007), as well as outsourcing trends and core business focuses. The three key drivers for industrial companies’ service strategies are outsourcing trends, saturation of the installed base, and commoditization in goods markets (e.g., Reinentz and Ulaga 2008). Thus, industrial companies are focusing their efforts on providing bundled offerings of goods and services, described as different types of solution (e.g., Brady et al. 2005), which are delivered through relational processes with customers (Tuli et al. 2007), by using solution-driven business models (Storbacka 2011). In the management of marketing activities, this can be regarded as closer customer relationships (Penttinen and Palmer 2007), service-dominant logic (Vargo and Lusch 2008), and collaboration in solving customers’ problems (Cova and Salle 2008).

Although industrial companies acknowledge the importance of services, they struggle with the management of their solution offerings. Gaining profit by delivering complex solutions has proved to be quite a challenge (Tuli et al. 2007). Thus, reconstructing an offering when adopting a solution provider strategy can be problematic. The mindset of employees might be focused on specifications of their goods and price margins with almost zero customer collaboration in the development of new features (e.g., Cornet et al. 2000). Product managers focus on long maintenance intervals while service managers try to sell regular maintenance, which delivers mixed signals to customers. In addition to the sales personnel, the whole organization needs to understand the new, more service-based, business model and have a common mindset to enable coherent collaboration with customers (Ryynän nen et al. 2012). In addition to their mindsets, solution providers are struggling to find a balance between unique offerings to changing customer needs (e.g., Prahalad and Ramaswamy 2004) and more standardized service operations. It seems to be challenging to construct a solution offering in a manner that supports the core business instead of being a burden. Several authors (e.g., Lefaix-Durand and Kozak 2010; Neely 2009) have pointed out the insufficient understanding on customer
Developing industrial solution offerings

To understand customers’ needs and values, solution providers need to engage in close relationships with their customers. Tuli et al. (2007) regard solutions as relational processes between suppliers and customers. The solution-based business model (Storbacka 2011) changes a firm’s offering from one based on selling goods with particular specifications to providing solutions that include several service elements which are co-created with customers. Industrial companies need to learn how to combine various elements into routines and methods of operation in the form of solution offerings (Davies et al. 2007). However, despite the growing literature base on business-to-business services and services in the context of solution business, Ulaga and Reinartz (2011) acknowledge a need for better categorization of services from a business perspective. Wikner and Andersson (2004) offer a more traditional conceptualization for a solution offering by including the elements of goods, services, and price versus benefits and sacrifices. Brax and Jonsson (2009) divided the solution offering structure into four components that comprise installed base, solution system platform, information offerings, and service components, which then are adapted and applied in customer specific conditions as a bundle or a customer solution. However, more context specific solution frameworks are called for (e.g., Nordin and Kowalkowski 2010), therefore, we argue that there is a gap for comprehensive conceptualization of a solution offering that includes different elements beyond traditional goods/services, especially in the context of industrial companies.

We focus on an examination of the development and role of various elements in an industrial solution provider’s offering, henceforth termed industrial solution offering, by addressing the following research questions: 1) What are the special characteristics of an industrial solution offering?; 2) What types of element should be included in an industrial solution offering?; 3) How should an industrial solution offering be managed? The results contribute to the solution offering literature (e.g., Brax and Jonsson 2009; Nordin and Kowalkowski 2010) by identifying industrial companies’ solution offering elements. By introducing categorized building blocks, our study will also help industrial managers to build value-adding customer-oriented industrial solution offerings. The study begins with an introduction to the relevant literature on the topics of solution business and the concept of offering in Chapters 2 and 3 respectively. Chapter 4 clarifies the research design issues. Our empirical case evidence and derived findings are presented in Chapter 5. Finally, Chapter 6 delivers answers to the research questions, and proposes avenues for future research.

Solution business and industrial companies – industrial solutions

Service-dominant logic (Vargo and Lusch 2004) has challenged traditional goods-dominant logic in the marketing literature with close cooperation relationships between supplier and customer (Lusch and Vargo 2006). This has led manufacturing companies to transform from goods to solution business, which has recently received increasing academic interest (Brax and Jonsson 2009; Davies et al. 2006; Jacob and
Ulaga 2008; Kindström et al. 2012; Salonen 2011). The extant literature contains several overlapping concepts that are employed to describe solution oriented business. These include integrated solutions (Brady et al. 2005), customer solutions (Tuli et al. 2007), value added solutions (Matthyssens and Vandenbempt 2008), servitization of manufacturing (Baines et al. 2009), product-service systems (Meier et al. 2010), performance based contracting (Hypko et al. 2010), and hybrid offerings (Ulaga and Reinartz 2011). The definition of a solution often includes customization and integration of goods and services to address a customer’s business needs (e.g., Sawhney 2006).

In solution business, companies should focus on their customers’ businesses by identifying their customers’ latent needs (Matthing et al. 2004). Customers’ sourcing of services has evolved to be more value-focused (Agndal et al. 2007). However, customers tend to have a different perception of value than suppliers (Lefaix-Durand and Kozak 2010). Furthermore, Tuli et al. (2007) acknowledge a disparity between the perceptions of both parties, and suggests that suppliers do not understand to the required degree their customers’ business environments. Based on their findings, Tuli et al. (2007) propose a four phase relational solution process model: 1) customer requirements definition; 2) customization and integration of goods and/or services; 3) their deployment; 4) post deployment customer support. The model has been tested (Naudé et al. 2009) with the importance of relational aspects found to be accurate. Payne et al.(2008) define the relational processes as encounters which must aim to help a customer utilize better both its own and its supplier’s resources. By understanding the relational nature of solutions, suppliers are able to deliver more effective solutions at profitable prices (Tuli et al. 2007). Through collaboration, a key characteristic in solution business, both supplier and customer co-create the solution and, thus, the customer value. Furthermore, solutions often provide cash flow over a long period of time due to fixed service agreements. In sum, we employ in our study the concept of industrial solutions that we define as follows: An industrial solution is an ongoing relational process to satisfy a customer’s particular business or operational requirements.

The concept of offering in the solution business context

Ulaga and Reinartz (2011) argue that services need to be better categorized from a business perspective. Services are taking the leading role in creating customer perceived value, but there are only a few studies that examine which types of service are included in industrial solutions. There is evidence that services form the most important aspect of solutions as companies outsource production and the largest proportion of in-house activity is shifting towards service components (Davies et al. 2007). With this in mind, our focus is mainly on the service aspects of industrial solutions. In the following, we first draw from several literature streams to map the concept of offering in general, and then identify relevant elements for an industrial solution offering.
Offering concept

An offering comprises the elements through which a company can provide value for its customers. Examination of the various definitions for the concept of offering indicates that most authors agree on the obvious role of goods and services in an offering. However, depending on the context, there are a number of opinions regarding other elements of an offering that authors have suggested, such as technology, information, capabilities, financial elements, quality, benefits and sacrifices, risk sharing, and even brand image, to be included in an offering (see Table 1).

Table 1: Different concepts of an offering gathered from the literature

<table>
<thead>
<tr>
<th>Offering elements</th>
<th>Context</th>
<th>Authors</th>
</tr>
</thead>
<tbody>
<tr>
<td>Core, facilitating, supporting services surrounded by the service concept,</td>
<td>Service business. Augmented service offering (ASO), the role of</td>
<td>(Grönroos 1987, 2000)</td>
</tr>
<tr>
<td>interactions, and consumer participations</td>
<td>technology, service marketing</td>
<td></td>
</tr>
<tr>
<td>Goods, services, risk sharing and risk taking, access to or usage of systems or</td>
<td>Consumer business. Risk aspects</td>
<td>(Normann and Ramirez 1993)</td>
</tr>
<tr>
<td>infrastructure, and information</td>
<td>Project marketing, creative offering with proactive anticipation</td>
<td>(Cova et al. 1994)</td>
</tr>
<tr>
<td>Technological, legal/financial, and socio-political offering</td>
<td>Partnering</td>
<td>(MacKenzie and Hardy 1996)</td>
</tr>
<tr>
<td>Product quality, salesperson, service and price</td>
<td>Market offering. To add value or reduce cost</td>
<td>(Anderson and Narus 1999)</td>
</tr>
<tr>
<td>Goods, services, programs, or systems</td>
<td>Customer value proposition</td>
<td>(Kaplan and Norton 2000)</td>
</tr>
<tr>
<td>Goods/service attributes, relationship, and image</td>
<td>E-business</td>
<td>(Amit and Zott 2001)</td>
</tr>
<tr>
<td>Goods/services, information, resources, and capabilities</td>
<td>Definition of project offer</td>
<td>(Cova et al. 2002)</td>
</tr>
<tr>
<td>Technical components, service elements, and financial components plus specifications</td>
<td>Definition of project offer</td>
<td>(Cova et al. 2002)</td>
</tr>
<tr>
<td>and flexibility</td>
<td>E-business</td>
<td>(Hedman and Kalling 2002)</td>
</tr>
<tr>
<td>Goods, service, price/cost</td>
<td>Business-to-business</td>
<td>(Ford et al. 2002)</td>
</tr>
<tr>
<td>Advice, goods, service, logistics, and adaptation</td>
<td>Integrated solutions</td>
<td>(Wikner and Andersson 2004)</td>
</tr>
<tr>
<td>Goods, services, price vs. benefits and sacrifices</td>
<td>Integrated solution, manufacturing industry</td>
<td>(Brax and Jonsson 2009)</td>
</tr>
<tr>
<td>Installed base, solution system platform, information offerings, and service</td>
<td>Hybrid offerings in business markets</td>
<td>(Shankar et al. 2009; Ulaga and Reinartz</td>
</tr>
<tr>
<td>components</td>
<td></td>
<td>2011)</td>
</tr>
<tr>
<td>Industrial goods and services combined into innovative bundles</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Customization, integration, range, bundle, proactive/reactive, vertical/horizontal</td>
<td>Characteristics of solutions, the literature review</td>
<td>(Nordin and Kowalkowski 2010)</td>
</tr>
<tr>
<td>and goods/business/partnership</td>
<td></td>
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Offering in industrial solution business

The development and management of industrial solution offerings creates challenges for traditional industrial suppliers for three main reasons. First, suppliers are accustomed to tendering for customers’ contracts within strict specifications. Frequently, this only leads to price competition between capable suppliers without determining the most valuable approach to satisfying a customer’s need. Second, suppliers are not accustomed to adapting their offerings to create new solutions for customers. A supplier organization often has strictly defined internal roles, and collaboration between departments is not necessarily at a level capable of providing customized solutions (Ryynänen et al. 2012). Third, suppliers are not accustomed to collaborating with their customers at the level required to co-create something totally unique – an industrial solution (e.g., Tuli et al. 2007). Penttinen and Palmer (2007) suggest that, as companies are moving from basic offerings to more complex solutions, the form of buyer-seller interaction also changes from transactional to a relational relationship.

A supplier has to understand various customer value components when improving its offerings (Klanac 2013). Customer value has been categorized as having three value-drivers that comprise product-based, service-based, and relationship-based value (Eggert et al. 2006; Lapierre 2000). Hence, an industrial solution offering should communicate value for the customer through each of these components. Industrial solutions are often based mainly on specific technology/ies and, traditionally, the role of goods has been significant. However, while the goods are often a necessity, they rarely form the key competitive advantage. Ford et al. (2002, p.122) state that goods have no intrinsic value but are only a solution to a problem. It is the variety of services that differentiates business-to-business offerings (e.g., Ford et al. 2002; Stremersch et al. 2001).

Mainly due to their intangible nature, it is difficult to universally classify services. Boyt and Harvey (1997, p.294) noted the existence of many studies that attempt to classify services; however, “classification of industrial services has not received the same level of attention as has the categorization of consumer services.” Although this notion is somewhat aged, the situation has remained the same (Ulaga and Reinartz 2011). In project business, there are numerous types of service implemented in various phases of a project life-cycle (Artto et al. 2008) that also apply to solutions. Artto et al. (2008) characterize project business services into before, during, or after delivery, according to the phase in which the service is employed. Van der Valk (2008) identifies four types of service on the basis of how the services are employed by a customer that comprise consumption, instrumental, semi-manufactured, and component services. These classifications are not built on the extensive relationship perspective but on goods-centric logic. However, Boyt and Harvey (1997) classify industrial services in three categories according to the extent of buyer-seller interaction. These categories are elementary service (e.g., telephone service), intermediate service (e.g., repair services), and intricate services (e.g., consulting). Although this classification includes the buyer-seller interaction, the complexity of solution business requires a more extensive relationship perspective.
Ulaga and Reinartz (2011) classified industrial services for hybrid offerings by employing two dimensions: service recipient (good or process) and the nature of value proposition (input- or output-based). They recognized four types of service: Product life-cycle services (PLS), Process support services (PSS), Asset efficiency services (AES), and Process delegation services (PDS). PLSs and PSSs are individually performed services while AES and PDS are combinations of different service elements (Ulaga and Reinartz 2011). For this reason, we are interested in the PLS and PSS categories. Oriented to the supplier’s goods, PLS refers to services that help a customer to operate and maintain the supplier’s machinery. Conversely, PSS orients to the customer’s process by helping customers improve their business processes. Again, being relatively close to solution marketing, we reviewed also project marketing literature. Mathieu (2001) introduced two service categories within project business: service supporting the supplier’s product (SSP) and service supporting the client’s action in relation to the supplier’s product (SSC). All of these categories concern the supplier and customer. However, complex industrial solution business involves often a network of actors. For this reason, Cova and Salle (2008) introduced an offering element termed services supporting the customer network action (SSCN). This category is less coherent and often polymorphous in nature. However, in networked offerings the supplier might need to provide services to third parties which justify the existence of SCCN.

The elements of goods- and service-based customer value have been discussed above. We also touched upon the third value-driver category: relationship-based value. When marketing full-service offerings, the two most important attributes for the buyer are total costs and performance (Stremersch et al. 2001). Customers are interested in, for example, how productive the solution is going to be – in process industries, customers usually demand a set of different test periods before the actual guarantee period commences. Although the solution might well surpass the customer’s expectations, there is always a risk that something does not go as planned. Normann and Ramirez (1993) have included risk sharing and risk taking as a part of their offering concept. In complex environments such as project or solution business, risks are “inherent to any offering” (Normann 2001). While the management of risks is essential in project business, it also needs to be involved in an industrial solution offering.

Finally, the extent of a solution business offering is found to vary depending on the customer (e.g., Penttinen and Palmer 2007). This can be described as the continuum of completeness of an offering (Penttinen and Palmer 2007), whereby completeness is a concept to describe the extent to which a customer’s problems/process are solved/control by the solution provider. Penttinen and Palmer (2007) also noted a continuum in the supplier-customer interactions from transactional to relational. In addition, it is worth mentioning that the needs of customers often evolve over time (see e.g., Burns et al. 2010)
Developing industrial solution offerings

Although solution business is described as a process (Tuli et al. 2007), we argue that an industrial solution offering still contains the elements needed to provide the customer the desired outcome. Based on our review of various offering concepts found in the extant literature, we propose that an industrial solution offering is an entity comprising customized goods, services, collaboration, and finance needed to fulfill the industrial solution. Next, we use our empirical evidence from two industrial companies that provide process technologies to complete our framework. We argue that by presenting a set of building blocks based on the extant literature and our empirical findings, and arguing their relevance in the solution business field, we can propose a comprehensive perspective on an industrial solution offering.

Research design

To gain an understanding on the relatively unexplored concept of an industrial solution offering, we adopted a classic case study approach (Dyer Jr. and Wilkins 1991; Yin 2009) by focusing in-depth on two case companies. The research problem, the formulation of an industrial solution offering, is a complex contemporary phenomenon that is best studied in its real-life context by the case study method (Yin 2009). Case study also provides the opportunity to move between data and theory to gain novel insights on the problem (Eisenhardt and Graebner 2007; Eisenhardt 1989).

According to Yin (2009), the selection of cases is critical in case study research, and the cases are selected because they are unusually revelatory, extreme exemplars, or opportunities for unusual research access. Dubois and Araujo (2007) claim that case selection is the most important methodological decision. We employed theoretical sampling (Eisenhardt and Graebner 2007) to carefully select the case companies. As the focal phenomenon in our research is the formulation and management of an industrial solution offering, it was important to find two case companies which are actually adopting a solution provider strategy. We employed literal replication, whereby cases are selected so that they predict similar results (Yin 2009). We revised the criteria employed by Kindström and Kowalkowski (2009) and selected three criteria for the selection of our case companies: 1) the company needed to have substantial manufacturing and solution business capabilities; 2) the company needed to have recently invested in its service development; 3) that aiming at customer solutions has been a strategic-level decision. Based on these criteria, we selected two case companies which operate in the same kind of business setting but differ to a large extent in size. The primary method for gathering the empirical data was open-ended interviews (Silverman 2006). To select appropriate interviewees (Halinen and Törmroos 2005), we used the snowballing technique (Biernacki and Waldorf 1981) by focusing on candidates with extensive experience on the service interface within the company.

We had a preconception on our case companies based on their participation in our then academic research project. However, this project provided us with exceptional access to real-life practicing management (cf. Gephart 2004). We began the present study with a review of the literature on offerings. When a preliminary understanding
Developing industrial solution offerings

had been obtained, we formulated a research interview framework that addressed the following issues: 1) the case company’s role as a solution provider; 2) the development and creation of the case company’s offering over time; 3) the role of services in an offering creation; 4) cooperation with customers in the offering creation phase. We used this interview framework with four interviewees from the first case company (spring 2008). We then analyzed the four interviews and decided to enhance our review of the literature according to our new empirical insights on the topic. After this, we continued to the second case company and conducted six interviews with more precise questions regarding cooperation with customers (spring 2009).

The interviewees from both companies had extensive work experience in their companies, and dealt with customers and company development on a daily basis (see Table 2). Many of the interviewees have also switched positions within their company and thus acquired experience and different perspectives on the organization. This was more pronounced at case company Clatec, where, for example, the chief communications officer has been in charge of many different sales areas and where, as the area manager, also held positions within production. This ensured that the interviewees had a comprehensive perspective on their business. Finally, having conducted ten interviews and gathered extensive secondary data, we were able to begin analyzing our data as a whole. Each interview was tape recorded and transcribed very carefully and field notes were written during the interviews.

### Table 2: Interview description

<table>
<thead>
<tr>
<th>Company and interviewee’s title</th>
<th>Experience at the case company (years)</th>
<th>Interview length (minutes – pages)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clatec, Area Manager, Sales</td>
<td>25</td>
<td>47 – 12</td>
</tr>
<tr>
<td>Clatec, Director, Sales</td>
<td>15</td>
<td>50 – 12</td>
</tr>
<tr>
<td>Clatec, Chief Communications Officer</td>
<td>27</td>
<td>54 – 12</td>
</tr>
<tr>
<td>Clatec, Director, Global Customer Support, Service</td>
<td>25</td>
<td>83 – 16</td>
</tr>
<tr>
<td>Metfi, Manager, Technology Sales</td>
<td>34</td>
<td>83 – 13</td>
</tr>
<tr>
<td>Metfi, Director, Services &amp; After Sales</td>
<td>20</td>
<td>72 – 11</td>
</tr>
<tr>
<td>Metfi, Vice President, Business Unit</td>
<td>40</td>
<td>80 – 15</td>
</tr>
<tr>
<td>Metfi, Vice President, Business Development</td>
<td>34</td>
<td>77 – 15</td>
</tr>
<tr>
<td>Metfi, Vice President, Engineering, Projects and Services &amp; After Sales</td>
<td>13</td>
<td>58 – 11</td>
</tr>
<tr>
<td>Metfi, Director, Services &amp; After Sales</td>
<td>18</td>
<td>60 – 13</td>
</tr>
<tr>
<td>Sum</td>
<td>251</td>
<td>664 – 130</td>
</tr>
<tr>
<td>Average</td>
<td>25.1</td>
<td>66.4 – 13</td>
</tr>
</tbody>
</table>

The data were analyzed by employing qualitative content analysis (Silverman 2006), first by focusing on single companies to understand their offering development and then with a cross-case analysis to create the industrial solution offering
framework. While the main empirical insights were derived from the interviews, secondary data enabled us to fill the blank areas and better understand the business environment. We used personal notes written by the project researchers during two focus group interviews, two company specific workshops, and two seminars, as well as archive material and company documents (e.g., newsletters, market research reports, annual reports, CEO presentations, a company history book, circulars, brochures, web pages, and trade media articles). Also, during the research process, we used our research project access to companies to throw ideas at managers and gain their valuable feedback on the study topics. As such, we were able to employ multiple sources of data, which are typical of a case study approach (Eisenhardt 1989; Yin 2009).

**Industrial solution offering**

In this chapter, we review the empirical case material that addresses the development and current state of the case companies’ offerings. Finally, we propose a framework for an industrial solution offering. We begin by describing the case companies’ businesses. The main features of both case companies are shown in Table 3.

**Table 3: Case company description**

<table>
<thead>
<tr>
<th>Feature</th>
<th>Clatec</th>
<th>Metfi</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business</td>
<td>Classification solution provider</td>
<td>Mining technology company</td>
</tr>
<tr>
<td>Employees</td>
<td>560</td>
<td>2,500</td>
</tr>
<tr>
<td>Net sales (2008, €M)</td>
<td>200</td>
<td>1,200</td>
</tr>
<tr>
<td>Growth rate (2003–2008)</td>
<td>Approx. 30%</td>
<td>Approx. 25%, service business 75%</td>
</tr>
<tr>
<td>Market position</td>
<td>Market leader in specific industry segments.</td>
<td>Market leader or niche player depending on the technology.</td>
</tr>
<tr>
<td>Competition</td>
<td>Few globally operating competitors and many smaller local or regional ones.</td>
<td>Highly competitive environment in which competition is consolidating. No direct competitors, but various competitors on different technologies.</td>
</tr>
</tbody>
</table>

Clatec is a classification solution provider which operates in global mining and chemical markets. With its roots in the 1960s, Clatec is a world leader in its niche business area. The company fulfills our criteria for case selection. It has recently adopted a solution provider strategy, and significantly increased the role of service elements in its business model. Solution offering is an essential part of the company’s core activities. It has actively developed its offering to being a full service solution provider in every phase of its customers’ business cycles.
imetfi

Metfi is a mining technology company which delivers process technologies worldwide. The company’s roots are established in the 1910s. Metfi offers technologies that address the whole chain of processing ores into pure metals. The company is divided into three divisions, each of which concentrates on a particular part of the process chain. Metfi’s annual service business growth rate, 75 per cent, is due to the minor role that service has historically played in the company, and its top-level efforts to substantially develop service business. Metfi’s sales vary from mere technology packages and equipment deliveries to large turnkey deliveries. Thus, Metfi also satisfies our case criteria.

Offering history and development in Clatec

Clatec’s technology, especially in more complex applications, is top class and included basic after sales services as part of its offering from the outset. Soon the company added the planning of auxiliary equipment (e.g., pumps) to its offering, although not all of its deliveries include these auxiliaries. With spare parts and know-how, the company has been able to participate in its customers’ processes after completion of machine delivery projects. The need for this after sales service, which has helped maintain customer relationships and collaboration, came from both the case company and its customers.

In the two industries in which Clatec operates, each customer’s process materials are unique. Hence, Clatec’s most important service has been the ability to test its equipment with its customer’s actual process material. In the process technology industry, customers are highly concerned with the results and reliability of their processes. Tests enable Clatec to fine-tune the process machine, and also its customer’s realization of what to expect from the machine after installation.

Clatec advocates lifetime value through long customer relationships in the form of service contracts. The typical life-cycle of Clatec’s solutions is from 15 to 25 years, and the manufactured goods are only a small portion of the lifetime costs of the investment. Clatec’s first operation contract began in a newly industrialized country. The customer corporation has nine sites, five of which are now operated by Clatec. Despite its customer’s, especially site-level managers’, doubts, Clatec managed to negotiate a pilot operation contract with corporate-level supply chain management. After seeing the results, the customer is now considering outsourcing more of its sites to Clatec. A large factor in this success has been mutual agreement and will. The case began with complete refurbishment of the application machinery utilizing original equipment manufacturer (OEM) spare parts. The operating staff was replaced, and the new personnel trained to meet the higher standards. One of the managers said:

“We fully upgraded the operating staff, which meant new local employees; nobody from the original operators was hired. The new employees were then fully trained and they receive partial bonuses based on the actual operating costs and reliability.”

Also, the machines were updated with optimized operating parameters and regular maintenance. The regular cleaning and inspection of the machines improved the
process results. The most notable change is among the operating staff. As the service manager enthusiastically said:

“The change in labor force has led to the fact that in case of a breakdown in the process, instead of doing nothing like the old operators the new operating staff now runs to fix the problem … Whenever we visit the site, the new operators have always kept the machinery in excellent condition by painting and cleaning it regularly. You even can read from their eyes how proud they are of the installation.”

In its progression to a solution based company, the next step from operating and maintenance service is to the so-called build-own-operate-transfer (BOOT, see Pekkarinen et al. 2012) contract, whereby the supplier plans, finances, builds, owns, operates, and, after a specified period, transfers the system to the funding entity. Various BOOT options have been planned by Clatec. However, the magnitude of the financial aspects and risks that relate to this type of business remain challenging for a relatively small supplier.

Although Clatec has always included basic service elements in its offering, the main emphasis has long been on its advanced technologies and goods. Partly due to separated sales and service functions, a part of the sales force still struggles to communicate effectively the service-based offering. Through acquisitions, in-house research and development, and organic growth, Clatec is now focused on becoming a solution provider. While the company retains many characteristics of a traditional equipment manufacturer, it aims increasingly to transform itself into a solution provider. Clatec’s technological knowledge provides it with a unique position to understand its customers’ classification processes. The company has also been developing various service offerings for quite some time. In a recent sales case, Clatec offered to establish a service agency near to the prospect customer if the deal was accepted. Top management has focused the company’s strategic priority on more demanding customer solutions.

**Clatec’s current offering**

Currently, Clatec has divided its services (see Table 4) into four dimensions that comprise spare parts, technical, modernization, and refurbishment services (labeled by Clatec). Based on our analysis of the data, we can draw two notions from Clatec’s solution offering. First, although its technical service includes operation and maintenance service contracts, which can be considered complex services, the simplest mode of service comprising the delivery of spare parts is most profitable for the case company. Second, it seems that Clatec wants to emphasize process support services (PSS), as the majority of the services listed in Table 4 relate to the customer’s process in general.
Table 4: Clatec's current service portfolio

<table>
<thead>
<tr>
<th>Spare parts service</th>
<th>Technical service</th>
<th>Modernization service</th>
<th>Refurbishment service</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spare parts recommendations</td>
<td>Inspection services</td>
<td>Continuous goods improvement</td>
<td>Refurbishment of old machines for new applications</td>
</tr>
<tr>
<td>Spare parts deliveries</td>
<td>Maintenance services</td>
<td>Earlier classifier generation upgrades</td>
<td></td>
</tr>
<tr>
<td>Warehouse planning support services</td>
<td>Repair services</td>
<td>Capacity expansions</td>
<td></td>
</tr>
<tr>
<td>Cloth and component selections support</td>
<td>Annual overhaul services</td>
<td>Equipment relocation service</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Remote support services</td>
<td>Documentation service</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Training services</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Consultation services</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Operation services</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

With regard to the extent of deliveries, as a minimum, Clatec only delivers standard main process machinery. At the other end of its offering continuum is a full service BOOT contract, which is constructed in close cooperation with the customer. Usually the deliveries fall somewhere between the extremes, which comprise the main classification machinery and added service elements, such as a maintenance contract. Thus, the offering must also be adaptive. As one interviewee stated:

“The business has to be adjusted according the customer needs. Certain customers buy standard goods without any consultative selling process … In more advanced machinery solutions, the consultative selling process and collaboration is heavily present.”

Clatec also has services that support the customer network action (SSCN). In some customer cases, Clatec enters into a dialogue with environmental legislation authorities to gain a better position in the tendering phase or to make the investment possible at all. Clatec serves its customers by delivering evidence which proves that its solutions can outperform the regulations in terms of, for example, energy saving and the handling of hazardous materials. In future, Clatec expects that tightening environmental legislation will increase the demand for such services. Furthermore, Clatec delivers services that benefit both itself and the customer in a long-term relationship. The Clatec case provides evidence of this type of service:

“We added to our offering that if the deal is closed, we will establish a service depot near by the customer site with local trained staff to maintain the installation … This would not have been added if the deal was small and, furthermore, if the deal breaks we will not establish the depot in that location … This will help the customer to perform better with shorter maintenance breaks … For us, this helps in closing the deal, but also in organizing the services needed and perhaps in opening up new markets.”

Currently, Clatec is involved in a couple of operation contracts, whereby the company is responsible for a classification plant. In many cases, the operating
agreements have led to improved performance and reliability, with lowered operating costs. These operation agreements also exclude (usually local) third party maintenance companies. Clatec would like to increase the number of operation agreements; however, currently there are shortages in the available local workforce.

**Offering history and development in Metfi**

Metfi has been a traditional technology supplier with strong technological capabilities for decades. At the same time, Metfi has somewhat neglected its service business potential. Its strong market position and technology leadership are based partly on several company acquisitions. Aided by its own research facilities, Metfi has extensively developed its technologies since the 1930s. This has secured its competitive advantage in technological skills. Metfi’s various acquisitions have also provided support for the development of its offering.

Metfi has put effort into developing technologies instead of manufacturing its own equipment, and began selling technology licenses to other mining companies in the 1950s. At that time, the offering included licenses and also some types of basic engineering and design schemes. These basic licensing contracts no longer exist. Later, Metfi developed its own proprietary equipment and offered technology transfers in addition to simply supplying equipment. Usually the technology transfer package contains know-how in the form of the license, basic design schemes, proprietary equipment, supervision, and startup support. The offerings are normally modular in nature; the key point being that the concept design comes from Metfi. Depending on the division and technology, there might be various equipment alternatives from which to choose.

The customer’s role in the offering development is not distinct. Every interviewee raised the importance of knowing the customer process and listening to the customer, but omitted to explain the customer’s role. Nonetheless, solving the problems and challenges faced by customers with the help of Metfi’s own research will gradually develop Metfi’s offering. Another issue is that usually the raw materials for which the equipment must be tailored differ from customer to customer. This dissimilarity forces Metfi to offer customized solutions according to each customer’s characteristics. It also means that customers contact Metfi at quite an early stage in their investment projects, which provides time for co-creation of the offerings. A comment by an interviewee describes differences in customer needs:

“The problems occur in customer’s process and then it is our duty to find the solution and do it so that it can be copied through several customers using the same process equipment.”

Currently, the most central parts of Metfi’s services business comprise shutdown maintenance services, plant and equipment maintenance, and component services. However, in specific parts of the organization, service contracts are perceived as a secondary source of revenue, and often the price only covers the costs. Offering spare
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and wear part packages within the project contract for one product line has come closest to the provision of service contracts. As stated by an interviewee:

“When I joined the team in 2006, we made a list of all spare and wear parts we could think of, and the customer bought it, the whole list, when he bought the solution ... We know, that whenever a customer buys some equipment, he always has five to ten per cent budget for spares. But if you do not sell the whole package at once, the money will be gone in a year or two.”

In addition to the customer’s opinion and raw material characteristics, the customer’s own know-how also influences its behavior and needs. Customers with multiple sites and long experience are keen to acquire only the minimum delivery from Metfi. At the other extreme, newcomers such as junior companies are keen to obtain different types of supervision and maintenance services. There are profitable ongoing service contracts, which can vary from two or three years in length to continuous deals. Usually, these include predefined visits to the site and basic maintenance. Alongside the closer customer relationship, a major benefit is that Metfi can anticipate its customer’s needs and offer, for example, modernization services. However, a conservative opinion in some customer industries has been against entering into service contracts. As an interviewee stated:

“Traditionally the industry has been conservative and the customers have not seen the benefits from outsourced service ... Previously when Metfi’s parent company had their own production facilities, the customers contacted these units directly and that was considered (good will) service ... Currently, we have a few customer support contracts, which run on their own in terms of profit, but can open up new technology deals if a customer need is noticed.”

Similar to Clatec, Metfi also has always possessed service elements in its offering, namely design services, while the main emphasis has long been on its advanced technologies. The development path seems to follow that of Clatec in some key aspects such as acquisitions, in-house research, and organic growth. Metfi has long perceived its goods as solutions; however, in comparison to the solution business concept, the focus seems to have been on closing single deals instead of focusing on relationships. Recently, the company has set ambitious growth targets for service, which forms a clear need to develop its solution offering. Currently, while delivery sizes have grown, the direction is more to product life-cycle models, including service contracts. Optimization services and environmental updates are the top priority among Metfi’s customers, while outsourcing of maintenance also has become more common.

**Metfi’s current offering composition**

Metfi’s three divisions focus on different customer industries. In general, the first division concentrates on equipment sales, the second specializes in technology transfer, and the third has extensive know-how in lump sum turnkey projects. Metfi has categorized its service portfolio under the following four labels (see Table 5): component services, expert services, equipment and plant upgrade services, and operation and maintenance. From these, spare parts and modernizations are the most important sources of revenue. Similar to the Clatec case, the majority of the listed services can be described as process support services (PSS) that relate to the
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customer’s process in general; however, there are some differences. According to the interviewees, the utilization of this service portfolio depends heavily on the division, and thus, the markets. For example, a recent acquisition of a maintenance-specialized service company has strengthened the potential for offering maintenance contracts to one division’s customers. In another division, seven service structures have been developed.

There are also services recognizable in the Metfi case that support customer network action (SSCN). Junior customer companies with no notable business history can utilize Metfi’s reputation as a well-known supplier when they need to convince financiers of their project’s viability. Thus, Metfi indirectly influences its customer’s network by agreeing to participate in a particular “letter of understanding” document. Furthermore, every three years, Metfi holds specially organized conferences for its customers, at which they can share information with Metfi regarding their business challenges. These conferences provide Metfi with accurate insights on possible development needs faced by its customers in everyday operations. In addition to the development needs, Metfi can also identify rumors concerning new actors and projects in the industry during informal conversations. The forum also helps to sell new technology to existing customers because of other customers’ self-presented success stories, thereby offering information on technological possibilities for customers, and benefiting both Metfi and its customers. The importance of these conferences was emphasized by an interviewee:

“The conferences are a good forum; our customers meet each other and chat about their problems, and this is sometimes a good thing because once a customer realizes he is having a problem, we can offer him a solution.”

**Table 5: Metfi’s current service portfolio**

<table>
<thead>
<tr>
<th>Component services</th>
<th>Expert services</th>
<th>Equipment and plant upgrade services</th>
<th>Operation and maintenance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spare and wear parts</td>
<td>Plant audits</td>
<td>Process and equipment optimization</td>
<td>Preventive maintenance</td>
</tr>
<tr>
<td>Component repair services</td>
<td>Plant and equipment inspections</td>
<td>Plant modernization</td>
<td>Operational maintenance</td>
</tr>
<tr>
<td>Stock management</td>
<td>Operation consultation</td>
<td>Installation and startup services</td>
<td>Operation and maintenance training</td>
</tr>
<tr>
<td>Startup support</td>
<td>Training</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Research and analysis services</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

A topical issue in Metfi’s agenda was the commercialization of service concepts to enhance and widen its offering. Taking account of Metfi’s customer industries, a solution cannot be predefined and structured from goods designed at its headquarters.
However, there must be particular, readily specified but flexible service structures. The final offer, or solution, is then co-created with a customer on the basis of these structures to match specific customer needs. An interviewee provided an apt metaphor:

"It is like when you are coaching children in sport, everyone is unique and you have to address your directions accordingly. The same goes for organizations and geographical areas."

One of the main factors that slows down the development of services might be the mindsets of Metfi’s employees. The service organization is divided into the three divisions, which have some communication differences. For example, the idea of product life-cycle management has been understood rather differently:

"It is hard to understand or concretize what the product life-cycle means ... I once asked my colleagues what is the life-cycle in our business. The answers related merely to the delivery and startup phases of the project ... No one thought of the possibilities of long-term contracts."

This reflects the old manner of regarding technology as the focal offering element. Similar to its customers, some of Metfi’s own personnel also think that technology is their key competitive advantage, and that services are not worth developing:

"Why do we need it (service business) now, we have not needed it before?"

Nowadays, lump sum turnkey projects also form part of Metfi’s offering. These are heavily networked projects, in which Metfi takes the lead and supplies core equipment. The size of the average deal has grown significantly, which can be attributed to the numerous consolidations being experienced by its customers. As with Clatec, there have been some enquiries concerning even more comprehensive solutions with a heavy financial focus; for example, full service BOOT projects. However, instead of developing BOOT projects, Metfi perceives growth opportunities especially by developing comprehensive service agreements, improving production efficiency and spare parts deliveries, modernizing work, training, and researching and testing services together with their customers. However, a challenge remains for Metfi as the majority of its customers are not accustomed to purchasing service contracts. Next, we proceed to draw the case evidence together and propose an industrial solution offering framework for solution providers.

**Case synthesis**

Our synthesis of the offering analysis on both case companies is presented in Table 6. It can be seen that, while the case companies differ from each other, and quite substantially in terms of size, the cases demonstrate many similarities. However, it seems that the smaller and more agile Clatec has had more short term success in becoming a solution provider. Clatec also has a more extensive background concerning service elements, and thus its employees have a particular service mindset that is partly lacking from the personnel at Metfi.
## Table 6: A comparison between the case companies’ development from goods-driven to solution business

<table>
<thead>
<tr>
<th>Feature</th>
<th>CLATEC</th>
<th>METFI</th>
</tr>
</thead>
<tbody>
<tr>
<td>Company setup</td>
<td>Focus on classification by employing various technics with a separate service organization. Two different customer industries: mining and chemical.</td>
<td>Three different divisions, each with a service function. Customers from mining industry with different positions in the value chain.</td>
</tr>
<tr>
<td>Sales process</td>
<td>Up to two years. Consultative approach to find the best solutions for customers. Unified image throughout the company to customers.</td>
<td>Up to three years. Delivers information on new possibilities regarding a customer's processes.</td>
</tr>
<tr>
<td>Contract values</td>
<td>€2–3 million each.</td>
<td>€3–300 million each.</td>
</tr>
<tr>
<td>Reasons behind solution development</td>
<td>Long service traditions; customer demand for service contracts; company set service growth targets.</td>
<td>Recent huge growth in service; strategic choice by the company, solving customers’ problems and challenges.</td>
</tr>
<tr>
<td>Customer role in solution development</td>
<td>Usually closely with customers, mainly customer-driven. New types of service developed in collaboration with customers.</td>
<td>Depending heavily on the customer, mainly company-driven. New types of service developed in collaboration with customers.</td>
</tr>
<tr>
<td>Solution completeness</td>
<td>Delivers wide range from plain machinery to BOOT solutions.</td>
<td>Fulfills different needs, ranging from solely delivering goods to solutions.</td>
</tr>
<tr>
<td>Goods elements</td>
<td>Some alternative technologies, mainly adapting for each customer.</td>
<td>Several alternative technologies from which to choose.</td>
</tr>
<tr>
<td>Service elements</td>
<td>Delivers 19 basic service elements (PLS+PSS). Unique testing, whereby the technology is tested with customer’s material. Environmental-related services that affect the customer’s network (SSCN). Mutual benefits from service depot agreements.</td>
<td>Offers 15 basic service elements (PLS+PSS). Consultancy service, whereby company experts are provided to customers to analyze and develop further their processes. A role as a trusted supplier to influence customer’s network (SSCN). Holds conferences at which mutual learning is emphasized.</td>
</tr>
<tr>
<td>Financial elements</td>
<td>Normal pricing. Benefit and risk sharing has a minor role, usually emphasizing risk sharing. BOOT model under consideration.</td>
<td>Normal pricing. Benefit and risk sharing has a minor role, difficulties in guiding customers’ mind sets towards benefit sharing</td>
</tr>
<tr>
<td>Relational elements</td>
<td>Depends on the customer, from transactional to collaborative relationships. Reactive vs. proactive approach depends on the customer.</td>
<td>Depends on the customer, from transactional to collaborative relationships. Moving from reactive to proactive approach.</td>
</tr>
</tbody>
</table>

During our analysis, we were able to recognize two main issues regarding the development of an industrial solution offering. First, the case companies face a relatively heterogenic customer base in respect of their willingness to acquire complete
industrial solutions. Customers have a variety of needs; however, according to our evidence, this is also a customer's mindset issue. While some customers are demanding transactional offerings, others are willing to build a deep relationship and develop the offering together with the supplier. Although demand for fully operated solutions is steadily rising, not all customers are willing to relinquish control of their operations to an industrial solution provider. Thus, there seems to be a demand for various levels of completeness as well as customer/supplier integration in an industrial solution offering. Second, it seems that customers’ needs are constantly evolving; therefore, suppliers need to be flexible in their operations, especially with regard to their service elements. An equipment provider can no longer trust somewhat static technological advantages to continually win in the ever-tightening business environment. New methods of operation have to be developed constantly, which means that suppliers must be able to flexibly adjust their offerings. This synthesis leads us to propose a new framework for industrial solution offerings.

Dynamic industrial solution offering framework

Based on our empirical evidence, we propose a framework for a dynamic industrial solution offering (DISO) in the context of an industrial solution business, depicted in Fig. 1. We argue that an industrial solution offering has two special characteristics: dynamism and completeness. First, the dynamic nature of the offering is derived from the ability for change within an offering. In industrial solution business, customers’ problems are the main driver for the offering development. Our empirical cases have shown that, to provide additional value for the customer, an industrial solution provider needs to adapt to each customer case individually, which means that the offering also needs to be adaptive; that is, dynamic. Second, it is important to include the offering completeness in our framework. Completeness describes the extent to which a customer’s problems/process are solved/controlled by the solution provider (Penttinen and Palmer 2007). The less complete (usually transactional) solutions include merely standardized goods and supporting services (PLS, PSS), which require less collaboration between the supplier and its customer. At the other extreme, companies are providing relational solutions to their customers, whereby a supplier takes responsibility of a particular process of its customer and, therefore, the completeness of an offering is at a high level. For example, Clatec plans to provide its customers with full-service BOOT contracts, which can be seen as a complete relational industrial offering. In these contracts, Clatec will take responsibility for planning, financing, building, owning, and operating its customer’s classifier plant. Currently, the magnitude of the financial aspects and risks that relate to this type of business remain a challenge for a relatively small supplier. Being a considerably larger company, Metfi might possess adequate resources for BOOT contracts. However, the development of Metfi’s whole service ideology is still in too early a phase.

In addition to characteristics of dynamism and completeness, the proposed dynamic industrial solution offering framework comprises three elements: relational, financial, and performance (i.e., goods and services). Based on the evidence, we propose relational elements to be part of the offering. By relational elements we mean
supplier/customer collaboration that, in the case companies, differs from pure transactional deals to relational collaborative partnerships. At the other extreme, an industrial solution provider might need the tools to service a customer in a purely transactional way. For example, some customers order products from catalogues with only minimal supplier collaboration. Alternatively, and in accordance with the relational solution perspective, a supplier has to have methods for more collaborative customer interface. Hence, we propose that in a relational solution, both customer and supplier co-create the offering, whereas with some other customers, suppliers deliver transactional business.

Fig. 1: Framework for a dynamic industrial solution offering (DISO) based on the case evidence and modified elements from the extant literature (Cova and Salle 2008; Normann and Ramírez 1993; Penttinen and Palmer 2007; Ulaga and Reinartz 2011)

With regard to the financial aspects, we argue that financial issues are in the central of industrial solution business. For example, the demand for BOOT business model that Clatec has been developing has derived from smaller customers that possess enough natural resources for mining operations but does not have the needed funding to invest on a large scale factory. In our framework, we included two financial elements. First, every solution has a price. Price is a more decisive factor when the solution concerns simple goods or goods/service combinations. The more a supplier participates in its customer’s process, the more complete the offering and the greater the need for alternative financial arrangements. Here, an interesting issue is whether or not to share risks and benefits. When Clatec takes responsibility for the operation of a particular customer’s classifier plant, the pricing is usually arranged in
accordance with a dollar per ton principle. Here, the benefit and risk sharing element can be utilized by setting specific targets for process outcomes in conjunction with the customer. Depending on the process outcome, the supplier might receive an agreed share as a bonus or participate in potential realized risks. Our case evidence also supports this element in the Metfi case; however, considering their current offering, the time has not yet arrived for these conversations. The inability to calculate the upper and lower limits, and capacity in manpower, are two critical aspects of such deals. Furthermore, customers have not been ready to adapt to such a different logic of earnings.

Performance elements are those that develop the performance of a solution, comprising both goods and services. Goods are the machinery included in the industrial solution offering, usually proprietary and auxiliary equipment. Services can be divided further into four categories, of which the first three are recognized in the extant literature. The simplest services are product life-cycle services (PLS, see Ulaga and Reinartz 2011), which relate closely to the goods. In the case companies, PLS are, for example, spare parts, maintenance, and installation services. These types of service are standard in nature and are applied very often as a component of deliveries. More sophisticated process support services (PSS, see Ulaga and Reinartz 2011) include, for example, employee training and consultation services, and demand more collaboration during the offering creation and customer relationship. Further examples of PLS and PSS services can be found in Table 4 and Table 5. The services that focus on a customer’s network are termed services supporting the customer network action (SSCN, see Cova and Salle 2008). We found evidence of this in both case companies: environmental-related services from Clatec and a type of certificates of trust given by Metfi to junior companies.

As a new service element, we have recognized a fourth service category: services supporting mutual action (SSM). We propose that SSM’s include supplier actions that will benefit both supplier and customer in a long-term relationship. Examples of these include service depot agreements (Clatec) and industry wide conferences (Metfi). In the service depot case, the company agreed to establish a service depot near the customer if the customer accepted their offer, which happened. Thus, Clatec gained access to new markets surrounding the newly established service depot, and the customer reduced downtime in cases of sudden breakdown. In the case of Metfi, the organized conferences provide a venue for networking with its customers. The benefits for Metfi are mainly based on knowledge they receive concerning various customer problems and possible future investments, while the customers can learn both from their peers and new technologies presented by Metfi and other customers. We see that the service elements presented in the literature have mainly focused customer benefits but, considering the relational nature of industrial solutions, we put forward the fourth element, SSM, to complement the categorization of different service elements by focusing on mutual benefits to both customer and supplier.
Conclusions

Our study shows that the provision of industrial solutions is not an easy task for industrial companies that have worked for years with a fundamentally different goods-oriented mindset. However, it is evident that the case companies are willing to invest and change their modes of operation to provide industrial solutions. The results of our study contribute to the solution offering literature (e.g., Brax and Jonsson 2009; Nordin and Kowalkowski 2010) by formulating an industrial solution offering and developing its management within industrial companies. In the following, our research questions are revisited. We conclude our study with managerial implications, limitations of the study, and directions for future research.

Our first research question was “What are the special characteristics of an industrial solution offering?” Based on our analysis, an industrial solution offering has two special characteristics that need to be assimilated by the supplier: dynamism and completeness. First, we learnt that the nature of an industrial solution business offering is largely dynamic and agile. Solution providers must have the ability to seek and grasp new business opportunities provided by their customers’ businesses. For this reason, we termed our framework “dynamic industrial solution offering”. While the core idea in solution business is to offer specific customized solutions, the supplier must be able to adapt to an ever growing mass of different customer needs, by adding the needed new elements to the offering ad hoc.

Second, the offering needs to be adaptive regarding to how complete it is for each customer. Our exploratory results, as well as the extant literature (Penttinen and Palmer 2007), support the existence of a continuum from less to more complete solutions, depending on the customer’s need and will. The more a supplier takes control and responsibility over a customer’s process, the more complete the offering. As such, it is important that a solution supplier is able to serve both ends of the continuum, again, depending on its customer’s characteristics. For these two reasons, the offering itself should have a basic set of building blocks that can be employed to create a customized solution for a variety of customer needs. Next, we will describe these building blocks in more detail.

The second research question was “What types of element should be included in an industrial solution offering?” Based on the literature and insights derived from our case evidence, we propose that our dynamic industrial solution offering (DISO) comprises three elements: relational, financial, and performance (i.e., goods and services). First, the relational element addresses the extent of collaboration with customers. A solution provider can adopt either a transactional role (i.e., usually goods-based, low offering completeness) or a collaborative role (i.e., controlling customers’ processes, high offering completeness) in the creation of a solution. The relational element dictates that an industrial solution provider needs to be organized so that it can serve both a transactional-type customers as well as partnership-type customers.
Second, the financial elements include price as well as benefit and risk sharing. When addressing a more transactional offer, the price element is most likely to be employed. But if the offer is more complete, more advanced financial elements can be employed, such as benefit and risk sharing (Normann and Ramírez 1993). This reflects novel possibilities in earnings logic for suppliers as they pursue longer lasting customer relationships and steadier cash flows. However, while supported in the solution literature (e.g., Sawhney 2006), our case evidence shows that sharing especially the benefits needs still to overcome several obstacles, such as appropriate measurement of performance levels and overall trust issues within partnerships.

Performance elements are the building blocks of solutions. Performance elements include goods, which are the supplied machinery, as well as different types of services. We recognized the existence of the literature based product life-cycle services (PLS, see Ulaga and Reinartz 2011), process support services (PSS, see Ulaga and Reinartz 2011), and services supporting the customer network action (SSCN, see Cova and Salle 2008). Unseen in the extant literature, we argue that there is also a fourth service category. We propose that services supporting mutual action (SSM) include supplier actions that will benefit both the supplier and its customer in a long-term relationship. SSMs are a result of co-creating the offering, as they deliver additional value to both parties in the long run. Examples of these include service depot agreements (Clatec) and industry wide conferences (Mefi). Together, three elements presented above form our proposed DISO framework (see Fig. 1). However, if not managed properly, these elements are not enough by themselves to create a successful service business.

The last and more managerial research question was “How should an industrial solution offering be managed?” We identified four issues to help manage industrial solution offerings. First, solution providers need to collaborate with their customers. Close communication and mutual trust with a customer is necessary when aiming to benefit sharing agreements. This cannot be achieved without extensive collaboration on and co-creation of the solution. However, there seems to be a demand for various levels of completeness in an industrial solution offering, which industrial providers need to understand. While collaboration is often required, there is no point in allocating resources to it if collaboration is not appreciated by a customer.

Second, we found evidence that understanding the customer and its process is vital for the delivery of profitable solutions. In other words, solution providers need to adopt customer oriented mindsets. Furthermore, understanding the process is not always sufficient—a solution provider should understand its customer’s business as well as what its customer’s customers’ value. The logic of solution business differs greatly from traditional industrial companies’ goods-based business. By enabling different ideas and embedding a new service-based mindset, solution providers can succeed in finding new markets and a competitive advantage within them. Providing solutions requires out-of-the-box thinking to develop new methods of creating value for customers while maintaining a viable business model. For example, although case company Clatec has actively developed its offering to a service orientation and has
relied for decades on customer-orientation, it seems that the development of its industrial solution offering should be co-created even more extensively with customers, which seems to echo their goods-centric starting point.

Third, solution suppliers need to have a service-driven organization. Services constitute an increasing proportion of turnover, and profitable management of intangible services globally requires significant effort. In this, there are many risks to be addressed, such as how to resource human-based service operations, how to tackle global distances while promising acceptable response times, and how to manage incentives. Clatec organized its service function as a separate service business unit. Metfi divided its service functions across three separate divisions, and thus benefits from closer internal relationships between equipment sales and service. However, it seems that Clatec’s organization has progressed further with regard to its solution mindset. Clearly, company size differences affect the efficiency of different organizational formats.

Finally, we present our thoughts on limitations and future research agendas. Our study concentrates on an industrial solution offering in solution business by deriving empirical insights from two case companies. Although case research provides deep access and understanding on the studied phenomenon, it also has shortcomings. The results are entirely based on the case companies, and their suitability within other environments cannot be guaranteed. Furthermore, the case companies represent similar settings; they both operate in the mining industry and both are building their business on their existing base. Thus, the results are heavily context bound. However, when analyzing the empirical data, we have endeavored to deliver fresh insights on the solution business literature by proposing our framework for a dynamic industrial solution offering. We have focused on defining an industrial solution offering, and left the notions concerning profitability and communication to future research agendas. Also, we focus here on theory construction rather than theory testing. This leaves a gap for testing and possibly refining the proposed dynamic industrial solution offering framework with multiple cases or a survey study. Further studies should be conducted to obtain more empirical evidence and support for our framework, especially for the new SSM element. Furthermore, an interesting avenue will be to analyze how company size relates to the success of a solution business. For example, are smaller, perhaps more agile, companies better suited to this resource intensive industrial solution business than bigger players? To conclude, for an industrial solution provider facing ruthless global competition, the management of solution business seems to be a harsh but rewarding approach to securing profitable sales instead of dumping prices.
References


Eggert, Andreas, Wolfgang Ulaga, and Franziska Schultz (2006), “Value creation in
the relationship life cycle: A quasi-longitudinal analysis,” Industrial Marketing
Management, 35(1), 20–27.

Eisenhardt, K. M. (1989), “Building theories from case study research,” Academy of


Ford, David, Pierre Berthon, Stephen J. Brown, Lars-Erik Gadde, Håkan Håkansson,
Peter Naudé, Thomas Ritter, and Ivan Snehota (2002), The Business Marketing
Course: Managing in Complex Networks, Chichester: John Wiley & Sons.

Gephart, Robert P. Jr. (2004), “Qualitative Research and the Academy of

advantage,” in Add value to your service: the key to success, Chigaco: American
Marketing Association, 81–85.

Management Approach, Chichester: Wiley.

Halinen, Aino, and Jan-Åke Törmöros (2005), “Using case methods in the study of

Hedman, Jonas, and Thomas Kalling (2002), IT and Business Models: Concepts and
Theories, Liber Ekonomi.

Hypko, Phillipp, Meike Tilebein, and Ronald Gleich (2010), “Clarifying the concept of
performance-based contracting in manufacturing industries: A research synthesis,”

Jacob, Frank, and Wolfgang Ulaga (2008), “The transition from product to service in
business markets: An agenda for academic inquiry,” Industrial Marketing
Management, 37(3), 247–53.


service offerings: a process framework,” Journal of Service Management, 20(2),
156–72.

Kindström, Daniel, Christian Kowalkowski, and Fredrik Nordin (2012), “Visualizing the
value of service-based offerings: empirical findings from the manufacturing

Comprehensive-Practical Approach,” Journal of Business Market Management,
6(1), 22–37.


Normann, R. (2001), Reframing business: When the map changes the landscape, John Wiley & Sons.


