

Service Offering in Solution Marketing – A Case Study

Proposal for a competitive paper in IMP2009 Conference, Marseilles

Keywords: Solution marketing, service offering, offering co-creation, service-dominant logic

Olli Pekkarinen

Department of Industrial Management, Faculty of Technology Management
Lappeenranta University of Technology, P.O. Box 20, 53851 Lappeenranta, Finland
Tel. + 358 - 5 - 621 6644 Fax. + 358 - 5 - 621 6699
olli.pekkarinen@lut.fi

Risto T. Salminen

Department of Industrial Management, Faculty of Technology Management
Lappeenranta University of Technology, P.O. Box 20, 53851 Lappeenranta, Finland
Tel. + 358 - 5 - 621 2645 Fax. + 358 - 5 - 621 6699

Anne Jalkala

Department of Industrial Management, Faculty of Technology Management
Lappeenranta University of Technology, P.O. Box 20, 53851 Lappeenranta, Finland
Tel. + 358 - 5 - 621 6675 Fax. + 358 - 5 - 621 6699

Abstract

The shift in industrial suppliers' business logic from marketing products to marketing solutions sets challenges in creating effective service offerings. In this paper we focus on a solution provider's service offering and its formulation. Based on a literature review from the solution marketing, service marketing, and project marketing literature we suggest a conceptual framework of the solution provider's service offering elements. Through two empirical cases about industrial solution providers we then examine these elements and illustrate the offering formulation process of a solution provider. The findings from the case study allow us to propose a revised conceptual framework of a solution provider's offering formulation.

Introduction

There is an ongoing change in the form of capital goods suppliers' business models – former equipment manufacturers like to call themselves more often as solution providers, which market their products by capacity and availability instead of plain machinery with fixed prices. In the management of marketing activities this can be seen in closer customer relationships, service-dominant business logic and collaboration in solving customers' problems. Although companies acknowledge the importance of service, they are struggling with the management of their service offerings. Gaining profit through delivering complex solutions has also shown to be quite a challenge (Tuli, Kohli and Bharadwaj, 2007). Furthermore, many of these “solution providers” do not have extensive collaboration with their customers, which is one of the key prerequisites for selling solutions. Luckily solutions-based business models are interesting also from the managerial viewpoint. The adoption of this type of business model changes a firm's offering from one based on selling products to solutions including several service elements. These elements are then ‘packaged’ into routines and methods of operations in the form of service offerings (Davies, Brady and Hobday, 2007).

Re-positioning the offering when adopting a solution provider strategy may be problematic (Cornet et al., 2000). Solution providers are struggling to find a balance between unique value propositions to changing customer needs and standardized service components with simplified methods of operations. As a consequence, there are challenges in e.g. how to construct a service portfolio in a way that supports the core business of a company instead of being a burden – some companies have outsourced their services by giving away the blueprints for spare parts directly to the customer. Organizational buying behavior with multiple actors involved in the decision making create an additional challenge to the construction of service offerings. A seller needs to capture the different expectations from all the participants in order to successfully close the deal.

In this paper we focus on examining a solution provider's service offering elements and their formulation. The study contributes on the developing research stream of solution marketing by addressing the following research questions: 1) What are the elements of a solution provider's service offering?; and 2) How is the service offering of a solution provider constructed? The paper aims to open up one side of service customer solutions. The theoretical background for service in B2B context is in its infancy. Araujo and Spring (2006) argue that there is a need for a better categorizing of services from a business perspective. Here, this is done by identifying the service offering elements. These elements will also help managers in their task for building efficient service portfolios, by giving them categorized building blocks.

Based on a literature review, we first develop a conceptual framework for examining the service offering elements of a solution provider. We then present how to construct such an offering using two international solution provider companies as case examples. Based on findings from the two cases, we finally propose and characterize a framework of a solution provider's offering elements.

Literature review

In the following, we review relevant studies from the fields of project marketing, solution marketing, and service marketing. We will start the section by clarifying the context of solution marketing. Then we move to reviewing the concept of offering in different marketing context.

Solution marketing context

Service-dominant business logic (Vargo and Lusch, 2004) has challenged traditional goods-dominant logic in the marketing literature. There is an ongoing change from a product orientation to a solution orientation (e.g. Cova and Salle, 2007). When the scope, scale, and the degree of integration between the elements in an offer are at high level, we can speak about solutions (Cova and Salle, 2007). There are several overlapping concepts in the literature that are used to describe the solution oriented business model. These include customer solutions (e.g. Tuli, Kohli and

Bharadwaj, 2007), value added solutions (e.g. Matthyssens and Vandenbempt, 2008) and integrated solutions (e.g. Brady, Davies and Gann, 2005). In this study we use the term solution when speaking about service offerings in solution business.

Companies are shifting their actions from meeting customer needs to identifying their latent needs or creating their needs. Emphasizing “market with” instead of “market to” the service-dominant (S-D) logic highlights the close cooperation relationship between supplier and customer (Lusch and Vargo, 2006). This collaboration is typical in solution marketing, as solutions are often co-created to match a customer’s problem (Sawhney, 2006). This collaboration means that seller and buyer are together co-constructing the offering and further customer perceived value.

Araujo and Spring (2006) claim there is no sense in separating services and products, and that there are no strict rules about whether something is a product or a service. This emphasizes the importance of the whole solution and its meaning to the customer. However, according to a recent study of customer solutions (Tuli, Kohli and Bharadwaj, 2007), suppliers view solution as “a customized and integrated combination of goods and services for meeting a customer’s business needs”, whereas customers view solutions more as a set of processes in the buyer-seller relationship. This set of processes includes four elements: 1) customer requirements definition; 2) customization and integration of goods and/or services; 3) their deployment; and 4) post deployment customer support. Due to this contradiction in suppliers’ and customers’ view, Tuli, Kohli and Bharadwaj (2007) stress that suppliers should pay more attention to these relational processes in order to deliver more effective solutions at profitable prices. Payne, Storbacka and Frow (2008) call these relational processes as encounters which must be aimed to help the customer to utilize both own and supplier’s resources better.

In their paper, Araujo and Spring (2006) acknowledge a need for a better categorization of services from a business perspective. There are not many studies that examine what kinds of services are included in service offerings in solution context. Services are taking the head role in creating customer perceived value. There is evidence, that services are the most important piece of solutions as companies are outsourcing production and the largest proportion of in-house activities is shifting towards the service component (Davies, Brady and Hobday, 2007). Bearing this in mind, we focus mainly on the service aspects of solutions. In the following, we draw on several literature streams to map the concept of offering in general and to identify the possible elements of a solution provider’s service offering.

Offering concept

The concept of offering has received only limited research interest in different fields of marketing research and the concept seems to lack clarification especially in the case of solution offerings. Project marketing context is quite close to the marketing of solutions (Cova and Salle, 2007), and we will use project marketing studies together with service marketing studies as a body for this review. Integrated solution is also called as a special form of offering (Wikner and Andersson, 2004) and many of the solution concepts found in the literature (see a review in Tuli, Kohli and Bharadwaj, 2007) are quite close to the presented offering concepts.

Examination of the different definitions for the offering concept points out that most authors agree on the obvious role of products and services in an offering. However, there are quite a few opinions about the other offering elements. Depending on some extent on the context, authors have suggested elements such as technology, information, capabilities, financial elements, quality, benefits and sacrifices, risk sharing, and even image to be included in an offering. In the Table 1, we have collected these various conceptualizations of offering. Next we examine the elements in a detail by categorizing the elements into the following sub-categories: service, physical, value elements, and offering strategy.

Table 1. Different definitions for offering found from literature

Elements of offering	Special features and context	Authors
Core, facilitating, supporting services surrounded by the service concept, accessibility of the service, interactions, and consumer participations	Augmented service offering (ASO), the role of technology, service marketing	Grönroos 1987, 2000
Goods, services, risk sharing and risk taking, access to or use of systems or infrastructure, and information	Risk aspects	Normann & Ramirez 1993
Technological, legal/financial, and socio-political offering	Creative offering with proactive anticipation	Cova, Mazet and Salle, 1994
Product quality, salesperson, service and price	Partnering	MacKenzie and Hardy 1996
Product, services, programs, or systems	Market offering. To add value or reduce cost	Anderson and Narus 1999
Product/service attributes, relationship, and image	Customer value proposition	Kaplan and Norton 2000
Goods/services, information, resources, capabilities	E-business	Amit and Zott 2001
Technical components, service elements, and financial components plus specifications and flexibility	Definition of project offer	Cova, Ghauri and Salle 2002
Product, service, price/cost	E-business	Hedman and Kalling 2002
Advice, product, service, logistics, adaptation	First advice, then the product-service-logistics combination, and last is adaptation	Ford et al. 2002
Products, services, information, and experiences	Value proposition. Primary services package, for fulfilling customer's expectations, but also secondary service features	Kotler 2003
Product, services, price vs. benefits and sacrifices	Integrated solutions	Wikner and Andersson 2004

Service elements

Services have a major role in the present business-to-business offering (e.g. Grönroos 1987; Stremersch, Wuyts and Frambach 2001; Ford et al. 2002); there are numerous types of services implemented in various phases of solution time cycle (Artto et al., 2007). Services are also considered an important source of generated value (Anderson and Narus 1995). Being intangibles, services are quite hard to universally classify. Still, according to Boyt and Harvey (1997, p.294), there has been many studies trying to classify services, but “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 stayed the same (Araujo and Spring, 2006).

In the services marketing discipline, the offering concept has received only little focus. Grönroos (2000) divides service offering into following four categories: the service concept, a basic service package, an augmented service offering (ASO) and finally managing image and communication. The service concept only determines the intensions of a company, while the basic service package fulfills the customer's needs with core, facilitating, supporting services. The augmented service

offering is closer to the idea of solutions by combining service concept, basic services and customer interactions (Grönroos, 2000).

Arto et al. (2007) characterize project business services into before, during, or after a delivery according to the phase when the service is used. Van der Valk (2007) identifies four service types on the base on how the services are used by the customer; consumption, instrumental, semi-manufactured, and component services. In her dissertation she divides services first according to whether a service is used within the customer company and then whether a service relates to primary process or is delivered by the customer (Van der Valk, 2007). These classifications are not built on the extensive relationship viewpoint. 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 view.

In the project marketing context, there are several studies which has categorized and examined project-related services with the same ideology (e.g. Mathieu, 1999; Cova, Dontenwill and Salle, 2000; Skaates and Cova, 2004; Cova and Salle, 2008). Mathieu (1999) started with service which supports the supplier's product (SSP) and service which supports the client's action in relation to the supplier's product (SSC). Cova, Dontenwill and Salle (2000) added SSC2 describing services supporting the client's action with no direct link with the supplier's products. They also introduced SSN (SSCN in Cova and Salle, forth), which are services supporting the client's network (see Table 2). Skaates and Cova (2004) complement this categorization by arguing that while SSP are usually an integral part of the offering, SSC1, SSC2, and SSN services are more easily separable from the physical project offering. In this study we build on the service categorization depicted in the Table 2, because of its applicability in the project marketing context and thus ability to depict complex solution-like phenomena.

Table 2. Service categorization in project marketing (Cova, Dontenwill and Salle, 2000)

Abbreviation	Definition
SSP	Services supporting the physical offering (e.g. installation)
SSC1	Services supporting the client's action (e.g. employee training)
SSC2	Services supporting the client's action with a less direct relation to the supplier's immediate order (e.g. general advice about the energy efficiency)
SSC/SSCN	Services supporting the client's action in the client's network of relationships to other actors (e.g. entering to a dialogue with the client's business partners)

Physical Elements

Products are the physical elements of the offering. In solution business, some physical products often exist even when the contract is mainly based on service. According to Ford et al. (2002), "product itself has no intrinsic value", it is only a solution for a problem. Thus products are not the most important element of the offering. In the proposed offering concept, products are called as the core idea – in industrial investment goods this could be for example a paper machine. There are also many references to specifications, thus it is included in the conceptual framework.

Value Elements

Suppliers must understand the logic in value creation and delivery to the customer (Ulaga 2003). Thus it does not come as a surprise that value is a relevant topic when exploring the concept of offering – many of the authors mentioned above have included some kind of financial aspects into their offering concepts. When marketing full-service offerings, total costs and performance are the two most important attributes for the buyer (Stremersch, Wuyts and Frambach, 2001).

But value is more than the financial issues. Customers, for example, are interested in how reliable the result is going to be – for example in the process industries, customers usually demands a set of

different test periods even before the actual guarantee period starts. When the financial issues are important, the possible risks are a topic which usually arises. From the gathered offering concepts, only Normann & Ramirez (1993) have taken risk sharing and risk taking as a part of offering. Furthermore, risks are “inherent to any offering” with emphasize on project business (Normann 2001). Thus the management of risks is essential in project business and needs to be involved in the proposed offering.

Offering Strategy Elements

The existing project marketing research has identified different approaches in developing the offering (e.g. Cova and Hoskins, 1997). Suppliers may either anticipate and learn to comprehend the competitive arena and the rules of the game (deterministic approach), or become actively involved in shaping the competitive arena and the rules of the game (constructivist approach). Skaates and Tikkanen (2003) have built on Bonaccorsi, Pammolli and Tani (1996) and added a possible control approach – an extreme version of the constructivist approach – in which the company controls the whole milieu. Furthermore, they call these approaches as postures, a term which is used also in this paper. These three postures are the basis of the company’s strategic options in the formulation of project marketing offering. Creative offering means offering in the constructivist approach (Cova, Ghauri and Salle 2002, p.42) but can be adapted also in the control posture. This creative offering denotes that there is no fixed offering, but these project companies have to be able to build their offerings according to situation at hand.

Conceptual framework

Based on the discussion above, we can now formulate a conceptual framework for service offering of a solution provider. The review of different offering concepts shows that the concept of offering has a variety of different conceptualizations depending on authors and disciplines. Here, we suggest that by presenting a set of building blocks or elements for service offering based on previous literature and arguing their relevance in the solution marketing field, there is room for a comprehensive view. These elements are categorized into the following sub-categories: service, physical, offering strategy, and value elements.

The following Table 3 summarizes the elements proposed to be included in the concept of service offering, or the parts from which a creative offering can be built. In more traditional markets, there is a continuum between product and service orientation in offering (Penttinen and Rajala, 2004). We suggest that the continuum in service offering is in the completeness of offering (Penttinen and Palmer, 2007). The completeness of an offering describes the amount of customer problems solved and the amount of the additional work left to the customer.

Table 3. Conceptual framework of service offering based on the literature review

Category	Element	Role in offering
Service elements	SSP	Supports the core “product”
	SSC	Supports client’s actions
	SSN/SSCN	Supports client’s network
Physical elements	Core	Acts as a base for business, the traditional core of the offering (e.g. a paper machine)
	Specifications	Acts as a blueprint for a project
Value elements	Financial elements	Mostly in the tender phase
	Risk sharing	Controls the uncertainty factor
Offering Strategy elements (postures)	Deterministic	In case of readily built tender – “anticipating”
	Constructivist	If the tender is jointly formulated with customer – “involving”
	Control	When the supplier controls the tender formulation – “controlling”

Research design

The research problem is approached by adopting an abductive research logic, which involves systematic combining of both theoretical and empirical aspects to gain a holistic understanding of the focal phenomenon (Dubois and Gadde, 2002; Kovács & Spens, 2005). The nature of this study is explorative. In order to gain a deep understanding of the relatively unexplored phenomenon of solution provider's service offering formulation, we have adopted a classic case study approach by focusing in-depth on two case companies (Dyer and Wilkins, 1991; Yin 2003). The research problem is a complex phenomenon which is studied in its real-life context and thus case study method is appropriate (Yin, 2003). Case study offers also a possibility to move between data and theory to gain novel insights into the problem (Eisenhardt, 1989; Eisenhardt and Graebner 2007).

According to Yin (2003) in case study research, the selection of cases is critical and the cases are selected because they are unusually revelatory, extreme exemplars, or opportunities for unusual research access (Yin, 2003). Dubois and Araujo (2007) claim that the case selection is the most important methodological decision. Furthermore, it is important to select appropriate informants from the chosen case companies (Halinen and Törnroos, 2005). As the focal phenomenon in our research is solution provider's service offering formulation, it was important to find a case company which is actually adopting a solution provider strategy and then contact key informants who have long experience in the service interface within the company. Bearing the vitality of case selection in mind we carefully selected two case companies with slightly different service settings. The first one has an extensive service portfolio while the second company has relied mainly in its technological advantages and started developing its service portfolio only recently. To achieve a better understanding about service business in global markets, both of these companies operates mainly internationally in nearly every continent.

The data collection was carried out with multiple sources of data, which is typical with case studies (Eisenhardt, 1989; Yin 2003). The primary method for gathering the empirical data was thematic interviews. The personal interviews covered issues such as the case company's role as a solution provider, the development and creation of the case company's offering over time, role of services in the offering creation, as well as cooperation with the customers in the offering creation phase. The interview structure was slightly modified for the second case company interviews. All the interviews were tape recorded and field notes were made during the interviews. In the first case company, four top managers, who all had an extensive experience in the case company, were interviewed. Three of the interviewees have been working in the case company for nearly a quarter of a century and the fourth interviewee about fifteen years. Two of the managers work currently in the sales, one is responsible for company communications and one is head of global customer support. In the second case company, altogether six interviews were made. From these, two directors and a vice president work in services and after sales, a vice president and a manager in sales and a vice president in business development. The range of their work experience within the case company varied from 14 to 40 years. Besides the interview data and field notes, we used also some secondary data to obtain an in-depth overview of the case company's service offering formulation over time. This included annual reports, an offering circulation, CEO presentations, a company history book, and company brochures and information on the public company web pages.

To understand the current service offering of the case companies, we first review the empirical case material covering the development of an offering in the case companies. Then we describe what the present offering is in both of the companies. These are described below with separate case descriptions. Finally, based on the evidence we move on to proposing a common service offering framework for solution providers.

Case Clatec

The first case company, Clatec, is a classification solutions provider which operates in global business markets and has long traditions in business-to-business services. Being an essential part of the company's core business it actively develops its service offering, which makes the company ideal for our research purposes on this topic. The service business is organized under its own business unit. The company was selected for the research also because it has recently adopted a

solution provider strategy and increased significantly the role of service elements in its business model. The company can thus be regarded as an illustrative and revelatory case when examining solution provider's service offering.

The case company Clatec supplies classification equipment and related services. The operations of this company are global and it employs some 500 people worldwide with a turnover of over 150 million euros. The development of its turnover has been positive in the last years, the latest growth rate being nearly 30 percent per year. An example of the factors that positively impact on the demand for the company's products includes the current high metal prices and tightening environmental legislation. The sales process of this company can take up to two years from the first contact with a customer to securing a deal. Contract values are typically below 3 million euros, however, some deals has been even tenfold. Competition for this company is fragmented and undergoing consolidation, which has been notable in the customer industries. The company has only a few globally operating closely comparable competitors, and many smaller local or regional ones. Unlike its competitors, the company concentrates purely on classification. It has actively developed its offering concept towards full service solution provider in every phase of customers' business cycles. The company is a market leader in certain industry segments.

Offering development in Clatec over time

The case company is a world leader in its niche business area. Its technology especially in the more complex applications is top of the class and it has long traditions in service business.. The company has relied on some extent of services from the start of its existence. The most important of these services have been the ability to make test use with the actual process of a customer. There are two sound reasons for this: right adjustments and the quality of the end product. In the two industries the case company operates, every process substance has different characteristics. This means that the equipment must be adjusted properly. Acting in the process technology industry, the customers are highly concerned on the results and reliability of their processes. Process lines often function round the clock and delays might cause serious set backs in profit. Thus the seller has to ensure the capability of its products in every process by doing these test drives with the actual process substance. Test results help the company in fine-tuning the process machine but also the customer in realizing what to expect from the machine after it is installed. Another service feature offered already in the beginning is basic after sales. With spare parts and know-how the company has been able to participate in the customer's process after the machine delivery project has been completed. Need for this after service has come from the customers and the case company has had a chance to develop its service offering with a help of long customer relationships. Soon the company added the planning of auxiliary equipment to its offering, though nearly not all of the deliveries include these auxiliaries.

In the recent years, the main driver for the case company's offering extensions has been the ambitious growth targets set by top management. Due to the 20 per cent annual growth goal set by the top management, the service business has had to boost its role in the case company's turnover and it is now evolving as the new competitive edge for the company. Partly because of separated sales and service functions, a part of the sales force is still struggling to communicate effectively the service-based offering. However, there are clear signs that the successful use of service components has already secured some deals. Also the size and value of projects has notably increased. The case company advocates life time value through long customer relationships in the form of service contracts. A typical life-cycle of a company's solution is from 15 to 25 years and the manufactured product is only a small portion of the life time costs of the investment. To secure its market position, new inventive services must be mobilized. In a recent sales case, the company offered to establish a service agency near the prospect customer if the deal was accepted. Previously this kind of contract agreement would not be a part of the case company's operations.

The first operation contract started in a newly industrialized country. The customer corporation has nine sites, five of which the case company now operates. At first, the customer had doubts about the operation contract, and the site level management was against operation contracts. However, the case company managed to negotiate a pilot operation contract with corporate level supply chain management. After seeing the results, the customer is now considering to outsource more of its sites

to the case company. A large factor in the success of this type of contract has been mutual agreement and will to the arrangement. The case was started with complete refurbish of the application machinery with OEM (Original Equipment Manufacturer) spare parts. The operating staff was replaced and 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.”

Besides the staff, also the machines were updated with optimized operating parameters and regular maintenance was applied with a tight bookkeeping. Cleaning the machines regularly also helps the process results as does inspections. The most notable change is within the operating staff. As the service manager lively puts it:

“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 way to more solution based company, the next step from operating & maintenance service is so called BOOT (Build-Own-Operate-Transfer) contract, where the seller plans, finances, builds, owns, operates and after a specified period transfers the system to the funding entity. BOOT operations are so far in the state of planning. The magnitude of finance aspects and risks related to this kind of business are still quite a challenge for a relatively small supplier.

Although Clatec has always possessed basic service elements in its offering, the main emphasis has long been in its advanced technologies and products. Through acquisitions, in-house research and development, and organic growth Clatec has now focused more and more to become a true solution provider. The company considers its solutions being mainly good equipment. While the company still has some characteristics of a traditional equipment manufacturer, it aims to develop itself more and more into a solution provider. The technological edge gives Clatec a unique position of understanding the customers' classification processes. Top management has set the company's strategic priority towards more demanding customer solutions.

Clatec's current offering composition

Currently the case company has divided its service products (see Table 4) into four dimensions: spare parts, technical service, modernization service, and refurbish service. Based on the interviews, we can draw two notions from the Clatec's service offering. Firstly, although the technical service includes the operation & maintenance service contracts which can be considered as complex services, the most simply service of delivering spare parts is more profitable for the case company. Secondly, it seems that Clatec wants to put emphasis in SSC (services supporting the client) types of services, because the majority of the services listed in Table 4 are SSC's by nature. Only spare parts deliveries can be categorized as SSP's, and it can be noted that basic installation services are not highlighted at all. However, in this paper we focus on defining the service offering and these notions about profitability and communication are left to the future research agendas.

While the scale of the offering depends heavily on the product, location and customer, the marketing actions must also be adapted. As one of the informants puts it:

“The business logic has to be adjusted according the customer needs. Certain customers bought certain standard products without consultative selling process ... In a more advanced machinery solutions the consultative selling process and collaboration is heavily present.”

At minimum in a heavily product related solution, Clatec delivers only a standard main process machinery. In the other end of the offering continuum is a full service BOOT contract, which is constructed in close cooperation with the client. Usually the deliveries are something between the

extremes, containing the main classification machinery and added service elements such as maintenance contract.

Table 4. Clatec’s current service portfolio with author added SSP/SSC classification

Spare Parts Service (SSP/SSC)	Technical Service (SSC)	Modernization Service (SSC)	Refurbish Service (SSC)
Spare Parts Recommendations (SSC)	Inspection Services	Product Continuous Improvement	Refurbish of old machines for new applications
Spare Parts Deliveries (SSP)	Maintenance Services	Earlier Classifier Generation Upgrades	
Warehouse Planning Support Services (SSC)	Repair Services	Capacity Expansions	
Cloth and Component Selections Support (SSC)	Annual Overhaul Services	Equipment Relocation Service	
	Remote Support Services	Documentation Service	
	Training Services		
	Consultation Services		
	Operation Services		

At the moment, Clatec has a couple of operation contracts going on, where the company is responsible of a classification plant in a certain manufacturing facility. In many cases the operating agreements have led to improved performance and reliability with lowered operating costs. By operating the whole process, Clatec automatically blocks the third party maintenance companies. Currently the case company could extend these kinds of operation agreements, but there are shortages in the amount of available local work force. By doing operation and maintenance contracts the company also gets rid of local competition in the after sales markets.

Case Metfi

Metfi is a mining technology company, which provides process technologies worldwide. The technologies offered by the company cover the whole chain of processing ores into pure metals. The company is divided in three divisions, each of which concentrates on a certain part of the process chain. The main reason for selecting Metfi as a case company was its ambitious growth target in service business. The latest annual growth rate of service business within Metfi was remarkable 75 per cent. This is due to the fact that service has had only a minor role in the company’s history.

The company has only recently undergone a stock listing, but as a part of its former parent group its roots trace back to the first half of the previous century. There are over 2500 employees working at Metfi all over the World and the current annual turnover is over 1200 million euro. The growth in turnover has been substantial in the past five years starting from less than 400 million euro in 2003. During the boom period, market conditions were recently favorable as demand for metals rose, creating a demand and supply imbalance. This in turn resulted in high metal prices and increased capital investments by the company’s customer industries.

The duration of the company’s projects is typically long, ranging from 10 to 36 months. The nature of projects varies, from technology packages and equipment deliveries of values starting from 3 million euro to large turnkey deliveries worth up to 300 million euro. The customer base of the company is undergoing consolidation, with a few global companies owning the vast majority of customer sites. Also the competition is consolidating. The company operates in a highly competitive environment. The company has a number of technologies where it is a clear market leader, and others where it operates as a niche player. As a whole, the company does not have directly comparable competitors, but instead competitors that compete with a part of their portfolio.

Offering development in Metfi over time

Metfi has been a traditional technology supplier for decades. It has long relied on its technological capabilities but at the same time somewhat neglected service-based potential. The strong market position and technology leadership are based on its previous parent company and several company acquisitions. Being a part of a larger corporation, Metfi had an opportunity to use and develop its technologies further in-house. There has been a strong support from its own research facilities, which have secured the competitive advantage in the technological skills. The various acquisitions Metfi has executed have also provided support for offering development.

Metfi's own technology development started somewhere in 1930's. The company put effort on developing technologies instead of manufacturing own equipment and started selling technology licenses to other mining companies in 1950's. Back then, the offering included licenses but also some sort of basic engineering and design schemes. These mere license deals do not exist anymore. Later on, Metfi developed own proprietary equipment and offered technology transfers besides plain equipment. Usually the technology transfer package contains know-how in the form of the license, basic design schemes, proprietary equipment, supervision, and start-up support. The offerings are usually modular in their nature, the key point being that the concept design comes from Metfi. Depending on the division and technology, there are few or no possible alternatives for the actual equipment. Nowadays, lump sum turnkey projects are also a part of Metfi's offering. These are heavily networked projects, where Metfi leads the orchestra and supplies its core equipment. It can be said that in general, the average delivery size, the size of the deal Metfi delivers, have grown significantly. This can be derived from the numerous consolidations the customers are going through. Overall, it can be generalized, that while the first division concentrates on equipment sales, the second is specialized on technology transfer and the third one has extensive knowhow in lump sum turnkey projects. However, on the contrary what one might suspect, the different divisions have different customer industries.

The role of customers in the offering development was not that clear. Every respondent brought up the importance of knowing the customer process and listening to the customer, but when the role was asked, the answers were few. Nonetheless, solving the problems and challenges customers face with the help of Metfi's own research will develop Metfi's offering bit by bit. Another issue is that usually the raw materials differ from customer to customer and the equipment must be tailored according to them. 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 of their investment project, providing time for co-creation of the offering.

“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 are shutdown maintenance services, plant and equipment maintenance and component services. However, in certain parts of the organization, service contracts are perceived as a secondary source of revenue and often the price covers only the costs of such service. Offering spare and wear part packages within the project deal has been the closest to service contracts in one product line, as an informant puts it:

“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 some customer industries, the markets for service contracts have to be first created. A conservative industry opinion has been against 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 directly to these units and that was considered

as (good will) service... Nowadays, 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.”

Besides the customer’s opinion and raw material characteristics, also the customer’s own know-how influences on its behavior and needs. Those customers with multiple sites and long experience are keen to acquire only the minimum solution from Metfi. On the other extreme, newcomers such as junior companies are aching for different types of supervision and maintenance services. There are profitable ongoing service contracts, which can vary from two to three years length till continuous deals. Usually these include predefined visit to the site and basic maintenance. A major benefit is, along the closer customer relationship, that Metfi can anticipate the customer needs and offer, for example, modernization services.

As well as Clatec, also Metfi has always possessed some service elements in its offering, namely design services, while the main emphasis has long been in its advanced technologies. The development path seems to follow Clatec’s in certain key points, such as acquisitions, in-house research, and organic growth. Metfi has long considered its products as solutions, but the focus seems to have been on closing single deals. Lately, the company has set ambitious growth targets for service, forming a clear need to develop its service offering. Now, while the delivery sizes have grown, the direction is more in the product life cycle models, including service contracts. Optimization services and environmental updates are the top priority among the customers, while also outsourcing of maintenance has become more common.

Metfi’s current offering composition

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 source of revenue. Again, as with the Clatec case, the majority of the listed service types are SSC’s by their nature. However, there are some differences. According to the interviews, the utilization of this service portfolio depends heavily on the division, and thus, the customer’s markets. For example, a recent acquisition of a maintenance-specialized service company has strengthened the potential for offering maintenance contracts for one division’s customers. In another division, there have been developed seven service structures.

Table 5. Metfi’s current service portfolio with author added SSP/SSC classification

Component services (SSP/SSC)	Expert services (SSC)	Equipment and plant upgrade services (SSC)	Operation and maintenance (SSC)
Spare and wear parts (SSP)	Plant audits	Process and equipment optimization	Preventive maintenance
Component repair services (SSP)	Plant and equipment inspections	Plant modernization	Operational maintenance
Stock management (SSC)	Operation consultation Start-up support Training Research and analysis services	Installation and start-up services	Operation and maintenance training

Currently, a topical issue in the case company agenda is to productize service concepts in order to widen the offering. Taking account Metfi’s customer industries, service cannot be predefined products designed at the headquarters. There are, however, certain readily specified but flexible

service structures. The final offering is then co-created on the basis of these structures with a customer to match his certain needs. An interviewee told an apt metaphor:

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

One of the main factors slowing down the development of services might be Metfi employees’ mind sets. The service organization is divided into the three divisions and there are some communicational differences between these units. For example, the idea of product life cycle management has been understood rather differently:

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

This reflects to the old way of thinking of technology as the focal offering element. As with the customers, a part of own personnel also think that technology is their key competitive advantage and services are something not worth of developing. A short but descriptive comment arose from the data:

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

As with Clatec, there have been some inquiries about more comprehensive solutions with heavy financial focus, for example full service BOOT projects. However, the company has not yet made any steps towards developing BOOT business model. Instead, Metfi perceives growth opportunities especially within comprehensive service agreements, the improvement of production efficiency, spare parts deliveries, modernization work, and training, as well as research and testing services. But there remains a challenge for Metfi, as the markets have to be self-created for service contracts.

Proposed framework for service offering

On the basis of the conceptual framework derived from the literature review and findings from the two empirical cases, we now propose a revised framework (Figure 1) for service offering in the context of solution marketing. The proposed framework includes three kinds of elements: physical, services, and value elements. These can be located on the continuum between traditional and co-creation elements; physical elements is the first box while the following four boxes constitute the service elements. The value element is described in the framework as benefit and risk sharing. Furthermore, it can be seen that in the both cases of Clatec and Metfi there is a continuum in the scope of solutions from standardized product solutions to more customized collaborative solutions. Customers of the case companies have different needs and that directs the companies to offer different degrees of solution completeness. In other words, the amount which the supplier takes control over the customers business/process varies on the customer characteristics. Next, we describe the framework in the light of our empirical case evidence.

Physical elements are the machinery included in the service offering. In the case companies, that is the proprietary equipment and possibly some auxiliaries. The services elements can be divided further into service categories. The simplest services are services supporting the product (SSP), which relate closely to the product itself. In the case companies SSP’s are e.g. spare parts, maintenance, and installation services. These kinds of services are quite standard in nature and applied very often as a part of deliveries. Services supporting the client (SSC) include in the case companies e.g. employee training and consultation services and demand more collaboration during the offering creation and the customer relationship. The basic product solutions, depicted below in Figure 1, do not include extensive SSC services. More examples on SSP and SSC services can be found in Table 4 and Table 5.

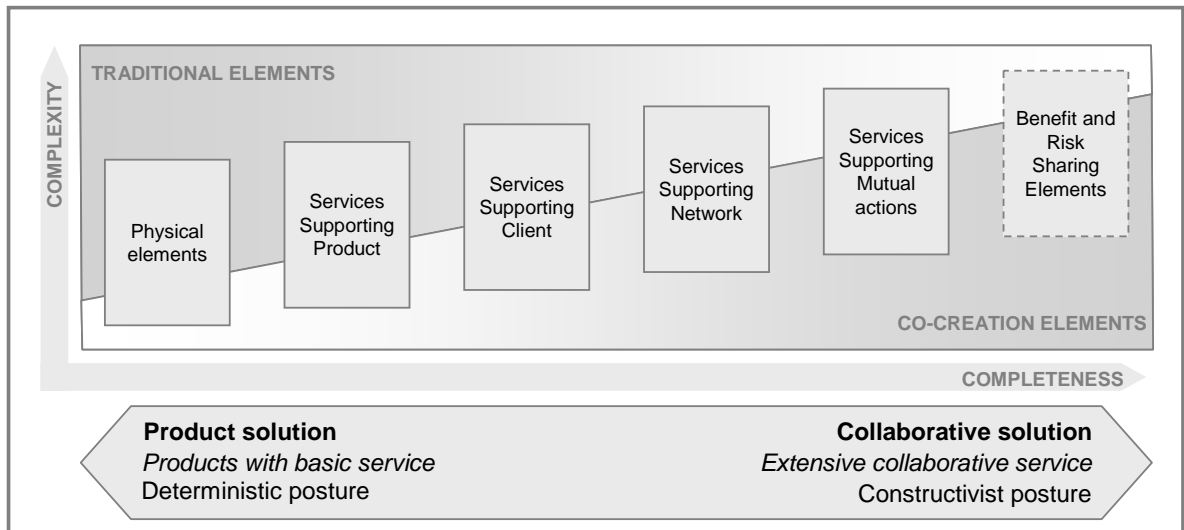


Figure 1. Revised framework for a service offering based on the case findings

An example of the services supporting the clients network (SSN) in Clatec is a situation, where Clatec enters to a dialogue with environmental legislation authorities in order to gain better position in the tendering phase or to make the investment possible at all. According to one of Clatec's manager:

“In some countries, where the opening of a customer's site require certain environment clarifications and permissions ... we can provide documents that proof our equipment is able to minimize or diminish the unwanted detrimental materials.”

This way Clatec serves its customers, by delivering evidence proving that its solutions can outperform the regulations in terms of e.g. energy saving and handling of detrimental materials. In the future, Clatec expects tightening environmental legislation will increase the demand for such services. There is also a SSN-type of service recognizable in the Metfi case. Junior customers with no notable business history use Metfi's reputation as a well-known supplier when they need to convince the financiers about their project's vitality. Thus Metfi indirectly influences customer's network by agreeing to participate in a certain “*letter of understanding*” document.

“For juniors, it is significant to be able to point out a trustworthy collaboration partner, especially if the financing is hanging in the balance.”

The above described three service categories are presented also in the previous literature. This study has shown that there can be recognized also a fourth services category. Services supporting mutual action (SSM) include seller actions that will benefit both the seller and the client in a long-run business relationship. The Clatec case provides evidence from this kind 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.”

In the Metfi case, this type of mutual benefiting can be found in special company organized conferences held once in every three years for its customers. There the customers and other actors can network and share information about success stories in their process development. These conferences provide Metfi accurate insights on possible development needs customer face in everyday operations. Besides the development needs Metfi can also spot rumors on new actors and project in the industry during the informal conversations. The forum helps also to sell new technology for current customers because of customer self-presented success stories. Thus, it offers

information on technological possibilities for customers and benefits both the buyer and the seller (SSM). Here is a brief comment on the importance of these conferences:

“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.”

In the more complete offering, where Clatec takes on the operation of a certain client’s classifier plant, the pricing is usually arranged according to a dollar per ton ideology. In these situations, the benefit and risk sharing element could be utilized. That means that Clatec together with the client set the limits for target results and if the process is more efficient, the seller will receive a certain percentage of these extra profits and vice versa. Our case evidence supports this kind of benefit and risk sharing element also in the Metfi case, but considering Metfi’s current offering, the time might not be yet for these conversations. Furthermore, neither Clatec has yet been able to negotiate right terms for this, as clients are usually much more interested in the risk sharing but do not want to hear about sharing the benefits. According to an interviewee:

“There could be utilized a bonus and a penalty kind of benefit and risk sharing deals. In a recent sales negotiation both Clatec and the customer agreed on the penalty part. But it ended just like many other cases; as long as the deal covers only penalty for the supplier it is tempting for the customer but when we speak about bonuses the conversation is over ... It takes time and very close partnership between the parties. Luckily these kind of win-win models are being developed and there are examples of success in this kind of benefit and risk sharing contracts.”

As a next step from operating & maintenance service Clatec plans to provide to its customers full-service BOOT (Build-Own-Operate-Transfer) contracts. In these contracts Clatec takes care of planning, financing, building, owning, and operating of the classifier plant. For now, the BOOT operations in Clatec are in the state of planning. The magnitude of finance aspects and risks related to this kind of business are still quite a challenge for a relatively small supplier. Being considerably larger company, Metfi might hold better resources for BOOT contracts, but since the development of the whole service ideology is still in its early phase, this kind of offering is not topical at this moment.

When analyzing the two case companies, we can see a continuum in the degree of completeness of an offering. Product solutions are standardized products and supporting services, which require less collaboration between the seller and the client. In these solutions the completeness of an offering is relatively low, leaving more additional work to the client. Also in many cases, the offering strategy utilized by the seller can be described as a deterministic posture. In the other end are collaborative solutions, where the seller takes responsibility of a certain process of the client and both the complexity and the completeness of an offering are high. In these collaborative solutions the seller and client will co-create the offering and thus a constructivist offering posture is utilized. Our case has shown that the third proposed element in the conceptual framework, control posture, does not fit in the mind set of a solution provider.

Conclusions and managerial implications

In this paper we focused on examining solution provider’s service offering elements and their formulation. In the following, the two research questions set in the beginning of this paper are revisited. We also present managerial implications derived from the study results.

The first research question was: **What are the elements of a solution provider’s service offering?** We started with construction of a conceptual framework based on reviewed literature. With this framework we conducted an empirical case study to gain empirical evidence. Based on a literature review and empirical findings from the two case studies, we found that the solution provider's service offering can be constructed through four different service elements that are constructed to complement the physical element: 1) services supporting the product (SSP); 2) services supporting the client (SSC); 3) services supporting the clients network (SSN); and 4) services supporting

mutual action (SSM). Additionally, in the most complete version of a service offering, elements related to sharing the benefits and risks of the supplier-customer relationship may also be included. The result is well lined with the previous literature. The SSP, SSC, and SSN service elements have been presented before (see e.g. Cova and Salle, 2008) and based on our cases their role is justified. Furthermore, the case analysis led us to introduce a fourth service element into the service offering: services supporting mutual action (SSM). SSMs are a result of co-creating the offering as they deliver additional value to both parties in the long run. However, SSMs are quite unusual in the case companies.

The second research question was: **How is the service offering of a solution provider constructed?** Based on the empirical findings from the two case studies supported by the previous literature, we found that there is a continuum in the degree of completeness of an offering (see Penttinen and Palmer, 2007). The more a supplier takes control and responsibility over a customer's process, the more complete and complex an offering is. A solution provider can take either a transactional role (deterministic posture, low completeness) or a collaborative role (constructivist posture, high completeness) in the offering creation. In transactional role, the solution is usually based on products with basic supporting services. In the other extreme, a supplier has extensive collaborative role in operating or even owning a customer's process. This supports Penttinen and Palmer (2007) who have suggested that as companies are moving from basic offering to more complex solutions, the form of buyer-seller interaction also changes from transactional to relational relationship. Furthermore, our cases showed that the third proposed element in the conceptual framework, control posture (Skaates and Tikkanen, 2003), does not fit in the mind set of a solution provider.

We found also evidence that understanding the customer process and having a true collaborative attitude is vital for delivering profitable solutions. Furthermore it was stated, that understanding the process is not always enough – solution provider should make sense of the customers business. Service organizations differ between the two cases. In Clatec, the service function is organized under a separate service business unit, which can lead to successful development of service offering (Oliva and Kallenberg, 2003). Metfi, on the other hand, has divided its service functions into the three separate divisions, and thus benefits from closer internal relationships between equipment sales and service. This is in line with the notion that suppliers should pay more attention to the relational processes in order to deliver more effective solutions at profitable prices (Tuli, Kohli and Bharadwaj, 2007). It also supports the idea of Edvardsson, Holmlund-Rytkönen and Strandvik (2007), who state that when trying to convince a new buyer, it's important to have a relevant basic service offering, but more important is the ability and interest to adapt and develop a custom offering together with the buyer.

The main managerial implication raised from this study is the role of customer collaboration. Services constitute increasing proportion of the turnover and profitable management of intangible services globally requires a lot of effort. This study gives support in organizing a service offering, especially for solution providers in process equipment industry by characterizing different element in the service offering. It is still obvious that the elements are not enough by themselves for successful service business. The case company Clatec has actively developed its offering towards service orientation and has always relied on customer-orientation, but it seems that the development of their service offering should be even more co-created with customers. Metfi has strong motivations to increase their service functions and participate in customer's business with life time solutions. Both of the suppliers need to focus more on their customer relationships and on the overall package of their hardware and service combinations. Good communication and trust with the customer is needed if there are hopes for benefit sharing agreements. This cannot be achieved without strong collaboration and co-creation of the offering from the beginning. Also, it seems that the service aspect should be paid more attention when thinking about the organization structure. If the sales and service are separated functions, building collaborative solutions can prove to be difficult.

Limitations and future research

Our paper concentrates on service offering in the solution marketing. It derives empirical evidence from two case companies. The results are heavily context bound which must be remembered when making any generalizations from the study results. However, we have been as thorough as possible when analyzing the empirical data to deliver fresh insights into the literature of solution marketing in the form of service offerings. In the next phase of this study we will conduct a few more case studies to obtain more empirical evidence and support for our framework. Especially the new SSM element has to be further explained and justified.

We focus here more on theory construction than on theory testing. This leaves a gap for testing and possible refining the proposed service offering framework with multiple cases or a survey study. There remains a need to widen the research scope and to study the concept of solution offering more thoroughly. Furthermore, in the construction phase of an offering, the co-creation element proposed by the service-dominant logic should be studied further (see e.g. Cova and Salle, 2008). As the solutions are usually complex bundles of products and services, there are plenty to study. For an industrial solution provider in the harsh global competition, managing the service business efficiently seems to be a victorious way of securing profitable sales against dumping prices.

References

- Amit, R. and Zott, C. (2001), "Value Creation in e-business," **Strategic Management Journal**, Vol 22 (June/July), 493–520.
- Anderson, J.C. and Narus, J.A. (1995), "Capturing Value of Supplementary Services," **Harvard Business Review**, 73 (January/February), 75–83.
- Anderson, J.C. and Narus, J.A. (1999), **Business Market Management – Understanding, Creating and Delivering Value**. Upper Saddle River (NJ): Prentice Hall.
- Araujo, L. and Spring, M. (2006) "Products, services and the institutional structure of production," **Industrial Marketing Management**, Vol 35 No 7, 797–805.
- Arto, K., Wikström, K., Hellström, M. and Kujala, J. (2007), "Impact of Services on Project Business", proceedings of the IRNOP VIII Conference, Brighton, U.K.
- Bonaccorsi, A., Pammolli, F. and Tani, S. (1996), "The changing boundaries of system companies," **International Business Review**, Vol 5 (December), 539–560.
- Boyt, T. and Harvey, M. (1997), "Classification of industrial services: A model with strategic implications," **Industrial Marketing Management**, Vol 26 (July), 291–300.
- Brady, T., Davies, A. and Gann D.M. (2005), "Creating value by delivering integrated solutions," **International Journal of Project Management**, Vol 23, 360–365.
- Cornet, E., Katz, R., Molloy, R., Schädler, J., Sharma, D. and Tipping, A. (2000), **Customer Solutions: From Pilots to Profits**, Booz Allen & Hamilton, New York.
- Cova, B. and Salle, R. (2008), "Marketing solutions in accordance with the S-D logic: Co-creating value with customer network actors," **Industrial Marketing Management**, Vol 37 No 3, 270–277.
- Cova, B. and Salle, R. (2007), "Introduction to the IMM special issue on 'Project marketing and the marketing of solutions' A comprehensive approach to project marketing and the marketing of solutions", **Industrial Marketing Management**, Vol 36, No 2, pp. 138–146.
- Cova, B., Ghauri, P. and Salle, R. (2002), **Project Marketing: Beyond Competitive Bidding**, Wiley, Chichester.
- Cova, B., Döntenwill, E. and Salle, R. (2000), "A Network Approach to the Broadening of the Offering: Beyond Added Services," proceedings of the 16th IMP Conference, Bath, U.K.
- Cova, B. and Hoskins, S. (1997), "A twin-track networking approach to project marketing," **European Management Journal**, 15 (October), 546–556.
- Cova, B., Mazet, F. and Salle, R. (1994), "From competitive tendering to strategic marketing: an inductive approach for theory-building," **Journal of Strategic Marketing**, Vol 2 (March), 29–47.
- Cova, B., and Holstius, K. (1993), "How to create competitive advantage in project business", **Journal of Marketing Management**, Vol 9 No 2, pp. 105–121.

- Davies, A., Brady, T. and Hobday, M. (2007), "Organizing for solutions: Systems seller vs. systems integrators", **Industrial Marketing Management**, Vol 36, No 2, pp. 183-193.
- Dubois, A. and Araujo, L. (2007), "Case research in purchasing and supply management: Opportunities and challenges", **Journal of Purchasing and Supply Management**, Vol 13 No 3, pp. 170–181.
- Dubois, A. and Gadde, L-E. (2002), "Systematic combining – an abductive approach to case research", **Journal of Business Research**, Vol 55 No 7, pp. 553–560.
- Dyer, W.G. Jr, Wilkins, A.L. (1991), "Better Stories, Not Better Constructs, to Generate Better Theory: A Rejoinder to Eisenhardt", **Academy of Management Review**, Vol 16, No 3, pp. 613-619.
- Edvardsson, B., Holmlund-Rytkönen, M. and Strandvik, T. (2007), Initiation of business-to-business relationships, Proceedings of the 23rd IMP Conference, Manchester.
- Eisenhardt, K.M. and Graebner, M.E. (2007), "Theory Building from Cases: Opportunities and Challenges," **Academy of Management Journal**, Vol 50 No 1, 25–32.
- Eisenhardt, K. M. (1989), "Building theories from case study research", **Academy of Management Review**, Vol. 14, No 4, pp. 532-550.
- Ford, D., Berthon, P., Brown, S., Gadde, L-E., Håkansson, H., Naudé, P., Ritter, T., and Snehota, I. (2002), **The Business Marketing Course – Managing in Complex Networks**. Chichester: Wiley.
- Grönroos, C. (1987), "Developing the Service Offering – a Source of Competitive Advantage," in **Add Value to Your Service**, Surprenant, C. ed., Chigago (IL): American Marketing Association, pp. 81–85.
- Grönroos, C. (2000), **Service Management and Marketing – A Customer Relationship Management Approach**. Chichester: Wiley.
- Halinen, A. and Törnroos, J-A. (2005), "Using case methods in the study of contemporary business networks", **Journal of Business Research**, Vol 58, pp. 1285–1297.
- Hedman, J. and Kalling, T. (2002), **IT and Business Models: Concepts and Theories**. Malmö: Liber Ekonomi.
- Kaplan, R.S. and Norton, D.P. (2000), "Having Trouble with Your Strategy? Then Map It," **Harvard Business Review**, Vol 78 (September/October), 167–76.
- Kotler, P. (2003), **Marketing Management**, 11th edition. Upper Saddle River (NJ): Prentice-Hall.
- Kovács, G. and Spens, K.M. (2005), "Abductive reasoning in logistics research", **International Journal of Physical Distribution and Logistics Management**, Vol 35 No 2, 132–144.
- Lusch, R.F. and Vargo, S.L. eds. (2006), **The Service-dominant Logic of Marketing: Dialog, Debate, and Directions**, M.E.Sharpe, Armonk, New York.
- MacKenzie, H.F. and Hardy, K.G. (1996), "Manage your offering or manage your relationship?," **Journal of Business & Industrial Marketing**, Vol 11 (6), 20–37.
- Mathieu, V. (1999), "Product Services Portfolio: Strategic and Marketing Insights". Paper presented at the 15th IMP Conference, Sept, Dublin, Ireland.
- Matthyssens, P. and Vandenbempt, K. (2008), "Moving from basic offering to value-added solutions: Strategies, barriers and alignment," **Industrial Marketing Management**, Vol 37 No 3, 316–328.
- Normann, R. and Ramirez, R. (1993), "Designing interactive strategy: From value chain to value constellation," **Harvard Business Review**, Vol 71 (July/August), 65–77.
- Normann, R. (2001), **Reframing Business – When the Map Changes the Landscape**. Chichester: Wiley.
- Oliva, R. and Kallenberg, R. (2003), "Managing the transition from products to services," **International Journal of Service Industry Management**, Vol 14 No 2, 160–172.
- Payne, A.F., Storbacka, K. and Frow, P. (2008), "Managing the co-creation of value," **Journal of the Academy of Marketing Science**, Vol 36 No 1, 83–96.
- Penttinen, E. and Palmer, J. (2007), "Improving firm positioning through enhanced offerings and buyer–seller relationships," **Industrial Marketing Management**, Vol 36, 552–564.
- Penttinen, E. and Rajala, R. (2004), "The Role of IT in the Formation of a Company's Offering – A Framework for Empirical Analysis," proceedings of the European Conference on Information Systems (ECIS), June, Turku, Finland.
- Sawhney, M. (2006), Going Beyond the Product: Defining, Designing, and Delivering Customer Solutions, in Lusch, R.F. and Vargo, S.L. eds. (2006), **The Service-dominant Logic of Marketing: Dialog, Debate, and Directions**, M.E.Sharpe, Armonk, New York, pp. 365–380.

- Skaates, M.A. and Cova, B. (2004), "Marketing Industrial Project-Related Services Internationally: A Multi-Lingual Literature Review," **Advances in International Marketing**, Vol 15, pp. 149–174.
- Skaates, M.A. and Tikkanen, H. (2003), "International project marketing: an introduction to the INPM approach," **International Journal of Project Management**, Vol 21 (October), 503–510.
- Stremersch, S., Wuyts, S. and Frambach, R.T. (2001), "The Purchasing of Full-Service Contracts: An Exploratory Study within the Industrial Maintenance Market," **Industrial Marketing Management**, Vol 30 No 1, pp. 1–12.
- Tuli, K.R., Kohli, A.K., Bharadwaj, S.G. (2007), "Rethinking Customer Solutions: From Product Bundles to Relational Processes", **Journal of Marketing**, Vol 71 No 3, pp. 1–17.
- Ulaga, W. (2003), "Capturing value creation in business relationships: A customer perspective," **Industrial Marketing Management**, Vol 32 (November), 677–693.
- Van der Valk, W. (2007), Buyer-Seller Interaction Patterns During Ongoing Service Exchange, Doctoral Dissertation, Erasmus Research Institute of Management, Erasmus University Rotterdam, the Netherlands.
- Vargo, S.L. and Lusch, R.F. (2004), "Evolving to a New Dominant Logic for Marketing," **Journal of Marketing**, Vol 68 No 1, 1–17.
- Wikner, S.S., and Andersson, P. (2004), "Creating Business Offerings – The Case of Integrated Solutions in Manufacturing Firms," Paper presented at the 20th IMP Conference, Sept, Copenhagen, Denmark.
- Yin, Robert (2003), **Case Study Research: Design and Methods**, 3 ed, Sage Publications, Thousand Oaks.