From product to total solution: 
An enriched channel perspective

Paul Matthyssens & Tine Buyl

RESEARCH PAPER 2005-029
November 2005

University of Antwerp, Prinsstraat 13, B-2000 ANTWERP, Belgium
Research Administration – room B.213
phone: (32) 3 220 40 32
e-mail: joeri.nys@ua.ac.be

The papers can be also found at our website:
www.ua.ac.be/tew
(research > working papers)

D/2005/1169/029
From product to total solution: An enriched channel perspective

Paul Matthyssens\textsuperscript{a,b,*}, Tine Buyl\textsuperscript{a}

\textsuperscript{a}Department of Management, University of Antwerp, Belgium

\textsuperscript{b}Department of Marketing Management, Erasmus University Rotterdam, The Netherlands

* Corresponding author. Department of Management, University of Antwerp, Prinsstraat 13, 2000 Antwerp, Belgium. Tel.: +32 32755063; fax: +32 32755079.

E-mail address: paul.matthyssens@ua.ac.be

Submitted to Industrial Marketing Management

Paul Matthyssens, MBA, PhD, is Professor of Competitive Strategy at the Department of Management, University of Antwerp (Belgium) and Professor of Business-to-Business Marketing at the Department of Marketing Management, Rotterdam School of Management, Erasmus University (The Netherlands). His research, teaching and consultancy focuses on market strategy in business markets, international marketing strategy and purchasing strategy.

Tine Buyl, MA, is Research Assistant at the Department of Management, University of Antwerp (Belgium). Her research is oriented towards market strategy and strategy implementation in business markets.
ABSTRACT

In the last decade, a fundamental phenomenon came to the fore in the business environment: more and more companies are offering total solutions to their customer instead of standardized products or services. Although this trend has already been studied extensively in literature, little has been said about the impact of this phenomenon on the supplier’s channel management. This article develops propositions concerning the influence of a total solutions strategy on a company’s channel management, rooted on an extensive literature review and case-based research in the Belgian industrial market.

Keywords: Total solutions; Channel management; Channel relationships; Relationship management

1. INTRODUCTION

Industrial marketers seek to differentiate their offerings by adding value elements. That way, they build integral solutions: “In all sorts of industries, companies that traditionally have made and sold stand-alone products are changing their strategies. They are creating high-value solutions by integrating various products and services (...) to solve a complete customer problem.” (Foote et al, 2001, p. 84). This trend can be seen as a reaction to the decline of sustainability of former competitive advantages (Kumar, 2004). As we will suggest
in this article, the decline in sustainability is mainly caused by two factors: the increasing rivalry in industrial markets and the changing customer preferences and value perception.

In the last decade, many authors have discussed the aforementioned trend, e. g. Brady et al (2005), Kumar (2004), Wikner and Andersson (2004), Lovelock et al (1999), Ovans (1997) and Anderson and Narus (1995). Nevertheless, little literature has been published about the effect of this new strategy on a company’s channel management. Still, it is evident that the channel management will need to be adapted when offering total, fully tailored customer solutions instead of a standardized product. This article intends to bridge this gap in the B2B marketing literature by developing propositions about the impact of a total solutions strategy on a company’s channel management. For this purpose, two aspects of channel management are considered in this article: channel design and channel relations. More concretely, this study intends to clarify the following questions:

1. Does a company’s distribution channel undergo significant structural changes as a result of the adoption of a total solutions strategy?
2. Has a company’s intrachannel relationship management altered considerably after the adoption of a total solutions strategy?

The article is organized as follows. Section 2 highlights the approach of product augmentation and the offering of total solutions. The third section discusses the main dimensions of a company’s channel management. In the fourth section, a preliminary framework concerning the impact of a total solutions strategy on a company’s channel management is being developed. Section 5 describes the case-based research that has been executed in the Belgian industrial market. In the sixth section, propositions are being
developed. The conclusions provide recommendations for managers and suggest future research avenues.

2. TOTAL SOLUTIONS

The creation of sustainable competitive advantages has been the subject of a significant amount of research in the last 10 to 15 years. Many authors find that former successful strategies become outdated in an increasingly shorter period of time (Christensen, 2001; Slywotzky, 2000; D’Aveni, 1994). There are two reasons for this evolution. Firstly, the dynamism in the industrial market has risen enormously in the last decades. Competition has increased significantly because of technological changes and globalization (hypercompetition). As a result, products and services are becoming commodities ever faster. (Kim and Mauborgne, 2004; Kumar, 2004; Prahalad and Ramaswamy, 2003; Lovelock et al, 1999; Ovans, 1997; Rangan and Bowman, 1992).

Secondly, the customer’s value perception changes over time. When a customer obtains more experience concerning a product or service, he or she considers it to be less valuable (Khalifa, 2004; Moore, 1993). Moreover, customers in industrial markets are increasingly becoming demanding, thereby pushing suppliers for solutions which better fit their specific problems. According to Vandermerwe (1993:47), customers are more discriminating about what they want. They are also willing to go to a competitor if their supplier cannot deliver exactly what they expect. The customer’s expectations are quickly becoming “more holistic, complex and diverse”.
These two factors (increasing rivalry and imitation and changed customers’ value perception) have become threats to the sustainability of competitive advantages in industrial markets. A possible approach to regain the competitive advantage is providing integral, total solutions to the customer’s problems instead of single, standardized products or services (Brady et al, 2005; Kumar, 2004; Lovelock et al, 1999; Ovans, 1997; Vandermere, 1993). This change in strategy is usually a two-step process. In the first step, the supplier “augments” the core product/service with supplementary services to increase the added value for the customer, the so-called evolution to ‘product plus’ or ‘augmented product’ (Colgate and Alexander, 2002; Lovelock et al, 1999). In other words, the supplier bundles its core product with “services, advertising, customer advice, financing, delivery arrangements, warehousing, and other things that people value.” (Payne and Holt, 2001: 163) The main benefits of this bundling strategy are the increase in product differentiation and the enhanced customer value (Paun, 1993). Nevertheless, this evolution to ‘product plus’ is being criticized by some authors. For instance, Normann (2001) claims that this approach cannot help suppliers in realizing sustainable competitive advantages, for this strategy can easily be imitated by competitors. Also Mathieu (2001) states that adding traditional services is no longer enough in order to ensure a competitive advantage.

The second step involves the transition to a real total solutions strategy. Two main characteristics discern a genuine integrated total solution from a ‘product plus’. In the first place, the customer’s need gets a central role. To be able to offer total solutions, the supplier has to shift from a product-centric approach, where everything begins and ends with the existing core product, to a customer-centric approach, where the customer’s problems are the starting point (Kumar, 2004; Sawhney et al, 2004; Prahalad and Ramaswamy, 2003; Normann, 2001). Secondly, whereas the ‘product plus’ is usually quite standardized, the total
solution has to be fully adapted to the needs and wants of every individual customer (Boyt and Harvey, 1997). This way, the solution becomes a tailor-made project (Cova et al, 2002).

The offering of this kind of unique total solutions has some important benefits to suppliers as they are able to (1) differentiate themselves from competitors by providing added customer value (Mathieu, 2001; Lovelock et al, 1999; Ovans, 1997), (2) enhance the customer’s satisfaction and loyalty and (3) reduce the total operating cost, because not all supplementary services are offered to all customers (Boyt and Harvey, 1997).

When a supplier shifts to a strategy of total solutions, it has to take into account some important implications. Firstly, if the supplier manufactured products (and no services) beforehand, it will experience an augmentation in the amount of intangibles, which often requires a different kind of marketing (Payne and Holt, 2001; Vandermerwe 1999 and 1993; Anderson and Narus, 1995). Secondly, a thorough customer focus is needed to be able to develop customized solutions for every individual customer. Brady et al (2005: 362) state: “Becoming solutions-focused means that providers have to understand how value is created through the eyes of the customer.” A meticulous analysis of the customer’s needs, wants and life cycle is imperative (Kumar, 2004; Sawhney et al, 2004; Vandermerwe, 2004; Wikner and Andersson, 2004; Ford et al, 2003; Foote et al, 2001; Normann, 2001). Thirdly, the supplier’s offering becomes more complicated and project-based. This mostly requires a change in the company’s internal structure. A higher degree of internal coordination and cooperation can help the supplier in offering integrated solutions (Brady et al, 2005; Cova et al, 2002; Mathieu, 2001; Lovelock et al, 1999; Boyt and Harvey, 1997; Anderson and Narus, 1995).

3. CHANNEL MANAGEMENT
As already has been mentioned, adopting a total solutions strategy will provoke several changes in the way a company is managed. The further proceeding of this article concentrates on the impact of a total solutions strategy on a company’s channel management. Indeed, a major focus on distribution channel management is vital for every industrial market player, since it is only through distribution (either by a distribution channel or directly to the customer) that a supplier can make its products available for use or consumption (Stern et al, 1996). This section outlines two main dimensions of channel management: channel design on the one hand and relationship management on the other.

3.1 Channel design

In industrial markets, suppliers are paying increasingly more attention to the distribution channels they select to gain a competitive advantage. Thereby, channel design is a critical element of marketing strategy (Stern et al, 1996). Easingwood and Coelho (2003) describe three possible approaches to reach the customer: a traditional direct channel (face-to-face customer contact), direct marketing (by letters, telephone, email) and by intermediate parties (e.g. distributors).

Changes in the competitive strategy of the firm might provoke a drastic change in a company’s existing channel design. Indeed, Anderson et al (1997: 59) claim that “the firm’s overall strategic direction must guide changes in [distribution] channels”. For instance, when the complexity of the offering increases with the introduction of a new, high tech product, intermediaries might not have the necessary skills to serve customers. As such, a dual channel might result: a direct channel will supplement the existing indirect one.
Rangan et al (1995) describe how channels go through a transition. They focus on three trends. In a hybrid channel (1), the tasks of the different channel participants are redistributed and/or some marketing tasks might be executed by supplier and intermediary jointly. A multiple channel strategy (2) entails that a supplier uses several distribution channels at the same time. In this way it offers a range of channel options to customers. The third trend Rangan et al (1995) describe is shorter channels (3). This occurs when a supplier omits its intermediaries and uses a direct channel to reach its customers.

### 3.2 Relationship management

A second aspect of channel management that is considered in this article is a company’s relationship management, since the performance of each firm partially depends on the actions of its channel partners (Anderson and Narus, 1990). The relationship between a supplier and its customers is extensively researched in the literature on Customer Relationship Management (CRM). However, less attention has been paid to the (collaborative) relationships between suppliers and resellers, although supplier-reseller partnerships may add significant value for both companies (Weber, 2001). In accordance with Weber (2001: 88), this article distinguishes two dimensions of relationship management: relationship quality, or “common characteristics of successful partnerships” (1), and relationship control, or “perspectives to more effectively operationalize partnerships” (2).

**Relationship quality**
The expression ‘relationship quality’ has been used frequently in buyer-seller literature. However, no agreed upon set of defining relationship attributes has yet been identified in a formal definition of this expression (Huntley, 2005; Naudé and Buttle, 2000). Walter et al (2003) state that different dimensions need to be combined to an overall relationship quality measure. Referring to Kumar et al (1995) and Morgan and Hunt (1994), we believe trust and commitment to be crucial concepts in order to describe relationship quality. Walter et al (2003) and Naudé and Buttle (2000) add another construct: satisfaction. Figure 1 depicts these main dimensions of relationship quality. In the further proceeding of this article, we consider the quality of both supplier-customer and supplier-reseller relation.

Relational commitment can be explained as “a kind of lasting intention to build and maintain a long-term relationship” (Walter et al, 2003: 160). Exchange parties identify relational commitment as key to achieving valuable outcomes for themselves (Morgan and Hunt, 1994). Therefore, relational commitment is considered to be a positive determinant of the relationship quality.

Trust is defined as the “willingness to rely on an exchange partner in whom one has confidence” (Ganesan, 1994). Trust is believed to be the “cornerstone of the strategic partnership” (Spekman, 1988: 79). It enhances relationship quality, because trust forms the belief, attitude or expectation that the relationship partner’s behavior or its outcomes will benefit the trusting party (Walter et al, 2003). Moreover trust also positively influences relational commitment: indeed, trust is so highly valued in a relationship that parties will want to commit themselves (Morgan and Hunt, 1994). On the other hand, the opposite relation is also true: when an exchange partner shows it is strongly committed to the relationship (e.g. by making idiosyncratic investments), trust in this partner is enhanced (Ganesan, 1994).
Satisfaction is identified as “a positive affective state resulting from the appraisal of all aspects of a firm’s working relationship with another firm” (Anderson et Narus, 1990: 45). Any dissatisfaction in a relationship will tend to trigger the termination of that relationship (Naudé and Buttle, 2000). Furthermore, Ganesan (1994) claims that satisfaction with the outcomes of a relationship will enhance the commitment to that relationship on the one hand and the trust in the relationship partner on the other hand.

<Figure 1 about here>

Relationship control

The second dimension of relationship management this article discusses is relationship control or coordination. Yilmaz et al (2005: 235) claim that “a central theme of channels of distribution theory and research is that channel firms need to develop policies and programs to evoke and maintain desired forms of behaviors from independent partners in the distribution network.” Suppliers use several governance mechanisms to try to control their independent resellers (Gilliland, 2004) and to protect themselves against opportunistic behavior from both resellers and customers (Heide and John, 1992).

Heide and John (1992) suggest that relational norms (flexibility, information exchange and solidarity) should be adopted to safeguard against exploitation. Nunlee (2005) emphasizes the importance of information exchange and reputation of the relationship partners. Jap and Ganesan (2000) add two more coordinating mechanisms: both parties’ relationship-specific investments (RSIs) and explicit contracts. These three coordinating
mechanisms (relational norms, RSIs and explicit contracts) are applied to control supplier-
reseller as well as supplier-customer relationships.

Figure 2 gives an overview of the control mechanisms a supplier can use to coordinate its channel relationships.

<Figure 2 about here>

4. PRELIMINARY FRAMEWORK

In the previous two sections, some ideas are presented about the adoption of a total solutions approach by suppliers one the one hand and a company’s channel management on the other hand. Figure 3 depicts these ideas in a preliminary framework. This framework, rooted on an extensive literature review and reasoning on the probable impact of total solutions on channel management, was the basis for the case-based research outlined in the next section.

This figure illustrates the main reasons for a shift to a strategy of providing total solutions instead of standardized products: a decline in the sustainability of competitive advantage because of increased industry rivalry and declined customer’s value perception. Further on, figure 3 suggests that the adoption of this new strategy will have an effect on the company’s channel management. Firstly, the company’s channel design will undergo some changes and secondly, the supplier experiences an alteration in its relationship management.

<Figure 3 about here>
4.1 Impact of total solutions on channel design

When offering total solutions to a customer instead of a standardized product, a company might be obliged to make fundamental adaptations to its distribution channel design. As mentioned above, the total solution often comes as a tailor-made project. To begin with, this means that the customer is more directly involved in the developing process of its solution. Companies increasingly skip intermediate partners (distributors) to enhance the direct contact with the customer (‘disintermediation’ or the elimination of intermediate parties) (Mason et al, 2005; Payne and Frow, 2004; Prahalad, 1998; Tapscott, 1997). In this way, channels will get shorter. Anderson et al (1997) describe the ‘vertical compression’ which takes place in industrial markets.

Further on, when offering a completely tailored solution, the channel design should be adapted to the customer’s preferences, too. In some cases, it will be preferable to use a direct approach, while in other cases an indirect channel (using intermediaries) will be the better choice (e.g. when the total solution implies the combination of very diverse products or when the customer values close local service support). This means that a company that wants to adopt a total solutions strategy might benefit from a multiple channel strategy, i.e. offering a range of channel options to customers. Anderson et al (1997) state that multiple channels are most prevalent in fast-changing market environments. Rangan et al (1995) suggest using a planning grid to use the different channels in an optimal way during the different stages of the order cycle. Eventually, this might also lead to a hybrid channel. This kind of channel diversity pays especially if the environment is turbulent or if the customers’ preferences and needs are volatile (Easingwood and Coelho, 2003; Anderson et al, 1997).
4.2 Impact of total solutions on relationship management

Relationship quality

When offering total solutions, the quality of both supplier-customer and supplier-reseller relationship is affected. In the supplier-customer relationship, satisfaction for both parties is expected to be enhanced. The customer receives an offering that suits its specific problems and characteristics better and the supplier is able to regain its competitive advantage. Since satisfaction triggers both trust and commitment (Ganesan, 1994), the quality of the customer-supplier relationship is estimated to increase when providing total customer solution. Moreover, both customer and supplier are expected to be strongly committed to the relationship. Both parties invest time, effort and money in the solution, therefore both parties have a high stake in ensuring the relationship’s success.

In the supplier-reseller relationship, the estimated impact of total solutions on relationship quality is not that apparent. On the one hand, a total solutions approach implies an enhanced market orientation. This entails, according to Simpson et al (2001), an increased reseller perceived value of the relationship and consequently improves reseller satisfaction. The reseller’s RSIs also suggest a stronger commitment to the relationship. On the other hand, a total solutions strategy is expected to provoke a raise in direct distribution channels. Therefore, resellers might worry about being passed by. This could have a negative impact on their trust and commitment, and by consequence on the perceived relationship quality. Moreover, resellers mostly are reluctant to commit themselves because of the risks related with being overly dependent on a smaller set of suppliers (Spekman and Carraway, 2005).
**Relationship control**

The way a company controls and coordinates its (supplier-customer as well as supplier-reseller) relationships is affected by a total solutions approach, too. The supplier-customer relationship is characterized by an enhanced long-term orientation and strong commitment of both parties. Both parties are highly interdependent. According to Lush and Brown (1996), this kind of relationships is best coordinated by relational norms and not by explicit contracts. Furthermore, suppliers as well as customers make RSIs when using a total solutions strategy.

In the supplier-reseller relationship, the reseller mostly has to make RSIs, too. It has to adapt its operations to be able to distribute the total solutions of the supplier. In this relationship, relational norms, in particular continuous information exchange, is thought to be crucial, in order to convince the reseller that the supplier is committed to the relationship and that the reseller is not going to be disintermediated in the future (Jap and Ganesan, 2000). Since trust may not be high, explicit contracts which outline every detail of the relationship might be used as a coordinating mechanism.

**5. CASE-BASED RESEARCH**

**5.1 Research design**

To analyze the impact of a total solutions strategy on channel management, we performed a research based on case studies. A ‘case study’ is defined by Hartley (1994: 208-
9) as “a detailed investigation, often with data collected over a period of time, of one or more organizations, or groups within organizations, with a view to providing an analysis of the context and processes involved in the phenomenon under study.” Case-based research is an empirical and qualitative research methodology, designed to analyze problems in their real context, with consideration for the dynamism of the problem, and aimed at building a ‘mid-range theory’ (Pauwels and MatthysSENS, 2004; Eisenhardt, 1989). In our approach, case-based research is related to ‘iterative grounded theory’: both methods require a frequent overlap of data analysis with data collection to develop theory (Orton, 1997; Eisenhardt, 1989). During the research, we adopted a ‘systematic combining’ approach, in which the confrontation between theory and the empirical world is “more or less continuous throughout the research process” (Dubois and Gadde, 2002: 555).

Selection of the cases occurred on a theoretical basis, for the only argument to switch from single to multiple case study research (at the risk of losing depth) is “to create more theory-driven variance and divergence in the data, not to create more of the same” (Pauwels and MatthysSENS, 2004: 129). To increase theory-driven variance, we sampled cases with divergence in the area of sector (though always B2B), size (calculated as the number of employees in Belgium) and original orientation (physical products manufacturers vs. service providers). In the end, five cases were selected (table 1). All of them compete in the Belgian industrial market.

<Table 1 about here>

Data was collected by conducting in-depth interviews with the best-informed persons per case company (at least two persons per case). Functions from respondents ranged from
Product Marketing Manager (4) over Sales Support Manager (4), Communication & Training Manager (1), VP Marketing & Technology (1) and VP Operations Service Division (1) to Logistics Manager (1). These multiple interviews per case helped to enhance the internal validity and reliability of the research. In all, 17 in-depth interviews were held in two rounds. The first round of interviews included 12 interviews. After a period of data analysis and theoretical reflection, 5 additional interviews (1 for each case) were performed in a second round. This approach matches the one Dubois and Gadde (2002: 555) suggest: they found that “the researcher, by constantly going ‘back and forth’ from one type of research activity to another and between empirical observations and theory, is able to expand his understanding of both theory and empirical phenomena.”

At each interview round, a topic list drawn from the extensive literature review was used to structure the interviews. A transcript of the interviews was sent back to each of the contact persons to clarify the points that could lead to misinterpretation. Further triangulation was pursued by confrontation of this data with secondary data sources (publications received from the company itself, web sites, sales brochures, press releases, etc).

Data analysis was executed in two phases. The first phase involved a case-by-case analysis. Each case was studied profoundly, using both primary and secondary data sources, and confronted with the insights proceeding form the extensive literature review. In the second phase, a cross-case analysis was pursued. In this way, pattern-matching logic (Yin, 1994) was applied to reveal underlying patterns. Propositions were being developed. Table 2 summarizes the actions taken to enhance validity and reliability.

< Table 2 about here >
5.2 Case descriptions

Case ALPHA

ALPHA is a large compressor company in which we analyzed the business unit which specializes in smaller compressors (<90 kW). In 1965, ALPHA started producing naked compressors; the customer had to search for the related equipment with other suppliers. Gradually, it extended its product portfolio. Today, it offers completely integrated and customized installations to every individual customer. The reason for this transformation lies within the changed customer behaviour: the customer has lost its interest in the compressor itself and just wants to receive a certain amount of compressed air containing certain specifications. Moreover, ALPHA also experienced saturation in the compressor market. The market is being consolidated, resulting in an increased level of competition. Five years ago, ca. 10 players of the same size dominated the market. Now, all of these players are merging or being swallowed up.

The transformation process was accompanied by a series of internal changes. An increased emphasis was put on the services aspect, the required customer focus and the integration of formerly separate internal departments, such as the compressor and extension production lines. A profound training program on marketing and sales skills seemed indispensable to obtain a change in the employee’s mentality.

ALPHA’s channel design did not undergo many changes as a result of the total solutions strategy. The company already used a multiple channel approach to reach its
customers: direct and via distributors. Nevertheless, one of ALPHA’s Product Marketing Managers admitted that the level of direct customer contact has increased since offering total solutions. In spite of this evolution, ALPHA claims that its supplier-reseller relationship quality has improved. Distributor loyalty has augmented from only vis-à-vis ALPHA compressors to every aspect of ALPHA’s solutions (components, spare parts, etc.). An intensive information campaign from ALPHA and meticulous consideration for the distributors’ feedback has led to this increased relationship quality.

The supplier-customer relationship has gained in quality, too. ALPHA’s customers are happy with the extra services and are willing to commit themselves to the ALPHA solutions (and in consequence make RSIs). A high amount of information on the potential advantages of the total solutions is provided by ALPHA to convince its customers.

Case BETA

BETA, a relatively small company (38 employees), is a fuel distributor in both the B2B and the B2C sector. In the nineties, the company realized that the environment would be a highly important issue in the Belgian fuel sector in the future. From that moment on, distributors were prohibited to supply fuel if the customer’s fuel tank is not formally examined. Further on, BETA experienced an increased level of competition due to concentration in the fuel sector and a change in customers’ preferences, who wanted a higher level of comfort. BETA took advantage of these trends by commercializing its tank services (e.g., the installation and maintenance of tanks, tank examinations, advice, etc). This means that BETA transformed its offering from pure fuel commodities into a product plus. The original product (liquid fuel) remained however the main focus.
In the future, BETA plans to go further. The company wants to focus on the B2B sector, because it feels that companies are more interested in the added value a total solution offers. At this moment, the company already started the exploitation of diesel tanks and tank cards. In the near future, BETA intends to obtain a licence to distribute natural gas. In that way, the company wants to convert itself into a neutral energy distributor who can provide a total energy solution for its customers. The main thresholds concerning this transformation are the mentality change required from every employee (e.g., they now have to apply a new marketing approach, focusing on the specific needs of their customers) and the building of a sufficient degree of internal technical capabilities, such as expertise in the field of natural gas applications.

In the field of channel management, BETA experiences a shift in its distribution strategy. In the past, BETA sold its fuel products mostly via telesales. In order to sell the total energy solutions, BETA plans to engage a sales representative who directly contacts and advices (potential) buyers (face-to-face). The delivery will be done by the conventional smaller fuel distributors. Thus, this new strategy alters BETA’s channel structure significantly, leading to shorter and hybrid channels. Since the company will keep selling its traditional fuel products via telesales, multiple distribution channels will arise.

The relationship between BETA and its distributors has taken more formal forms. BETA tries to convince its distributors to cooperate in the total solution strategy and make RSIs. Persuading these distributors is not easy, because they mostly are rather sceptical about their own advantages. BETA now engages in formal cooperation contracts with its distributors. In this way, the supplier tries to lock the commitment of its distributors.
BETA expects its supplier-customer relationship quality to improve significantly as a result of the total solutions approach. Customers will have to make RSIs, which implies that trust in BETA will have to be high. The relationship will receive a longer-term orientation. BETA’s Logistics Manager claims that he will only engage in a total solutions offering after long conversations which reveal shared values and opinions.

**Case GAMMA**

Until recently, GAMMA was only known as an equipment vendor for telecom carriers (fixed and mobile). Today, the company has changed profile: it presents itself as a provider of communications solutions to telecom carriers, Internet service providers and enterprises for delivery of voice, data and video applications to their customers or employees. This implies a shift in both offerings (from equipment vendor to solutions provider) and markets (from telecom carriers to all companies with a national network). Two trends led to this shift: on the one hand, GAMMA experienced an increased level of competition, which provoked a significant decrease in profit margins of its equipment parts, and on the other hand, the customers’ desires changed gradually from plain equipment parts to integrated problem solutions.

Evidently, the transformation process has not always been easy for the former manufacturer specialist. GAMMA became aware that both (product-focused) employees and internal systems (e.g. its SAP systems were specifically designed to transport large volumes of material) were not adjusted. Several training programs and head quarter actions supported
the necessary change in attitude. Moreover, the internal organization has experienced some changes, too. Nowadays, GAMMA mostly supplies (turnkey) projects.

As a consequence of these turnkey projects, GAMMA had to adapt its channel design. Whereas sub-contracting used to be the rule, nowadays it is rather the exception, since GAMMA generally engages in co-contracting today. Furthermore, a global organization within GAMMA deals with the integration of all total solution projects. Hence, the total solutions approach has altered GAMMA’s channel design: channels are shorter and hybrid channel structures have come into existence.

Whereas the supplier-customer relationship has gained in quality (satisfaction, trust and commitment of both parties are high), the supplier-distributor relationship has experienced the opposite evolution. In every turnkey project, distribution partners are chosen independently from previous projects. Relationships are thereby very intensive, but short-termed. Trust and commitment are limited to the project boundaries. GAMMA uses explicit contracts to coordinate its supplier-distributor relationships.

**Case DELTA**

In the seventies and eighties, DELTA became widely known as a systems integrator. In the last decade however, the level of competition has grown enormously, among other things because of competition from the Central and East European countries. Therefore, the company experienced that its system integrator activities became commodities and it switched to a strategy of added value (total solutions). Whereas DELTA used to limit its task to pure integration of systems, it now invents an integral solution for a customer’s problems (e.g.
Warehouse and Distribution Solutions). The customer is pleased with this evolution, for now he can be involved in the development process at a much earlier stage. For DELTA, the transformation to a solutions provider required not only a change of all employees’ attitude (from a product-focused to a solutions approach), but also an alternation of the internal structure (e.g., an extension of the management team (including marketing-oriented people in the management team) and closer collaboration between different departments, such as R&D, production and sales).

DELTA experiences a new kind of partnership in the supply chain to deliver the total solution: the consortium agreement. In this new type of partnership, every subcontractor is responsible for its own part. This evolution also involves a certain kind of disintermediation: previously, one of the companies acted as an integrator, while today the interaction with the customer is more directly for every player. In this way, channels have shortened. Another channel design alteration is that DELTA has assigned large account managers to keep track of solutions customers. Therefore, hybrid channels have emerged.

In the same way as GAMMA, DELTA has switched from sub-contracting to co-contracting, but contrary to GAMMA, DELTA uses a ‘preferred partners’ approach to select its distributors. This ‘preferred partners’ strategy leads to a high level of distributor commitment and trust. The supplier-distributor relationship quality is thereby improved.

DELTA’s supplier-customer relationship quality has been enhanced, too. As has been said, the customers are satisfied with the new offering. RSIs of both parties control these relationships: whereas customers have to make specific investments to implement a total solution from DELTA, the supplier also has to lock in a large part of its resources into a
specific product-market combination. Recently DELTA has started an experimental risk sharing strategy, in which the supplier shares in the customer’s investment costs.

**Case EPSILON**

EPSILON was founded in 1988 and is a world market leader in digital colour printing. The company develops and produces print engines, toners and front-end applications. Recently, EPSILON started offering total solutions in the area of labelling and CD-packaging. In order to supply the latter solution, the company has engaged in a joint venture with a world player in the paper industry. In the future, EPSILON intends to extend its solutions offerings. The reason for this shift can be found in the rather difficult market situation; price competition is the norm in the traditional print engine market. At the beginning, the transformation process was hard, because not everyone was convinced of the necessity and top management did not support this new orientation (proceeding from the marketing department). EPSILON consequently adapts its internal organization. For instance, integration between R&D and marketing has taken place and the function of ‘Sales Support Manager’ has been created to support the sales team when supplying total solutions.

In the supply chain, EPSILON has omitted its former distributors and has founded its own sales centers to facilitate the total solutions strategy, because it had experienced that the former distributors were not committed to the EPSILON products and that they were not willing to make RSIs. In this way, channels have become shorter. Furthermore, EPSILON’s headquarter has taken over the marketing task of advising the customer, therefore hybrid channels emerged.
EPSILON’s supplier-customer relationship quality has improved. Customers are more involved in the total solution, from development to delivery, which enhances their trust and commitment. They receive tailor-made solutions, so their satisfaction level is high, too. In some cases, EPSILON responds to the customer RSIs with exclusivity. In this way, EPSILON makes RSIs, too.

5.3 Cross-case comparison

Total solutions

A cross-case analysis points out that the cases show important similarities. For example, the reasons for shifting to a total solutions strategy appear to be similar: all case companies experienced a transition in the customer’s preferences and in four cases a higher degree in competition was noticed. The fifth case company (EPSILON) did not so much experience an augmented degree of competition, but it already operated in an environment in which price competition was the norm. Each of the case companies also noted an internal change and an increased emphasis on customer focus as a result of the new strategy.

Despite these striking similarities, the cases demonstrated a rather high degree of divergence, too. Most of this divergence could be explained on theoretical grounds. It is obvious that the former physical product manufacturers (ALPHA, GAMMA and EPSILON) experienced a significant increase in the amount of intangible elements, whereas the former services providers (BETA and DELTA) did not. Another source of variation between the case companies is the organization size. It is remarkable that rather large companies (ALPHA and GAMMA) needed a formal training program for obtaining the indispensable mentality change.
of all employees. Meanwhile, the smaller companies (BETA, DELTA and EPSILON) applied a more pragmatic approach (top management sets the example and hopes that the employees will follow suit). This divergence can be explained by organization theory: the organization size is determinant of the adequate internal control mechanism; larger companies need more formal mechanisms (e.g. Simons, 2000).

**Channel management**

Tables 3, 4 and 5 illustrate the main similarities and dissimilarities between the cases in the field of channel management. In the area of channel design, many parallel characteristics can be found (table 3). As estimated, a total solutions strategy leads to a more direct channel approach to reach the customers. Rangan et al (1995) also suggest a direct channel approach if the offering has a high purchase value, if the sales process is long and complex and if the (relatively small number of) customers requires a lot of information and training in product use. Thus, channels are shortened as a result of the strategy change to total solutions in all case companies.

*<Table 3 about here>*

Hybrid channels emerge in four cases. Hereby the most vital tasks of the marketing process, such as customer advice and persuasion (BETA and EPSILON), customer tracking (DELTA) or solution integration (GAMMA), are performed by the company itself, while more peripheral tasks, such as the delivery itself, are executed by resellers. This phenomenon corresponds with outsourcing literature, where it is believed that a company’s essential competences should not be outsourced (e.g. Quinn and Hilmer, 1994).
Finally, only two case companies (ALPHA and BETA) apply multiple channel structures. In the case of BETA, this can easily be explained: identical to GAMMA, DELTA and EPSILON, BETA has set up a new, more direct distribution channel for its total solution. However, BETA keeps selling its standard products via its traditional channel. Hence, a multiple channel structure emerges. In the case of ALPHA, the supplier already applied a multiple channel structure to reach its customers. The total solutions strategy has not altered this situation.

The changes in the supplier-customer relationship (table 4) are very parallel in all cases. Every supplier believes that all aspects of relationship quality have improved by the total solutions strategy, exactly as we expected in the preliminary framework. RSIs are the coordination mechanism most used to control the supplier-customer relationship. Both parties invest in specific assets when applying a total solutions approach. The customer has to make a considerable investment, because the total solution often represents a higher dollar value than a standardized product. Moreover, the customer cannot compose its components from several competitive suppliers and often has to adapt its production process to the new solution. The supplier makes RSIs, too. Indeed, it mostly has to dedicate a significant investment to a specific product-market combination. Two case companies mention specific RSIs: DELTA applies a risk sharing program and EPSILON engages in exclusive contracts. When suppliers make RSIs, they express their commitment to the relationship, which encourages resellers to trust them and commit themselves, too (Jap and Ganesan, 2000).

< Table 4 about here >
The impact of total solutions on the supplier-reseller relationship (table 5) is less harmonious amongst the case companies. Table 5 shows that the companies can be broken down into two types: ALPHA and DELTA on the one hand and BETA and GAMMA on the other. Whereas ALPHA and DELTA recognize a rise in all aspects of the supplier-reseller relationship quality, BETA and GAMMA do not. Both ALPHA and DELTA use mostly relational norms to coordinate the relationship. DELTA uses a ‘preferred partners’ strategy, which enhances the solidarity in the relationship. Consequently, distributors are more trusting and willing to commit to the relationship. ALPHA has set up a large information campaign for its distributors, involving them in the strategy change process. Moreover, they have always taken into account the distributors’ feedback on this strategy transition. This has augmented the distributors’ loyalty and trust.

<Table 5 about here>

BETA and GAMMA do not experience a rise in relationship quality in consequence of a total solutions strategy. BETA tries to convince its distributors of the mutual advantages of cooperation, but until now, it has not succeeded. When analyzing this, it seems that BETA is in the same position as ALPHA some years ago. They also experienced problems in convincing their distributors. A large-scale information exchange and feedback program might help BETA to win their distributors over. In the mean time, BETA applies formal cooperation contracts to lock their distributors’ commitment.

GAMMA uses a different approach concerning their distribution partners. This company engages in turnkey projects. Contrary to DELTA, GAMMA does not utilize a ‘preferred partners’ strategy. This can be explained by the nature of the projects: GAMMA’s
projects have a determined timeframe. When the project is finished, GAMMA’s involvement is over, too. DELTA’s projects often need some kind of aftercare, such as maintenance or updating. Thus, GAMMA’s solutions are more short-term orientated. In a short-term relationship, the use of relational norms to control the relationship is not recommended, because they “direct the focus of a supplier to bilaterally beneficial strategies and goals and a long-term orientation” (Jap and Ganesan, 2000: 230). Indeed, GAMMA uses explicit contracts as its main coordination mechanism.

EPSILON is not considered in the analysis of the supplier-reseller relationship, because today the company only applies a direct channel to reach its customers. In the past the supplier experienced that its distributors were not willing to commit themselves to the relationship or to make RSIs. Contrary to ALPHA and BETA, EPSILON did not try to persuade the distributors, but it skipped its distributors and set up its own sales centers. In this way, the supplier avoids coordination problems.

6. PROPOSITIONS

The main purpose of this article was to develop propositions to explain the impact of offering total solutions on the company’s channel management. Our intention was not to create general, law like statements, but we aim to construct some conceptual models and insights that can help to build knowledge and understanding concerning the researched phenomena and that can be empirically tested in a later stadium. Figure 4 depicts these propositions.
P1: A total solutions strategy will help suppliers to revitalize their competitive advantage.

The business environment has changed considerably in the last decade(s). Hypercompetition and changing customer preferences have made traditional competitive advantages unsustainable. To succeed in realizing competitive advantages in such a situation, companies can switch to a total solutions strategy. This strategy will support the supplier in providing added value for the customer and in this way escaping from the commodity magnet (Stremersch et al, 2001). ALPHA’s Product Marketing Manager says: “How can we grow and offer added value to the customer? By supplying solutions.”

P2: Offering total solutions has implications on the area of incorporation of services, customer focus, organization structure and employees’ mentality.

A shift to total solutions implies a change in strategy. This change has important implications. Firstly, the incorporation of intangibles (services) can be noted. Former physical product manufacturers experience an increasing importance of the service aspect (Payne and Holt, 2001). As a consequence, the intangibles added to their offering make their processes less controllable (e.g. quality control, operational planning, etc.). Specific training programs, such as those used by ALPHA or GAMMA can be applied. Secondly, a profound customer focus is needed to be able to offer customized solutions (Vandermerwe, 2004). The early involvement of customers in the development or production process is a supportive technique, used by DELTA and EPSILON. Thirdly, an integration of departments in the internal structure, such as ALPHA’s integration of compressor and extension production lines, seems to be indispensable when supplying integrated total solutions. Finally, the case studies made clear that it might be recommended to obtain a mentality change of all employees, either by formal training, or by using a pragmatic approach. ALPHA’s Product Marketing Manager
states: “That’s a big marketing action: it’s not just the case of making some brochures, it’s the case of changing the whole mentality of the organization.”

P3: A total solution approach provokes the use of shorter and/or multiple distribution channels.

Since a ‘deep customer focus’ is indispensable when offering total solutions (Vandermerwe, 2004), direct customer contact is recommended. A direct channel approach is also advised because of the higher purchase value and the increased complexity of the offering (Rangan et al, 1995). In this way, channels are shortened. ALPHA’s Product Marketing Manager admits that the role of the company’s distributors as an intermediate party is declining. When the supplier keeps selling its traditional products via its conventional distribution channel, dual or multiple channel structures emerge, as is the case with BETA. In these multiple channel structures, suppliers must find ways to manage conflict between separate channels (Stern et al, 1996; Rangan et al, 1995).

P4: When offering total solutions, the supplier tends to take over some important marketing tasks from the distributors. Hybrid distribution channels emerge.

As several case studies pointed out (BETA, GAMMA, DELTA and EPSILON), the offering of total solutions gives rise to hybrid channels, because most suppliers wish to take control over certain marketing tasks. Anderson et al (1997); Stern et al (1996) and Rangan et al (1995) state that the trend towards hybrid channels is driven by the customers’ wishes to receive products in the most cost- and time-efficient manner. However, we believe that in the case of a total solutions strategy, efficiency is not the main driver of a hybrid channel structure. On the contrary, this channel structure may be the result of (1) the supplier’s desire
to have full control over the most crucial distribution tasks (solutions integration, customer advice, persuasion and tracking) as a consequence of the high purchase value of the total solution (as opposed to that of the standardized products) and (2) the supplier’s wish to enhance direct customer contact. GAMMA’s Sales Support Manager states: “To perform the general tasks of distribution, the same organization is used as in the past. (...) Apart from that, a global organization within our company has come into existence to take care of the integration of the solutions.”

**P5: Total solutions enhance the supplier-customer relationship quality.**

* Satisfaction, trust and commitment are improved.

**P6: To safeguard the customer’s commitment and trust, the supplier is recommended to make relationship-specific investments.**

These two propositions treat the impact of a total solutions strategy on the supplier-customer relationship. Firstly, the relationship quality is improved by a total solutions approach. Both parties (supplier and customer) experience an enhanced level of satisfaction: the supplier can revitalize its competitive advantage (Stremersch et al, 2001) and the customer obtains a fully customized problem solution (Boyt and Harvey, 1997). Both trust and commitment are high. EPSILON’s Sales Support Manager states: “Ever since we offer total solutions, our customers are less inclined to go to our competitors.” In this way, ‘strategic’ (Brady et al, 2005) or ‘vertical’ (Ploetner and Ehret, 2005) partnerships arise, i.e. long-term relationships built on trust.

In order to protect the customer’s trust and commitment, relationship-specific investments (RSIs) are recommended (Ploetner and Ehret, 2005), although relational norms are suited, too (Lush and Brown, 1996). When making RSIs themselves, suppliers indicate
their commitment to the relationship. This might encourage customers to commit, too. An example of an RSI is given by EPSILON, which offers its customers exclusivity.

**P7:** If the total solutions strategy implies a long-term orientated supplier-reseller relationship, relationship quality will be improved. Relational norms are best suited to coordinate the relationship.

**P8:** If the total solutions strategy does not imply a long-term orientated supplier-reseller relationship, relationship quality will not be improved. Explicit contracts are best suited to coordinate the relationship.

The final two propositions deal with the impact of a total solutions approach on the supplier-reseller relationship. This impact is not as straightforward as that on the supplier-customer relationship. Two categories should be identified. In the first category, the total solutions strategy provokes a long-term orientated supplier-reseller relationship. The reseller as well as the supplier is committed to the relationship. Both parties show a high level of trust. ALPHA’s Product Marketing Manager claims that the level of distributor loyalty has increased. Relational norms are appropriate to coordinate this kind of long-term relationship (Ploetner and Ehret, 2005; Lush and Brown, 1996). DELTA applies a ‘preferred partners’ strategy, whereas ALPHA uses an extensive information exchange and feedback program: “We have always listened to our distributors requests and tried to fulfill them, too. (…) In this way, we gently encouraged our distributors to trust us.” These relational norms wipe out worries that resellers might have about being passed by.

In the second category of supplier-reseller relationships, the total solutions approach does not initiate the relationship to become long-term orientated. The total solutions are mostly project-based and distribution partners vary per project. In our study, GAMMA was in
this situation. In these relationships, trust and commitment are high, but strictly limited to the project. GAMMA’s Sales Support Manager testifies: “To be successful, trust has to be high. However, this trust only applies within the project boundaries, since in the next projects, we could be in competitive partnerships.” Given that these relationships are short-term based, explicit contracts are appropriate coordination mechanisms (Ploetner and Ehret, 2005; Jap and Ganesan, 2000).

8. CONCLUSION

The aim of this article was to develop propositions about the impact of providing total customer solutions on a supplier’s channel management, based on an extensive literature review and a case study research in the Belgian industrial market. In this way, the article contributes to existing literature: a first step in bridging the gap in the B2B marketing literature has been taken.

Limitations and recommendations for further research

It was not in the authors’ ambition to develop a general, all-embracing theory. The research scale and the relative premature state of the researched phenomena did not allow this. Therefore, the authors have chosen to develop propositions, in order to build knowledge about the researched phenomena. In a later stadium however, it is recommended to pursue a research study of a larger scale, including mixed methodology to test the propositions. Another suggestion for further research is the replication of this research in separate sectors. In this way, sector-specific factors can emerge.
Managerial implications

Several concrete lines of action for managers who wish to provide total solutions can be formulated. First of all, when experiencing hypercompetition or changing customer preferences, a manager benefits of shifting to a total solutions strategy. However, he has to take into consideration some implications of this shift: a higher degree of services (a training program emphasizing close customer contact can be of use), a profound customer focus (the manager can promote long conversations with or early involvement of customers), an alteration of the internal organization structure (collaboration between R&D, production, marketing and sales is imperative) and a change in employee mentality (the manager can apply a formal training program or a pragmatic approach, i.e. setting the example).

Further on, when applying a total solutions approach, the manager has to bear in mind that this will affect the company’s channel management. First of all, he or she must reflect on its channel structure. A hybrid, shorter channel might be more suitable to deliver the total solutions. Secondly, convincing the customer to make the necessary RSIs might not be an easy task. The supplier is recommended to demonstrate its own commitment by making relationship-specific investments, too. When the manager desires to build long-term relationships with resellers, s/he might benefit from designing a large-scale information campaign towards them, explaining in particular the reseller’s own advantages and allowing them to give feedback.
REFERENCES

Boyt, Tom and Michael Harvey, Classification of Industrial Services – A Model with Strategic Implications, Industrial Marketing Management 26, 291-300 (1997).
Easingwood, Chris and Filipe Coelho, Single versus Multiple Channel Strategies: Typologies and Drivers, The Service Industries Journal 23(2) 31-46 (2003).
Gilliland, David I., Designing channel incentives to overcome reseller rejection, Industrial Marketing Management 33, 87-95 (2004).


Mathieu, Valérie, Product services: from a service supporting the product to a service supporting the client, Journal of Business & Industrial Marketing 16(1) 39-58 (2001).


Nunlee, Martin P., The control of intra-channel opportunism through the use of inter-channel communication, Industrial Marketing Management 34, 515-525 (2005).


Ploetner, Olaf and Michael Ehret, From relationships to partnerships – new forms of cooperation between buyer and seller, Industrial Marketing Management, available online 10 October 2005.


Tapscott, Don, Strategy in the new economy, Strategy & Leadership 25, No. 6, 8-14 (1997).


FIGURES AND TABLES

FIGURE 1: Dimensions of relationship quality

FIGURE 2: Relationship control mechanisms
FIGURE 3: Preliminary framework

FIGURE 4: Propositions
### TABLE 1  Selected cases

<table>
<thead>
<tr>
<th>Sector</th>
<th>Size (worldwide employees)</th>
<th>Physical products manufacturer (1) vs. service provider (5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALPHA Compressors</td>
<td>&gt; 25 000</td>
<td>1</td>
</tr>
<tr>
<td>BETA Fuels</td>
<td>38</td>
<td>4</td>
</tr>
<tr>
<td>GAMMA Networks</td>
<td>56 000</td>
<td>2</td>
</tr>
<tr>
<td>DELTA Automation – systems integration</td>
<td>600</td>
<td>5</td>
</tr>
<tr>
<td>EPSILON Digital printing</td>
<td>220</td>
<td>3</td>
</tr>
</tbody>
</table>

### TABLE 2  Validity and reliability of the performed research

<table>
<thead>
<tr>
<th>Actions to enhance validity and reliability</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Content and construct validity</strong></td>
</tr>
<tr>
<td>• Multiple interviews per case</td>
</tr>
<tr>
<td>• Two rounds of interviews</td>
</tr>
<tr>
<td>• Correction of interview transcripts by contact persons</td>
</tr>
<tr>
<td>• Use of both primary and secondary data sources</td>
</tr>
<tr>
<td><strong>Internal validity</strong></td>
</tr>
<tr>
<td>• Analysis of internal patterns through the use of a topic list for the interviews</td>
</tr>
<tr>
<td><strong>External validity</strong></td>
</tr>
<tr>
<td>• Confrontation with insights from literature review</td>
</tr>
<tr>
<td><strong>Reliability</strong></td>
</tr>
<tr>
<td>• Detailed documentation of research protocol</td>
</tr>
<tr>
<td>• Multiple interviews per case</td>
</tr>
<tr>
<td>• Two rounds of interviews</td>
</tr>
</tbody>
</table>

### TABLE 3  Cross case comparison: Channel design

<table>
<thead>
<tr>
<th></th>
<th>ALPHA</th>
<th>BETA</th>
<th>GAMMA</th>
<th>DELTA</th>
<th>EPSILON</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Shorter channels</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>• Hybrid channels</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>• Multiple channels</td>
<td>X</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### TABLE 4  Cross case comparison: Supplier-customer relationship

<table>
<thead>
<tr>
<th></th>
<th>ALPHA</th>
<th>BETA</th>
<th>GAMMA</th>
<th>DELTA</th>
<th>EPSILON</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfaction</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Trust</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Commitment</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
<td>X</td>
</tr>
<tr>
<td>Main control mechanism</td>
<td>RSIs</td>
<td>RSIs, Relational norms</td>
<td>RSIs</td>
<td>RSIs</td>
<td>RSIs</td>
</tr>
</tbody>
</table>

### TABLE 5  Cross case comparison: Supplier-reseller relationship

<table>
<thead>
<tr>
<th></th>
<th>ALPHA</th>
<th>BETA</th>
<th>GAMMA</th>
<th>DELTA</th>
<th>EPSILON</th>
</tr>
</thead>
<tbody>
<tr>
<td>Satisfaction</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>n.a.</td>
</tr>
<tr>
<td>Trust</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>n.a.</td>
</tr>
<tr>
<td>Commitment</td>
<td>X</td>
<td></td>
<td></td>
<td></td>
<td>n.a.</td>
</tr>
<tr>
<td>Main control mechanism</td>
<td>Relational norms</td>
<td>Explicit contracts</td>
<td>Explicit contracts</td>
<td>Relational norms</td>
<td>n.a.</td>
</tr>
</tbody>
</table>