

Development and Implementation of Business Solutions

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Abstract

This paper reports one case study of a multi-company, multi-country case study research focused on the process of creation and implementation of business solutions. It finds that business solutions are driven by forces emerging from the business environment. These forces keep changing, redefining the problem and therefore the scope of the business solution. Customers approach suppliers to work together in finding solutions to business problems that require more than the standard use of existing products and services. Suppliers respond based on their evaluation of the attractiveness of the solution in a larger market. Suppliers work with customers to find solutions as the solutions are deemed sources of competitive advantage and potentially deliver greater profits than the sale of products and services only. Once the solution is deployed suppliers aim to standardise the solution in order to reach further markets. Customers also want to see the solutions standardised so other suppliers are capable to offer similar solutions and thus they are not locked into a relationship with one supplier.

Trading business solutions instead of products and services only, poses various challenges to both suppliers and customers. For example the need for changing personnel's mental models from product and services orientation to solutions orientation, the coordination mechanisms that need to be put in place to achieve the goals of a proposed business solution, and the risks for manufacturing companies of extending offerings through customization, bundling, or broadening its range. Successful business solutions encourage more intense competition, so although they may create competitive advantage, suppliers cannot expect this to last for very long.

Keywords: Business solutions, Changes in competitive environment, parties' motivation.

Introduction

Solutions' selling has been for years the normal approach that business marketers have used to gain customers' preference. The reason behind solutions' selling has been that institutional customers require some degree of customization of suppliers' products. Hence a solution has been defined as bundling products and services to comply with customers' requirements. Nevertheless, in recent years, the idea of solutions is evolving and the former definition begins to be questioned. From the customers' perspective, solutions are more than simple bundles of products and services; they instead imply an emergent relationship between buyers and suppliers that collaborate to develop and implement solutions to customers' problems. This broader view of solutions has created new definitions of solutions and shifted the focus of research towards the reasons why suppliers embark in offering solutions instead of only products and services.

Among the reasons why solutions are becoming more prevalent, service marketing academics include the need of suppliers to differentiate their offerings, the potential to make higher profits and the ability of solutions to reduce competition. Also, how relational processes of developing solutions operate is starting to unveil. Instead of the traditional view of solutions as bundles of products and services, Tuli, Kohli, and Bharadwaj (2007) argue solutions should be viewed as a four step process that includes requirements definition, customization and integration, deployment, and postdeployment support. Although Tuli et al's proposed model advances significantly understanding of business solutions, it is mostly viewed as if the progress is unidirectional (i.e., always moves forward from the first step to the last), and from a customer's perspective only, with little or no regard to others in the network. This study addresses the question of what is the process of creation and implementation of business solutions from a broader network perspective. This is achieved by gathering data from buyers and suppliers of multiple case studies in the context of the mining industry. Data is analysed embracing a social constructionist approach towards business solutions.

Literature review

Literature on business solutions focuses mostly in the process of sourcing strategy with less emphasis on antecedents to outsourcing and sourcing outcomes; neither provides a rigorous definition of the topic (Nordin & Agndal, 2008; Nordin & Kowalkowski, 2010). Studies on antecedents of services and solutions focus in manufacturing companies, and tend to be compared with the antecedents of the so-called servitization of manufacturing (Vandermerwe & Rada, 1988), however, the movement of servitization into solutions is only one part. Companies move to the market for industrial services aiming to counteract the cyclicity of manufacturing operations, also because industrial services are likely to require fewer assets than manufacturing activities (Oliva & Kallenberg, 2003). Services also enable companies to "earn the potentially highest margins" (Gebauer & Friedli, 2005, p. 70), and achieve revenue growth (Amit & Zott, 2012). Solutions can reduce competition and can also increase share of wallet or deal size and enable firms to access new markets (Krishnamurthy, Johansson, & Schlissberg, 2003). Hahn and Morner (2011) argue that entering the solutions arena, companies enter into larger segments of revenue and are better able to differentiate from competitors. Although basic services are often easy for competitors to emulate (Vandermerwe 2000), solutions are more difficult to imitate than products and services and, thus, could become a sustainable source of competitive advantage (Matthyssens & Vandenbempt, 1998;

Shepherd & Ahmed, 2000; Storbacka, 2011), in an environment where pressure to increase competitive advantage is mounting (Chae, 2012).

One driver into services and solution often emphasized in literature is commoditization (Nordin & Kowalkowski, 2010), which implies increased homogeneity of products, higher price sensitivity among customers, lower switching costs, and greater industry stability (Reimann, Schilke, & Thomas, 2010). Commoditization erodes the competitive differentiation of companies, decreases technology and product life-cycles, and often leads to a profit squeeze (Matthyssens & Vandenbempt, 2008; Shepherd & Ahmed, 2000). Companies that have traditionally focused on selling products, spare parts, and services face difficulties with increasing competition and declining margins (Windahl & Lakemond, 2006). A growing East-Asian competition in high-volume manufacturing, stagnating product demand, and a growing installed base of products (Davies, 2004) is further propelling this development. Thus, commoditization influences what business strategies companies can pursue. Using Treacy and Wiersema's (1993) generic business strategies, Reimann et al. (2010) found that as commoditization increases, operational excellence and product leadership lose impact, while customer intimacy becomes a more vital performance driver. As differentiation through product leadership becomes more difficult to maintain, the possibility to develop stronger, more strategic customer relationship by offering more extensive solutions is alluring (Anderson & Narus, 1995; Hax & Wilde, 2001).

Another antecedent has to do with customers' outsourcing of existing services to their suppliers (Nordin & Kowalkowski, 2010). This includes the liberalization and privatization of many former state-controlled sectors, such as telecoms and railways, on many markets (Davies, 2004). Cost reduction, flexibility, and risk aversion are major customer drivers for service outsourcing. As information and communication technology enables new services and service processes (Rust & Thompson, 2006), possibilities for new product-service combinations also increase. This has led providers to offer new solutions explicitly linked to the customers' output (availability, performance, and the like) that compensate the provider on the basis of the customer's value-in-use (Storbacka, 2011; Ulaga & Reinartz, 2011). Many customers demand "turnkey" solutions to their strategic problems (Miller, Hope, Eisenstat, Foote, & Galbraith, 2002; Stremersch, Wuyts, & Frambach, 2001) but also providers are trying to drive the market towards solutions in an attempt to maintain their competitiveness despite the trend to commoditization.

Suppliers are increasingly willing to take responsibility of customers' business (Kujala, Artto, Aaltonen, & Turkulainen, 2010) and since manufacturing companies have deep knowledge of their products and markets, they are often well positioned to offer services and solutions (Knecht, Leszinski, & Weber, 1993; Mathieu, 2001; Ulaga & Reinartz, 2011). Nevertheless, Shi (2007) argues that more the movement reflects a business processes outsourcing big bang.

As noted above, business solutions and outsourcing tend to be used interchangeable, nevertheless, for some authors a business solutions is not necessarily an outsourcing operation. For instance those that define business solutions as bundles of products (Hahn & Morner, 2011), or systems of interconnected interdependent activities (Amit & Zott, 2012). Other definitions of business solutions that may or may not need outsourcing include the transition of goods/product-oriented to solutions-based business (Chae, 2012), the capabilities that enable or add value to the purpose of an enterprise (Flaxer, Cao, Tian, Ding, & Lee, 2007). Nonetheless, some definitions of

business solutions suggest an outsourcing process is in place, like Shi (2007) who argues that in business solutions the supplier takes primary responsibility for clients' processes in the same line than (Kujala et al., 2011) that define business solutions to offerings where suppliers take full responsibility for the operation and maintenance of the facility throughout its lifecycle.

Thus, it is not only that antecedents of business solutions vary, but also business solutions are different business arrangements. Windahl and Lakemond (2010) propose four categories of solutions: rental, maintenance, operational, and performance. Other authors make little distinction between business solutions and business models (e.g., Aarikka-Stenroos & Jaakkola, 2011; Mason & Spring, 2011; Storbacka, 2011). These authors, with the exception of Mason and Spring (2011) also propose sequential processes to describe the creation and implementation of business solutions. Aarikka-Stenroos and Jaakkola (2011) identify diagnosing needs, designing & producing solutions, organizing the process and resources, managing value conflicts, and implementing the solutions, whereas Storbacka (2011) proposes develop solutions, create demand, sell solutions, and delivery solution as the process through which a business solution is created and delivered. However, Mason and Spring (2011) take a broader perspective and describes the process as multiple overlapping business models shaped by business solutions. Tuli, et al. (2007) propose to move from a product-centric view of the solution that views solutions as customized and integrated goods and services, towards a process-centric view of solutions comprising requirements definition, customization and integration, deployment, and postdeployment support. Although the latter outclasses the previous two because offers a view of business solution that includes supplier and buyer, says little about the process companies go through to transit from one stage of the sequence to other. This, together with the previous issues outlined in the review of the literature, raise the question of what is the process of creation and implementation of business solutions from a perspective that permits the inclusion of not only supplier and buyer but other actors of the network.

Methodology

This is multiple case study research in the context of the mining industry. Participant companies include suppliers and customers located in Australia, Chile and Sweden. We began identifying suppliers with operations in the three countries. Then we arranged meeting with those suppliers that accepted to participate and while the interviews progressed we included those customers that suppliers mentioned regarding business solutions. Incidentally all three suppliers in Australia identified the same customer. However, regarding a different business solution, hence different people within the same company were interviewed. A total of 22 interviews were conducted. Table 1 describes the interviews' schedule.

Table 1 Interviews' schedule

Country	Suppliers	# interviews	Customers	# interviews
Australia	Company A	1	Company T	1
	Company B	2	Company T	2
	Company C	1	Company T	1
Chile	Company A	4	Company U	1
	Company B	1	Company V	1
	Company C	1		

Sweden	Company A	1		
	Company B	1		
	Company C	1		
	Company D	1	Company W	1
	Company E	1		

Even though the mining industry is one of the most mature industries, it is also very competitive, especially for suppliers who are willing to adopt new business models to adapt to the changing needs of their customers. In the last eight to ten years the mining industry has experienced dramatic changes that have triggered the creativity of both buyers and suppliers. On the one hand, consolidation of the industry towards less and larger companies is evident. On the other hand, metal prices volatility is such that yesterday's extraordinary earnings may be quickly washed out by today's losses. These changes oblige mining companies to change their production strategies very quickly to accommodate to new circumstances. Mines keep re-opening and closing. They affect production capacity, which affects companies' needs of supplies, which affects suppliers. To keep competitive edge, suppliers have reacted by creating new forms of exchange with mining companies. Lessons from this industry can be learnt in other industries.

Sweden, Australia and Chile were chosen because of the mining context in which the study was designed. Sweden was included because this is a country that hosts world leading companies that supply to the mining industry. Australia and Chile were included because these two countries are of significant importance to the industry and keep growing at relevant rates, thus, they host important companies that are not only customers of the Swedish companies but also leading mining companies worldwide. Leading suppliers of mining companies with headquarters in Sweden that had subsidiaries in Australia and Chile were invited to participate.

A screening of the websites of potential participants was conducted to review if they had a business solutions approach towards the market. That is, companies that were focused in dealing with customers beyond selling only products and services but by solving customers' problems were chosen. Five companies were invited to participate; we call them companies A, B, C, D, and E. All five companies were approached in the three countries. Company A is a large producer of equipment for the mining industry with annual sales of \$10 billion, factories in 14 countries and subsidiaries in 80 countries around the globe. Among the products they sell are rock drilling rigs for underground and open pit mining, trucks, air compressors, and rock drilling tools. Company B is similar than A with the exception of having been traditionally a steel producer that extended their offering in the late 80s through a strategy of acquisition of other firms, most of them A's competitors. Today, B is as large as, if not larger than, A. Company C is a supplier of equipment for mineral processing with subsidiaries in more than 20 countries. Company D is similar than C but their headquarters are in Finland instead of Sweden but have a large office in Sweden. Company E is a very large company that specializes in energy production and automation. E's sales are more than \$50 billion a year, have manufacturing facilities in 7 countries and subsidiaries in 100 countries. D and E had not been able to participate in Australia and Chile.

Data collection

Appointments were requested with CEOs in Sweden and MDs in Australia and Chile. Owing to the variety of definitions of business solutions found in literature, the research was opened to diverse types of business solutions, thus, the purpose of the research was briefly explained only to secure access. The interviews were conducted with the purpose of understanding the process of creation and implementation of business solutions. However, no specific definition of business solution was given aiming to give our interviewees the opportunity to elaborate on their own views about this business issue. Nevertheless, researchers had an interview protocol prepared on the basis of existing knowledge, containing principally the processes of development and implementation of business solutions mentioned in literature. Interviews lasted in average one hour, however one interview lasted two hours as the informant was rather comfortable with keeping explaining his company's approach towards business solutions. Interviews were conducted by different researchers in the group according to their location; however, all interviewees were guided by the same interview protocol. The principal researcher visited all three countries but did not conduct all interviews in person.

In general, interviewees found easier to explain their thoughts about business solutions focusing on a particular case. To improve understanding, interviewees were requested to suggest other people within the organization that were aware about the case and also, it was requested that interviewees help to gain access to the customer with whom the solution was established. Then, customers were approached and also briefed about the research objective to understand the creation and implementation of business solutions. Customers tended to focus on the same case that suppliers initially explained because they were aware of the reason why they were approached.

Data Analysis

Interviews were analyzed with the help of NVivo 9 that allows coding audio files. An initial framework of analysis was formed by the steps of creation and implementation of business solutions suggested by Tuli, et al. (2007). The principal researcher listened to the full record of each and every interview. Then in a second round passages were paired with Tuli et al.'s model, but also with other theoretically grounded codes, such as value co-creation (Aarikka-Stenroos & Jaakkola, 2011; Hahn & Morner, 2011), variable pricing (Flaxer, et al., 2007), network architecture (Mason & Spring, 2011), and causes of failure such as cost saving mirage, lack of understanding, and lack of competence (Shi, 2007). For passages that did not relate to any of the theoretically grounded codes, a new code was created. The same procedure was used for all interviews. Interviews were analyzed in the same order that were conducted within each case study. That is, the stream of data collection was followed for the analysis. An advantage of this method is that it keeps the researcher's mind clear and focused on one case at the time. Once all interviews related to one case were coded, the same process was repeated for other cases. Case is defined here as data related to one supplier and the business solution that their representative described in the initial interview conducted with each supplier.

Once the analysis was completed within the case, a cross case analysis was performed looking for similarities and divergences between cases with the intention of finding common patterns of development that business solutions may have followed. The process showed that some codes were redundant and in the light of more evidence prompted researchers to recode some

passages. This paper illustrates the case of one specific solution developed between supplier B and customer V.

Results

First we found that although all companies' websites stress on the importance of offering solutions to their customers, people's views of the importance of business solutions diverge. For instance, the Sales Vice-president of company B in Australia states *"well... I suppose we have solutions, but ultimately what we sell are a bunch of machines that do the work that customers want."* However, the Managing Director of company C also in Australia says *"we aim to provide our customers with the most cost effective solution to their needs"* and the Managing Director of Company A in Chile stresses *"if we would not be able to offer the most cost effective solution, our permanence in the market will be questionable."*

At a first glance, this appears to be a difference in views between companies. That is, A and C are business-solutions oriented, while B is product-oriented. Alternatively the differences in views could be explained from an organizational perspective, A and C data comes from their MDs who tend to be more strategic in their thinking, long-term oriented; whereas B's views regarding business solutions are those of the sales VP. Sales executives tend to be more pragmatic, to have a more grounded practical approach. However, it could not be said which explanation represents better how companies behave. Data gathered in Chile from companies A and B shows that contradicting B's Sales VP in the last four years B developed a business solution for customer V. However, A didn't even attempt to develop its own solution despite their ability to do so. A manufactures the same type of equipment around which B developed their solution. This suggests that B may have been more solutions' oriented, even though their Sales VP tends to prefer selling products instead of developing solutions. However, A has now signaled that they are currently working with the customer to develop their own solution to the same problem.

Even though the solutions was originally developed in Chile, a similar problem emerged in Australia and B sold the same solution to T. T explains that they bought the solution from B because on the one hand A did not show interest –despite what A's MD declares about their solutions-based orientation- and on the other because he believes that B's equipment is superior. A's MD minimized the importance of the case saying that the market for this solution is not significant.

Data related to these cases illustrates two different situations in the development of a business solution. First, the case in Chile that required the development of a business solution from the beginning, second selling an existing solution to a third customer. The reason why A did not compete with B to develop its own solution could be explained by the fact that A perceived the market as small, and once the customer engaged B, there was no opportunity for A to participate as the development of a solution requires intense interaction between the parties. In the second case in Australia, B has advantage as their solution was already working in Chile. Nevertheless, A shows now interest in developing their own solution, which indicates that further evaluation of the market size suggest it is larger than initially thought.

The case shows that business solutions are not necessarily supplier's driven. This is consistent with Tuli, et al. (2007) and contradicts Storbacka's (2011) and Aarikka-Stenroos and Jaakkola's (2011) models. The Marketing Vice President of company B in Chile confirms that

suppliers are keen to invest time and energy to develop business solutions but with the ultimate expectation of standardizing the solution to sell to a broader customers' base. The last, instead could provide support to Storbacka's model regarding demand creation. That is, once the solution is standardized, new demand emerges and the supplier's investment could be recovered, by selling the solution to other customers.

We find that business solutions begin with a customer's needs but only progress to a next stage when the supplier finds enough motivation in the potential of the business. One-off businesses seem to be unattractive.

The problem definition also changes over time. In the business solutions developed by B for company V in Chile, the automation of a process of loading, hauling and dumping LHD, which uses equipment called Scoops, was at the core of the business solution. The initial motivation to automate the operation of the Scoop was the safety of the operator, then, the driver to develop this solution further became the productivity of the equipment itself, aiming to outperform that of the competition. Thus, the problem definition changed and therefore the kind of solution that could emerge was different. For illustration, in a mine, loading hauling and dumping is not the only dangerous task, also drilling and blasting are as dangerous. However, the problem is addressed from a different perspective, for drilling, the solution was to fit the drilling rig with a reinforced cabin, whereas for the process of LHD the solution was to operate the equipment remotely. When it was achieved, it became apparent that some operations were repetitive and that the operation did not need a person but could have been replaced by a computerized routine. This increased productivity of the Scoop left the operator idle while the Scoop was performing the routines. This redefined the problem again as to how to increase the productivity of the operator. The solution evolved towards making the operator be in control of more than one scoop at the same time. To make this possible, a new challenge to technology was created as the operator was required to control the machine not only remotely but without being able to see the machine directly.

Connectivity proved to be a challenge; radio signals don't travel well underground, and new forms of transmission were necessary. The solution turned to be more difficult than expected. Both parties started to feel pressure to deliver results and both felt that support was fading. On the supplier's side, the R&D team that happens to be in Europe felt that the execution team in Chile was sloppy. They were not doing a proper job to implement the solution that worked well in the laboratory. The project was taking longer than expected and budgets were well above the initial figures. B's headquarters wanted to kill the project. On the buyer's side, things were not any better. When a test had to be performed the staff at operational level opposed as tests may cause delays and be detrimental for the daily ore output. Operators were not completely cooperative either because they thought their jobs would be under jeopardy because the new solution had the objective of putting one operator to control more than one scoop at the same time. Pressure kept mounting to cancel the project.

Eventually the project was given a last chance, and for the satisfaction of the parties finished well, however, this experience suggests that problems around keeping the parties committed are not to be ignored when planning the creation of a business solution. To secure support the parties had to revisit the conditions of their engagement, review their expectations about the future and

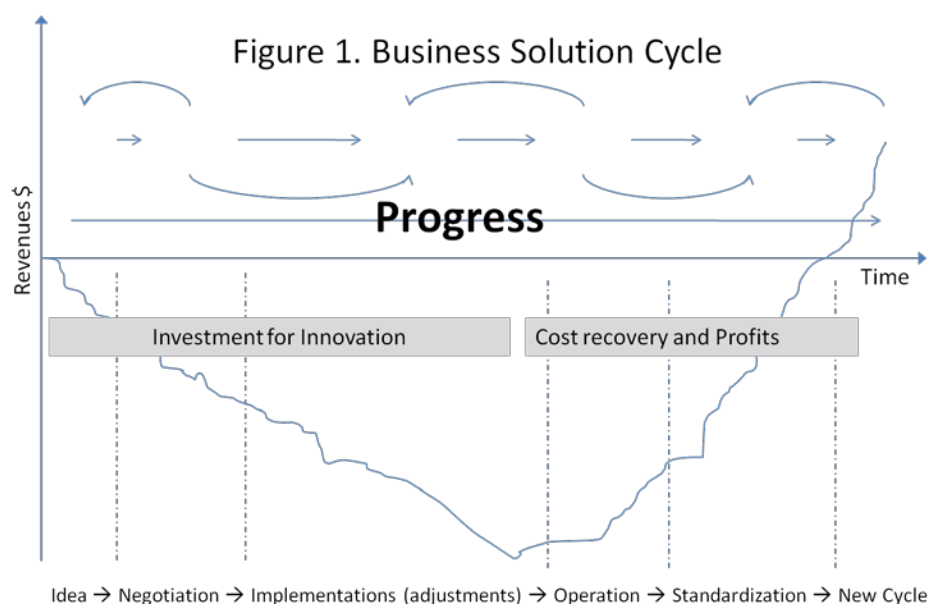
the benefits that a successful solution could bring in the future. Also, the responsibilities of the parties were discussed and the suppliers' ability to respond was scrutinized.

It is illustrated here that progressing from the problem definition to the solution and its implementation is not linear. It is not only that changes in the problem definition take the parties back to the beginning, but also that changes in the parties interests affect the dynamics of the process of business solutions itself. Thus, the pace of progress could be deemed as muddling through a possible solution where the ever changing interests of several parties need to be conciliated. Similarly to the process described by Kowalkowski, Kindström, Brashear Alejandro, Brege, and Biggemann (2012) for process of service infusion. Eventually, the solutions takes a shape that is less efficient than desired, because support is lost.

Other problems about business solutions are pricing and intellectual property. Suppliers would prefer to keep knowledge ownership, however, at the same time to charge customers as much as possible of the developing costs. Customers would prefer to be the unique buyers of the solutions as this could be an important source of competitive advantage, however, they would prefer not to pay any development costs related to the creation of the business solution. Ultimately, business solutions are developed when the supplier perceives that there is potential for further sales of a standardized solution, developing costs are shared to some extent between customers and suppliers and suppliers tend to retain the intellectual property of the solution, so they can extend this to new markets. Customers are offered a period of exclusivity so they can take advantage of the solutions before competitors. From a suppliers' perspective, the cycle of a business solutions could be divided in two, a first period of Investment for Innovation and a second period of Cost Recovery and Profits. Two phases in the creation and implementation of business solutions are identifiable, first investment/innovation and second cost recovery + profits. Both include six steps of:

Idea → Negotiation → Implementations (adjustments) → Operation → Standardization → New Cycle

Figure 1 illustrates the idea.



Once the solution was in place it attracted the interest of other suppliers, specifically A in this case as they realized the advantage that B had built on their solution. A's approach was to begin working in automation of the drilling operations, which driver was not necessarily about operator's safety but increased productivity. As the drilling operation requires more human intervention in the manipulation of drilling tools, achieving the same results than in the automation of LHD required significant redesign of drilling equipment. A was able to undertake the task because of their expertise in the area, but also because of their perception of the market potential (i.e., the possibility to standardize the solution and extend the market further). Now that A has a commercially viable solution, aims to re-enter the LHD automated market where B is leader. A's MD in Chile suggests that the way into this market is through providing an easier to integrate solution, which may mean opening the code of the software used to control the equipment remotely. Currently this is only a draft idea, which this research expects to uncover further.

Conclusions

Business solutions, like other innovation processes follow a number of steps from the idea generation to the final implementation, however, the drivers for the creation of business solutions are the resultant of the combination of forces that keep changing, thus the pace at which the solution progresses is erratic rather than linear as previous research suggest. Among the forces this research identifies: the need to improve operations' safety, which may also be the need to improve product and service quality; the need to improve efficiency or productivity of both man and machine, and finally the need of having better integration of several business solutions.

Business solutions go beyond the so called servitization of manufacturing (Vandermerwe and Rada, 1988), they are more than bundles of products and services as by utilizing machines that were manufactured with a specific purpose the ultimate result solves a customer's problem significantly more complex than the basic function for which the machine had been created. Business solutions are in a sense like services because they have the potential to deliver higher margins, which supports Gebauer and Friedly (2205) argument about services. Nevertheless, our case study research challenges the argument of Krishnamurthy et al. (2003) about solutions reducing competition. They instead attract competition, but at a higher game level where the skills required for competition are more complex. However, it could be argued that solutions still provide longer lasting competitive advantage compared to only selling products and services.

The parties' motivation to develop a business solution change over time and therefore the level of support that this kind of projects receive from high levels of the organization. We conclude that business solutions are principally driven by forces in the business environment. The direction of the resultant changes over time redefining the problem and therefore the scope of the business solution. This may cause that only few projects about business solutions manage to arrive to successful destination, while many others may never terminate.

Managerial implications

For suppliers, they need to bear in mind that business solutions do not guarantee customer's loyalty. Instead, like suppliers, customers hope for a solution that could be standardized, which may mean lower costs and not being locked-in to a supplier. For customers, developing a solutions requires interaction and coordination of activities not only between organizations but also within

the organization. The clearer the definition of the problem and its motivation, the less muddling that the solution needs to go through, hence the less expensive it would be, because, ultimately suppliers will seek to recover their costs one way or another.

References

- Aarikka-Stenroos, L., & Jaakkola, E. (2011). Value co-creation in knowledge intensive business services: A dyadic perspective on the joint problem solving process. *Industrial Marketing Management*, 42, 15-26.
- Amit, R., & Zott, C. (2012). Creating Value Through Business Model Innovation. *MIT Sloan Management Review*, 53(3), 41-49.
- Anderson, J. C., & Narus, J. A. (1995). Capturing the Value of Supplementary Services. *Harvard Business Review*, 73(January-February 1995), 75-83.
- Chae, B. K. (2012). A framework for new solution development: an adaptive search perspective. *The Service Industries Journal*, 32(1), 127-149.
- Davies, A. (2004). Moving base into high-value integrated solutions: a value stream approach. *Industrial and Corporate Change*, 13(5), 727-756.
- Flaxer, D., Cao, R. Z., Tian, C., Ding, W., & Lee, J. (2007). Variable pricing business solutions in a decomposed business environment. *Enterprise Information Systems*, 1(2), 177-195.
- Gebauer, H., & Friedli, T. (2005). Behavioral implications of the transition process from products to services. *Journal of Business & Industrial Marketing*, 20(2), 70-78.
- Hahn, A., & Morner, M. (2011). Product service bundles: no simple solution. *Journal of Business Strategy*, 32(6), 14-23.
- Hax, A., & Wilde, D. L. (2001). The Delta Model - Discovering New Sources of Profitability in a Networked Economy. *European Management Journal*, 19(4), 379.
- Knecht, T., Leszinski, R., & Weber, F. A. (1993). *Making profits after the sale*: McKinsey Quarterly.
- Kowalkowski, C., Kindström, D., Brashear Alejandro, T., Brege, S., & Biggemann, S. (2012). Service infusion as agile incrementalism in action. *Journal of Business Research*, 65(6), 765-772.
- Krishnamurthy, C., Johansson, J. E., & Schlissberg, H. (2003). *Solutions Selling - Is the Pain Worth the Gain?*: McKinsey & Company.
- Kujala, S., Artto, K., Aaltonen, P., & Turkulainen, V. (2010). Business models in project-based firms – Towards a typology of solution-specific business models. *International Journal of Project Management*, 28, 96-106.
- Kujala, S., Kujala, J., Turkulainen, V., Artto, K., Aaltonen, P., & Wikström, K. (2011). Factors influencing the choice of solution-specific business models. *International Journal of Project Management*, 29, 960-970.
- Mason, K., & Spring, M. (2011). The sites and practices of business models. *Industrial Marketing Management*, 40, 1032-1041.
- Mathieu, V. (2001). Service strategies within the manufacturing sector: benefits, costs, and partnerships. *International Journal of Service Industry Management*, 12(5), 451-475.
- Matthyssens, P., & Vandenbempt, K. (1998). Creating competitive advantage in industrial services. *Journal of Business & Industrial Marketing*, 13(4/5), 339-355.
- Matthyssens, P., & Vandenbempt, K. (2008). Moving from basic offerings to value-added solutions: Strategies, barriers and alignment. *Industrial Marketing Management*, 37(3), 316-328.
- Miller, D., Hope, Q., Eisenstat, R., Foote, N., & Galbraith, J. R. (2002). The problem of solutions: Balancing clients and capabilities. *Business Horizons*, 45(2), 3.
- Nordin, F., & Agndal, H. (2008). Business Service Sourcing: A Literature Review and Agenda for Future Research. *International Journal of Integrated Supply Management*, 4(3/4), 378-405.
- Nordin, F., & Kowalkowski, C. (2010). Solutions offerings: a critical review and reconceptualisation. *Journal of Service Management*, 21(4), 441-459.

- Oliva, R., & Kallenberg, R. (2003). Managing the transition from products to services. *International Journal of Service Industry Management*, 14(2), 160-172.
- Reimann, M., Schilke, O., & Thomas, J. (2010). Toward an understanding of industry commoditization: Its nature and role in evolving marketing competition. *International Journal of Research in Marketing*, 27(2), 188-197.
- Rust, R., & Thompson, D. V. (2006). How does marketing strategy change in a service-based world? Implications and directions for research. In R. Lusch & S. Vargo (Eds.), *The Service Dominant Logic of Marketing: Dialog, Debate, and Directions* (pp. 381-392). Armonk, NY: M.E. Sharpe.
- Shepherd, C., & Ahmed, P. K. (2000). From product innovation to solution innovation: a new paradigm for competitive advantage. *European Journal of Innovation Management*, 3(2), 100-106.
- Shi, Y. (2007). Today's Solution and Tomorrow's Problem: THE BUSINESS PROCESS OUTSOURCING RISK MANAGEMENT PUZZLE. *California Management Review*, 49(3), 27-44.
- Storbacka, K. (2011). A solution business model: Capabilities and management practices for integrated solutions. *Industrial Marketing Management*, 40(5), 699-711.
- Stremersch, S., Wuyts, S., & Frambach, R. T. (2001). The purchasing of full-service contracts: An exploratory study within the industrial maintenance market. *Industrial Marketing Management*, 30(1), 1-12.
- Treacy, M., & Wiersema, F. (1993). Customer intimacy and other value disciplines. *Harvard Business Review* (January-February), 84-93.
- Tuli, K. R., Kohli, A. K., & Bharadwaj, S. G. (2007). Rethinking Customer Solutions: From Product Bundles to Relational Processes. *Journal of Marketing*, 71(July), 1-17.
- Ullaga, W., & Reinartz, W. J. (2011). Hybrid offerings: How manufacturing firms combine goods and services successfully. *Journal of Marketing*.
- Vandermerwe, S., & Rada, J. (1988). Servitization of Business: Adding Value by Adding Services. *European Business Review*, 6(4), 314.
- Windahl, C., & Lakemond, N. (2006). Developing integrated solutions: The importance of relationships within the network. *Industrial Marketing Management*, 35(7), 806-818.
- Windahl, C., & Lakemond, N. (2010). Integrated solutions from a service-centered perspective: Applicability and limitations in the capital goods industry. *Industrial Marketing Management*, 39(8), 1278-1290.