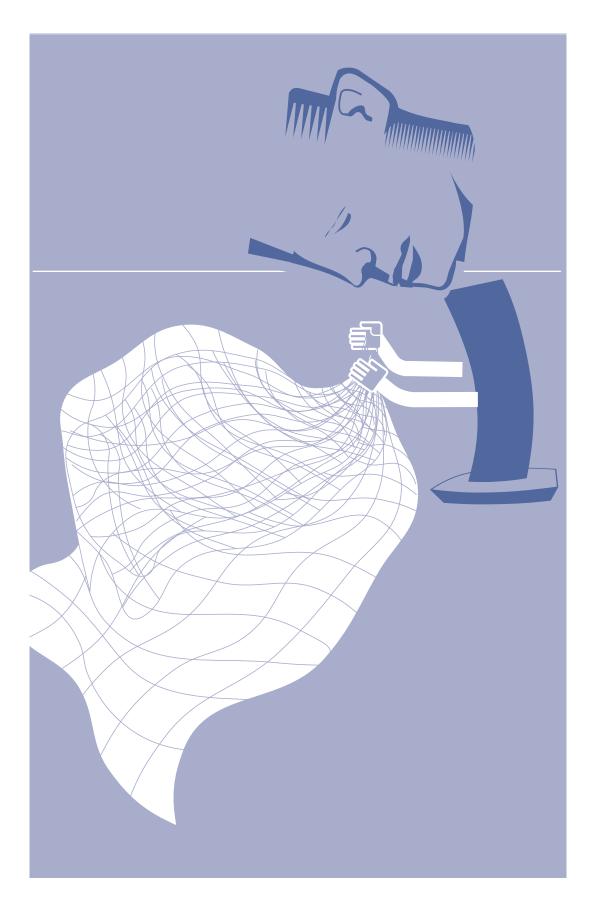


**Arthur D Little** 

**Innovation at Work** 



Space Through Services: Innovate, don't Imitate Olaf Tellefsen, Christoph Studinka, Jasper Boessenkool, and Björn Henriksson

**Expanding Your Market** 

Product manufacturers serving mature industrial markets are having a tough time. Lackluster demand combined with production over-capacity has punctured volume growth and created price pressure. And once they have gone through inescapable pruning and cost-cutting, manufacturers are still facing the question: how to grow profitably again?

The answers are diverse. Besides taking market share by optimizing product features and price (see Pricing in Downturn Economies in Prism, First Semester 2003), bringing radical innovations to market (see Innovation at Work in this issue), and establishing partnerships (see Game Theory in Partnerships in this issue), firms can also enter new markets through acquisitions.

But companies such as Atlas Copco, Bodycote, Sulzer Pumps, Eka Chemical, Philips Medical and Caterpillar have demonstrated that there is another answer. They are adding innovative services to their established product offerings, which contributes thirty and more percent to their top line and even more to their bottom line. Their service strategy aims to expand the market space in which they can operate and leave a large footprint in this extra space. We have labeled this strategy "market space innovation".

Market space innovation goes well beyond the traditional service strategy that many manufacturers of durable products and investment goods have adopted. Their traditional approach is based on adding a functionality (e.g. remote monitoring of equipment like elevators or gas turbines), delivering a performance guarantee (you pay as you consume, e.g. Atlas Copco's compressor rental service), or capturing more of a product's life cycle revenues through spare parts and maintenance.

The objective of market space innovation, as we call it, is to create novel business solutions. Building on its core

Companies competing in mature markets are always trying to generate new sources for profits. But new products, diversification, or trying to increase market share by cutting prices don't always lead to satisfying financial results. So the question remains: How to close the growth gap? Market Space Innovation (MSI) offers a viable alternative - if well performed. During the first half of 2003 Arthur D. Little conducted a global survey on MSI. Tellefsen, Studinka, Boessenkool. and Henriksson discuss key findings and the conclusions for successful MSI.

competencies and an intimate understanding of its customers (and customers' customers), the product manufacturer combines its existing products with new functions and additional services to offer solutions that create value for its customers. The resulting benefits – and risks – are shared between product manufacturer and customer. By intertwining their value chains, product manufacturer and customer form virtual alliances cemented by services.

## Examples of Market Space Innovators

Bodycote, for example, has set up a factory at the gates of Rolls-Royce's gas turbine plant in Derby, UK, to offer a customized heat treatment service for a number of components. The components are delivered just in time to the Rolls-Royce belt. While serving only one customer from its factory represents a certain risk for Bodycote (and so does single sourcing for Rolls-Royce), both parties share the advantage of being close together in manufacturing and sharing the costs of logistics and quality assurance. Furthermore, a wealth of information on specifications and costs of the heat-treated components is shared, forming the basis for continual innovation.

Dürr, a supplier of turnkey paintshops to the automotive industry, follows a similar logic. Its customers can opt for its so-called Pay-on-Production solution, by which Dürr also provides the manpower for support services such as cleaning, materials handling and quality management.

Back in 1987 Caterpillar started innovating in its market space by offering logistics services, which were rooted in its unique 24-hour spare parts delivery capabilities and infrastructure and process know-how. This business now generates sales close to one billion dollars annually. The company continued to add other services, resulting in Cat Financial, Cat Insurance, Cat Rental, and Cat Equipment Training. Glen A. Barton, Chairman of Caterpillar, puts it his way: "We've learned from the recessions of the past. Simply put, Caterpillar is not the same company we were 10 years ago – we're not the 'tractor company' we used to be known as."

By sharing risks and benefits manufactures and customers can form virtual alliances – offering benefits to both parties. Atlas Copco departed from its traditional compressor and other industrial equipment sales. It added a world-class rental service, creating additional flexibility and hence value for its customers. This business now makes up 1.5 billion dollars or 27 percent of the company's sales, and Atlas Copco could no longer imagine existing without this significant business.

Other successful examples abound, companies such as Siemens and General Electric, which have invested great amounts to offer complete financing and insurance packages for their equipment customers. However, failures are not hard to find either. Many companies have added services such as insurance, financial solutions or logistic services that are far away from their core business, not infrequently resulting in poor margins or outright losses.

# Arthur D. Little's Global Survey on Market Space Innovation

Triggered by these stories of success and failure and driven by experiences from client assignments, Arthur D. Little conducted a global survey during the first half of 2003 to investigate how companies are addressing the challenges of market space innovation. Business leaders from more than 130 medium-sized to large multinational companies in Europe, Asia-Pacific and the Americas shared their experiences with us. While fascinated by the countless market space innovation opportunities they could imagine, the survey participants were equally intrigued by the challenging hurdles to implement those visions.

From the survey results, we can extract four overriding recommendations:

- Ignore the service component of your business at your own peril. "Service or no service?", is not the question. If you don't take initiatives in market space innovation, someone else will, gaining at your expense.
- 2. Innovate, don't imitate. You must develop business solutions that are both differentiating and profitable on a sustainable basis. Imitation will not take you there.

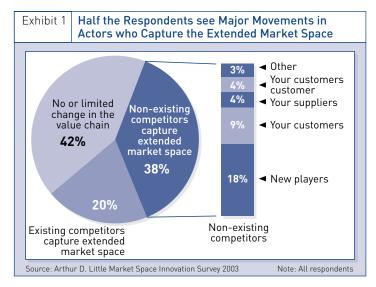
#### **Arthur D Little**

- 3. Focus on opportunities to redefine the name of the game in the value chain connecting you and your customer. Build on your intimate knowledge of your own product and your customers' needs to create innovations that increase the perceived value of your products.
- 4. Protect and lock in your market space innovations and prevent copying by a competitor.

Below, we have detailed each of these lessons.

## Lesson 1: Ignore at your own Peril

A striking finding from our survey was the admission by most participants that their efforts to get engaged in market space innovation were not the result of a clearly stated strategy. Instead, their market space innovation initiatives often are retaliatory measures to counteract new competitors entering the industry from the service side. Companies that previously had not been perceived as competitors are behind more than one third of market space innovations, participants told us. Half of these are even new in the value chain, i.e. players previously not present in these markets at all (see exhibit 1).



Customers' eager take-up of market space innovations offered by new competitors shows that there is great

30

Prism | 2 | 2003

Customers' eager take-up of market space innovations offered by new competitors shows that there is great demand for sophisticated services, but that many incumbent product manufacturers have turned a blind eye to their customers' service needs. demand for sophisticated services, but that many incumbent product manufacturers have turned a blind eye to their customers' service needs. Lest they lose customers and market share, product manufacturers must learn to take an external view in order to envision new service opportunities. The ability to identify and implement new services has become an entry ticket to many industries. Product companies ignoring this fact do so at their own peril.

Sulzer Pumps, the largest division of Sulzer, a Swiss engineering company, has traditionally been a product-oriented company, offering engineered pumps for oil and gas, pulp and paper and other applications. Ton Büchner, in charge of the division since January 2003, asked himself how the company could profitably grow in the service sector. Previously, Büchner had been responsible for an independent service company that offered services within a geographic region for all kinds of rotating equipment, such as pumps, compressors and gas turbines. He knew how to make inroads into the OEMs established market space by acting more flexibly and rapidly, supported by a service-obsessed culture that is rarely found at OEMs.

He wanted to embed some of this culture in Sulzer Pumps, based on his knowledge of the differences between OEMs and independent service companies. While OEMs think that those who have "their" products are "their customers", the independent service companies think of those who are geographically close and with whom they have a relationship as "their customers", regardless of the supplier of the equipment. In addition, OEMs tend to staff their equipment and engineering departments and key projects with "star" employees while service departments often have difficulties attracting the most talented personnel; at independent service companies, "service is life" for the entire crew.

As a result of this thinking, Büchner started to acquire independent service companies and opened a second "service business channel". By combining the muscle of Sulzer's OEM position with the service philosophy of the independents, Sulzer Pumps is now serving a market that covers many more customers than its own installed base. The two service channels with their different cultures and brand images co-exist and are starting to learn from each other to create synergies.

#### Lesson 2: Innovate, don't Imitate

While embracing market space innovation opportunities is a must, doing so successfully is not a piece of cake. Participants in our survey pointed out that they had captured only one third of their total potential market space. The challenge starts with the process of identifying and defining attractive service innovations. Managers of product manufacturers often are unfamiliar with both the kind of services that they could add to their existing product business and the services of their existing competitors.

As a consequence, there is a great temptation to imitate others ad-hoc. But imitation in the absence of a strategy is a recipe for failure. A successful market space innovation strategy tells you how your service range will be different from your competitors', how you will deliver your services profitably, and how you will sustain your profitability over time. One of the survey findings was that many companies are unable to track the margins of the services they add to their products (compare this with the fact that they usually know the margins on their traditional products down to the decimal). Likewise, profitability of the same service, such as training, can differ greatly among companies within the same industry.

The warehouse trucks industry provides a good example of a sustainable service proposition. The trend in the industry is to sell renovated (reconditioned) warehouse trucks with a warranty. The truck manufacturer is very well positioned for competitive reconditioning of the trucks, thus achieving good margins. Moreover, the customer gets a high value product of a renowned brand for a very good price. BT Industries, owned by Toyota, has been very successful in doing this and is a leader in the warehouse trucks business with yearly revenue of about 1.3 billion euros. BT Industries' 1,500 square meters of rental space for renovated warehouse trucks is currently being expanded to 5,000 square meters and will be the biggest of its kind in Scandinavia.

Imitation in the absence of a strategy is a recipe for failure.

Prism / 2 / 2003

# Lesson 3: Redefine the Name of the Game in the Value Chain

The warehouse trucks example reveals another finding: the most promising market space innovation opportunities originate from attempts to redefine the name of the game in the value chain connecting the product manufacturer and his customer. Successful market space innovators build on their intimate knowledge of their own products and their customers' needs to create innovations that increase the perceived value of their services. An intimate customer relationship enables them to find the opportunities in the value chain where their competencies are particularly well fit to meet known and unknown customer needs, and thereby block out competition.

A good example is Philips Medical Systems, one of the world's leading manufacturers of medical diagnostic equipment. In several business areas, Philips Medical Systems is the number one global player, and about half its 6.8 billion Euro sales is achieved with services. It focuses on solutions that combine its imaging equipment with additional services and applications such as digital archiving, document management, on-site training, asset management, financing, consultancy, second-hand equipment supply, as well as traditional equipment maintenance. By embedding its physical products in total solutions, Philips Medical Systems creates a differentiated range of services, which is hard to copy and yields strong customer lock-in. Customers highly appreciate the complexity reduction offered by the innovative solutions.

## Lesson 4: Lock in Your Market Space Innovations

One of the survey participants was a supplier of specialty ingredients. He shared with us a hard lesson learnt about his failure to lock in the customer in an otherwise attractive range of services. In an effort to boost sales of ingredients, he had offered co-development of new end-products as a free service to his potential customers. Such co-development was looked upon as a way to strengthen customer relationships. Unfortunately, after an extensive co-development project, one of his potential customers simply issued a tender for the supply of the required ingredient, and the contract was subsequently lost to a competitor. While well intentioned, the initiative failed because a customer lock-in effect was missing.

By intertwining their competencies with those of their customers, successful market space innovators develop increasingly sophisticated solutions that create customer lock-in and are hard to copy. Eka Chemicals, a subsidiary of Akzo Nobel with a turnover of one billion euros, is a supplier of chemical ingredients to the pulp and paper industry. As its chemicals became commodities, Eka Chemicals was subject to growing price pressure from its customers and competitors. Management recognized a strong need for improved differentiation and better value to customers so as to stabilize revenues and margins.

Eka Chemicals launched a number of innovative products/services that helped them escape from a pure commodity business. As an example, it offered the pulp industry a solution to overcome problems associated with the handling of chemicals. Until then, pulp companies had to buy sodium chlorate and run their own chemical process to generate chlorine dioxide. Chlorine dioxide generation is a complicated process, notorious for its safety and environmental issues, and it is not a core business of the pulp industry. Eka Chemicals now supplies chlorine dioxide directly to its customers. With the use of Eka's in-depth know-how in the field, chlorine dioxide is delivered into the customer's bleaching process at the exact concentration and volume needed. Moreover, having taken over the generation process, Eka Chemicals also makes changes to the process of chlorine dioxide generation so that its customer no longer has to deal with sulfur dioxide or methanol.

While Eka Chemicals has expanded its market space with a new service, pulp industry customers also benefit and are able to focus on their core business. Today, the new solution is running well at mills in Sweden, Finland, Brazil and Portugal, and Eka's customers are thrilled: "Since Eka took over chemicals production, we haven't lost a single ton - that's what I call stability," one customer said.

By intertwining their competencies with those of their customers, successful market space innovators develop increasingly sophisticated solutions that create customer lock-in and are hard to copy.

#### Insights for the Executive

No doubt, market space innovation will take an increasingly important place on the agenda of senior management at manufacturing companies. Today's product oriented companies will become a combination of manufacturing and service operations. To stay competitive, they must transform themselves from pure manufacturers to product/service solution providers.

While most managers acknowledge the potential of market space innovation, many service ideas simply remain ideas. Moreover, competition comes from another side: more than one third of market space innovations is launched by new competitors. Getting the breakthrough ideas requires the ability to assess customer needs in new and different ways, thereby challenging old patterns – often an outsider's look at the business is needed. Existing players are often blinded by their familiarity with the current rules of the game, and are thus unable to envision and capitalize on the opportunities.

Successful market space innovators have an intimate knowledge of their customers' often hidden needs. Building on that knowledge and starting from their existing products, they redefine the name of the game in the value chain connecting them with their customers. The result is a business solution that increases the perceived value of their services...and is hard to imitate.

## Acknowledgements:

The author team would like to thank Per M. Nilsson, Arthur D. Little, for his challenging thoughts and making available his deep knowledge in the subject. Moreover, the author team appreciates the very valuable and constructive support of Herman Vantrappen, Arthur D. Little, in writing the article.

36

## Olaf Tellefsen,

... is a Senior Manager in Arthur D. Little's Gothenburg office. He has seven years of consulting experience in the field of Technology and Innovation Management (TIM) where he also is a member of the global TIM practice team. Mr. Tellefsen has four years of engineering experience from the Norwegian offshore industry. Mr. Tellefsen holds a Master of Science degree in structural engineering, and a bilingual Master of Business Administration.

## Christoph Studinka

... is a Senior Manager in Arthur D. Little's Zurich office and is Head of the Engineering & Manufacturing Practice in Switzerland. He spent seven years in three of Arthur D. Little's European offices and has been active for many years as Corporate Developer and Vice President Marketing and Sales in two leading Swiss mechanical industry companies. He studied Business Administration in Zurich and St. Gallen and Engineering at the ETH/BWI in Zurich.

## Jasper Boessenkool

... is a consultant in Arthur D. Little's Rotterdam office. He is experienced in telecoms practice, strategy growth and innovation practice. Boessenkool holds a PhD in physics from Utrecht University.

#### Björn Henriksson

... is a Manager in the Stockholm office of Arthur D. Little. He has over ten years of experience in the field of technology & innovation management. Henriksson holds a Master of Science degree in Mechanical Engineering and a Licentiate degree in Machine Elements.