

SUMMARY IN ENGLISH

New Business Innovations

Innovation and growth

Innovations have a critical impact on economic development. This is true for innovations in companies and the academic field, as well as elsewhere in society. The present report deals mainly with innovations in companies; how they change their character over time and how we can facilitate and support important innovation processes.

The structure of the Swedish economy is changing at an increasing pace, and accordingly the conditions for how we can best support the development of the economy change as well. We become aware how different support systems, but also the basic view of economic development, are not developing concurrently with the pace of this change.

Not many decades ago, technology-based industrial companies totally dominated the economy and the public view of economic development. Since then we have entered the service society, and the service sector is today employing about 80 percent of the Swedish labour force. Still, however, many support and regulatory systems are created to suit the needs of industrial companies.

During the last century we saw how many of our industrial companies, largely based on technological innovations, became world-leaders in their respective industries, e g Alfa Laval, Atlas Copco, Electrolux, Ericsson, Sandvik and SKF. In the last few decades, however, rather different kinds of companies based on service innovations are beginning to take up globally leading positions, e g Capió, Clas Ohlson, EF Education, H&M, IKEA, Oriflame, Metro and Securitas. In an earlier study for Nutek we illustrated how the growth of these companies is driven by organisational, financial and service-based innovations, i e quite different types of innovations compared to those that historically contributed to the growth of the technology-based industrial companies.

The service sector and the service companies are obviously growing, but so are also many of the technology-based companies. An interesting observation is that service-based innovations are one of the most important driving forces behind the growth of many industrial companies. Product and technology development will still be of utmost importance in the future, but service innovations integrated into industrial processes will act as an increasingly important growth factor for many industrial companies.

An industrial company that integrates service innovations will gradually assume more and more of the characteristics of a service company, however not a genuine service company but one that integrates features of both these types of company. Ericsson is here a good example in that its business area Global Services accounts for an increasingly large proportion of its volumes as well as its profit. IBM is another example where the service orientation has almost completely taken over and where most of the industrial activities have been spun off at the same time as the service business has come to play a dominating role.

Tetra Pak is a clear example of a company that from the very start has offered its customers an integrated solution, where technology and service are integrated parts of the total offering.

This means that Tetra Pak has never been a genuine technology or service company, but rather a company that offers total solutions or what are sometimes called systems solutions.

In a similar way we find that IKEA and H&M are neither pure service companies nor pure retail companies. Both companies develop, industrialise and control the production of thousands of new products every year – they are in this respect giant industrial companies, but most of the time we talk about them as retail companies. IKEA and H&M are both good examples of companies that make use of organisational innovations to find new ways of improving production and product development from a retail perspective.

As can be seen from the examples above, it is in many cases meaningless to talk about industrial companies versus service companies. It is better to use the term integrated companies where service and industrial logic function together – sometimes they should be looked upon as some kind of systems companies. We might say that we not only have left the traditional industrial society but also to some extent the service society and entered a new era where systems solutions are taking up a more dominant position.

The innovations of the successful companies no longer apply only to product and production development, i.e. the technical and R&D-based parts of the value chain, but to an increasing extent to the customer-related innovations at one end of the value chain and the organisational innovations at the other end. The new business innovations will be found along the entire value chain and will develop the company in all aspects where there are innovative advantages in relation to competitors, and they will thus create a unique value chain. To become unique in a relevant way is one of a company's most important sustainable growth factors and accordingly demonstrates the basic importance of well functioning innovation processes along the entire value chain.

We have illustrated how companies like Tetra Pak, IKEA and H&M have created a business model that has more of a systems character than a pure industry or service basis – they have integrated into their business model different kinds of innovations that are often based on network thinking rather than on a traditional industrial process that is totally taken care of within the same company. For these companies, the traditional value chain is not an ideal way of illustrating the business model, it rather resembles a value-creating system where different co-producers and partners contribute to the manufacture of the final business offering that will be marketed and delivered to the market.

Contemporary research on industrial service innovations

Research and knowledge development in the area of service innovations have traditionally focused on the innovations of genuine service companies and relatively few studies deal with service innovations in industrial companies. This is one of the reasons why in this report we have chosen to analyse a large number of the most relevant Swedish and international studies in this field. Our analysis shows that most of the research and publications we have scrutinised deal with how innovations can be created in the service operations of industrial companies, e.g. how the service should be organised, how the pricing should be calculated or how the customer should be involved in the service development, and not so much with service innovations as an integral part of what an industrial company can supply or how the innovations should be integrated into a business model with systems characteristics. It is probably the case that most industrial companies are still struggling with its service activities

and trying to develop and renew them, as the research publications also note and mainly deal with.

Our literature study indicates that industrial services are widely acknowledged by the companies and have been given considerable attention by the popular press. When, however, it comes to academic research, the literature on the subject is surprisingly sparse. The publications included in our study were written by representatives from big management consulting businesses as well as by academic researchers. These academic researchers represented various research areas, including such disparate disciplines as behavioural sciences and industrial management.

The publications include a large number of more or less similar definitions and concepts for description of the transition from being a traditional industrial company to becoming a company that also offers industrial services. A common feature is that they all describe how the integration moves forward in the value chain. Some authors describe the transition as a process in which the service content and the level of customer intimacy gradually increase. At the same time, some parts of the value-creating process and responsibility are transferred to the supplier.

The driving forces behind the decision to offer industrial services are external as well as internal. Some of the most manifest factors that influence companies to choose this path are the increasing globalisation and deregulation as well as the rapid technology development. As a consequence, firms face tougher competition and need to seek new ways of differentiating their offering. In addition, the customers increasingly choose to focus on their core business and put more and more sophisticated demands on their suppliers.

Internally, there are financial as well as marketing advantages associated with offering services. The financial advantages are mainly the large market potential and the high margins of services. Services also reduce the financial risk since they are less responsive to business cycles than the purchase of capital goods. As regards marketing advantages, services build loyalty and improve client satisfaction, which increases the likelihood of repurchase. Services also give the company an opportunity to better understand a client's needs, processes and plans.

The most apparent change when transforming from a traditional industrial company to an industrial services company is the transition from product focus to customer and market focus, a change that should penetrate the whole organisation. This change is of crucial importance since it involves moving forward in the value chain and thus reducing the gap to the customer's business. Thus, customer focus will create a better understanding of the customer's needs.

Customer focus must be reflected in the organisational structure and competences. The frequent insistence on centring the organisation on production and encouraging technical instead of relational competences constitutes a barrier to success, since it counteracts a customer-focused strategy. Only when the organisational structure stimulates the customer rather than the product focus is it possible to create a company that is governed by customer needs.

Furthermore, pricing and monitoring should be determined by the customer focus of the organisation. Monitoring should, for instance, take into consideration such factors as customer satisfaction and ability to cooperate, and not only measure internal ratios. It is also important

that the centre of attention for product and service development should be customer needs and functional requirements. This means that the focal point should be to manufacture products with high customer usability rather than developing technically advanced products with as many functions as possible.

Another, very important change is to open up the company for cooperation and interaction. This applies to internal as well as external cooperation. Cooperation should be a central part of the relation between customer and supplier. Some authors argue that the value-creating process in this type of company should be described as a value system in which the supplier creates value in cooperation with the customer and other suppliers. When all players are focusing on their core competences, it becomes more and more important to create links to other players and thus promote cooperation.

Co-production, to share gains and responsibilities, and to work towards mutual goals are success factors discussed in the literature. Likewise, it is argued that it is of great importance to share information, that is, instead of considering the other party as a rival, the supplier and the customer should take the advantage of sharing information with each other in order to achieve mutual gains. Relations built on trust are thus a prerequisite for a successful business based on cooperation. Moreover, many authors consider it important that the business-internal development of new products and services should be cross-functional, since there are considerable synergies between the products and services sides of a business.

The strong emphasis on value creating is consistent throughout the literature. The process of creating customer value, rather than producing products and services, is seen as the main activity of a company. The focus is no longer on creating products at the lowest possible cost but on selecting the products that create the highest possible value, including the services required.

The changing time perspective, from being short-term to becoming long-term, is another issue that is discussed in the literature. Many authors argue that the transition from a traditional industrial firm to an industrial services firm should be seen as a time-demanding, experimental learning period. The long-term perspective also applies to the lengthening of the supplier's involvement in the life-cycle that characterizes industrial services, i.e. the supplier has a role to play in a larger part of the life cycle of a product. As regards customer relations, the long term perspective is necessary as well, since the supplier's interaction with his customers tends to proceed from being transaction-based to becoming relationship-based. In contrast to the sale of products, where the profit is made visible already when the sales transaction takes place, it often takes a long period of time before a solution-based business becomes profitable.

For the industrial services firms, flexibility is becoming more important than standardisation and mass production. Flexibility is necessary when it comes to customer relations. To meet customer needs, an adaptable organisation with flexible employees is a prerequisite. The learning process, from being a traditional industrial company to being a company offering services, requires flexibility and adaptability. To overcome early barriers, it is important to learn by one's mistakes and to have an entrepreneurial and experimental attitude. For finding solutions to customer-specific needs, flexibility is desirable in the form of temporary teams, who can work across organisational boundaries.

An observation we have made is that the transition towards services often brings about displacements of power. Thus, there will be people whose power increases and others who

lose part or all of their power. As a result, the transition will be seen as a threat by some people, while others will see it as an opportunity.

Future development areas

Research on service innovations in industrial companies is still a virgin area, at least from a holistic perspective on how service innovations develop in certain companies and business situations, and on how to find relevant success criteria. There is a need for further knowledge and language development. Business development is often described from a product perspective, and many of the development models that are relevant for product businesses are not always valid for the understanding of service businesses.

Service development in industrial companies continues to have a great potential for driving growth. We believe that service-based business and service innovations will be important ways of further growth for mature industrial companies, as an alternative to continuous rationalisations within the existing business models. The development of more sophisticated business models in the service area takes a long time to implement and requires substantial changes in activities, organisation and not least corporate culture. It requires deep knowledge about the customers' business processes and a different time perspective. The service business is often of a more long-term nature than the product business.

We believe in business models with increasing integration between products and services as a way to protect customer relations and profitability and to meet the customers' demands for delivery of functionality and accessibility rather than products. A closer cooperation, a new mutual trust and a wide flow of information between customer and supplier will be necessary to facilitate the further development of different product and service offerings.

New organisational structures will be tested. There are no standard solutions. This means that for development of more advanced service models, solutions have to be adapted to the specific role of individual service businesses, their level of maturity and corporate culture. People with experience of service will have a higher status and leading roles not only in the development of service but also in the creation of new business models with integration between products and services. The role and commitment of the corporate management will be even more important. Substantial changes of business concepts and organisation will only be implemented with active support from the top management. We will see more CEOs with a service business background.

New ways of managing and organising product development are needed to include the service perspective in a better way and to utilise the potential for new business opportunities. Cooperation within specific projects will not be enough. Better and faster commercialisation of products will be necessary in connection with shorter product life cycles and the fact that service will play a more important role in securing profitability over a life cycle.

Service has a long-term character and requires well-adapted control and measurement systems. There has been a lot of talk about the need for such systems, but in practice there are few cases where service is measured and managed on its conditions. The control and management parameters that are valid for product companies are not always equally suited for services firms. Here we will no doubt see a number of new development initiatives, not to forget the need for a new time perspective and new ways of evaluating long-term risks.

The internet and digital technology will fundamentally change the conditions for service businesses. Many services can be digitalised and supplied through the customers' digital network. Quality and customer value will radically increase, and it will also be much easier to protect the service offerings by using proprietary software. In some cases the suppliers will have a more or less monopolised market where competitors and other external companies will not have access to the main components and programs. This will further strengthen the relationship between customers and their suppliers.

The need for new political initiatives

We have mentioned a number of cases where service innovations might be regarded as isolated outsiders in relation to the establishment's view of what innovations really are, how they should be described and how they should be measured. If we start with the fact that innovations can be created all the way along the value chain and not only be related to technology and production, we will see a whole new arena where service innovations do not have a well defined position.

The language we use to describe innovations and their effects is entirely related to R&D and technology-based innovations. We often ask for patents, technology level, R&D budget and export potential – concepts that do not have the same relevance for service innovations. The same is true for various statistical calculations where the effects of service innovations, e.g. on export figures and national employment, cannot be measured in the same way as in the case of industrial companies, for which the statistical measurements seem to be constructed. In addition, service innovations are not developed by means of the traditional model used in commercialisation research where lab tests, prototypes, alpha and beta versions, etc are important concepts within a given framework.

Another drawback for our understanding of service innovations is the fact that it is relatively difficult to figure out the effects of the implementation of service innovations, compared to the implementation of technology and science based innovations. We have better measurements that help us understand the environmental impact of a new product than we have if we want to estimate the effects of, for example, displacement of power and new rules for introducing organisational and social innovations. This creates a feeling of insecurity regarding the innovation process, for example how politicians could support it, and if they should support it at all.

Knowledge development in the area of service innovations is also hindered by research traditions and related measurement problems. The positivistic metascience where the ability to measure is an absolute condition, is not very well suited for research on service innovations – what is not possible to be measured is not regarded as scientifically verifiable. Consequently with positivistic methods that are unable to cope with societal and qualitative observations very little relevant research and knowledge development will be carried out.

If we are to acquire knowledge and capability of building new industrial companies where service innovations are an integrated part of the offering, or of building systems companies, where it is not even meaningful to talk about industry versus service, then we also have to create the kind of research that is suitable for the area studied – the methods should be adapted to the research object and not the other way round.

The service sector should not be looked upon as a single line of business or a specific industry, possibly a large number of industries. What is important is that we recognise that industrial service innovations will not be found within one single industry; they rather cut across historical industrial boundaries.

We need a research focus on industrial service innovations and on how the innovations of systems companies raise these companies to a world-class level. What IKEA and H&M have done on the basis of their production concepts and what Tetra Pak did when it established a brand new line of business with its systems solutions are good examples of how Sweden can build world-class companies using business models of systems character where service innovations interact with industrial concepts. We have the empirical cases in our own backyard – why then should we not also be able to create world-class research in this area?

We need new clinical research on service innovations and their commercialisation. Taking the medical clinical research, with its university hospitals for both patients and knowledge development, as a role model, we should be able to establish clinically oriented research in the area of service innovations and to vitalise industrial companies with the results of this research.

We should also create new arenas where researchers and businessmen can meet to discuss existing needs and opportunities. The universities in Sweden have now struggled for ten years to find out how to best implement their third mission, i.e. collaboration with industry and other bodies in society. They have, however, met with little success and blame this on a lack of money and people. Actually, the third mission is not highly prioritised in their long-term goals.

Education is closely related to research, and these two academic areas constitute the major missions of the universities. In a similar way as research, education has a traditional view of the development needs of the business world, and its history of industry is still dominated by capital-intensive engineering-oriented companies rather than service-based companies. This is probably partly due to the fact that we emanate from a culture where service companies and people offering personal services have not been highly regarded, and that the public service monopolies historically have had a dominant position in major parts of the service sector. This overall picture probably contributes to the fact that many of the development possibilities of the service sector have not received their proper attention and have accordingly been lost. As is well-known, education does not only take place in the classroom but is also reflected in the public opinion in the outside world. Actually, education in this sense would gain if it could better reflect the contemporary and future economic development.

The service sector in Sweden has long been dominated by public service monopolies. Historically, this construction has had both drawbacks and advantages. Developments in productivity have probably been obstructed by the absence of competition, but on the other hand, economies of scale has led to extensive infrastructure investments and solutions that would not have been made otherwise. The driving force to export some of these solutions has not been found in the public system; in fact, public authorities and agencies are not well equipped to take business risks. A new construction and a new view of the export opportunities would turn the investments of the public service monopolies into a foundation for new business. This in turn could lead to new service activities and new service innovations.