



**Service research makes for competitive strength**



# Introduction

The development of services is a question of priority for Unionen and an essential part of competitiveness in the Swedish private/business sector. This is why we have long been promoting the need for more research to contribute to the development of services. It is not only the service sector that needs to have new knowledge in order to develop services, but also industry, which is becoming increasingly dependent on services as a complement to the goods that are sold. However, we note that many people have a very vague idea about what research into service development is and why it is necessary. Hence there is a risk that decision makers, for example, avoid making essential decisions since they do not see the potential in further knowledge about services.

How is service development research carried out? And is it necessary to conduct special research in the area? These questions are not easy to answer, but hopefully this report will contribute to better understanding and further information about service research.

This field of research is, as we note in the report, not particularly easy to specify, and although many aspects of service research have come a long way, there are other areas that are still in their infancy. This research field is still developing, which means that the situation we are describing is continuously changing. Our aim is for the reader to obtain the information necessary to be able to participate in the discussion on the importance of research, including in the service sector.

We discuss research and service innovation in the report. The services referred to are mainly those connected to a physical product or to a technology which makes a service possible. Such services exist in all industries and are thus not exclusive to the service sector. Issues that only concern the development of the service sector are not included here.

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# Unionen's view

Unionen's conclusion is that access to research results in the services area needs to be improved and that there is considerable potential benefit in improved ways of circulating these results. Comparison with other countries confirms the need for further efforts in service research and service innovations in Sweden. Another substantive argument is that the development of services promotes competition within all industries and sectors. It is important for a small, export-dependent country like Sweden to be in the forefront of development and to invest in areas where Swedish products can excel on world markets. We have potential for development in the services innovation area, not least due to our tradition of delegated responsibility and authority, permissive leadership and a well-developed systems expertise, all of which are important components in strong innovation.

The following efforts in service research may contribute to increased service innovation in companies:

Research into services should be clearly evident in the new areas of strategic innovation that we want the government to focus on in the Research and Innovation Bill.

Knowledge of service research in Sweden and other countries should be gathered and circulated to companies in a better way. This should be a task for the government.

Cooperation between Academia and the business sector contributes to service innovations. Increased cooperation is promoted, for example, through increased basic financing to industrial research institutions that provide an important link between researchers and companies.

Efforts are also needed in other parts of the innovation system to increase the number of service innovations that materialize.

- R&D programmes must be published so that service development projects can participate on the same terms as the development of physical products.
- Public procurement (for example for pre-commercial procurement) of service innovations must increase
- Assessment criteria in the academic world must be developed so that services research is evaluated in the same way as other research.
- Knowledge of intellectual property legal issues which affect services needs to be developed.

# The importance of services for the economy

The business world is undergoing a structural change. Globalisation promotes a refining of organisations as a result of a focus on core activities and the outsourcing of support functions, or aspects of production. Increasingly, various company services are purchased from external suppliers.

If companies are to continue to be relevant for their customers and promote themselves on the global market, it is not sufficient to focus on technology and large volumes. By offering service content in their products, companies are better able to compete globally and are less vulnerable with regard to low prices and volume competition.

Service innovation is becoming increasingly important for Sweden, as the service content in the economy is increasing, both in Sweden and in other countries. Service production accounts for more than 70% of GDP in Sweden<sup>1</sup>. The proportion of business sector employees in the service sector, over the past 25 years, has increased from 47 to 63 %<sup>2</sup>. However, it must be remembered that there has been a major outsourcing of services from industrial companies during this period, which means that the statistics are not completely accurate. Today many jobs are recorded in company statistics as service jobs, since the company is regarded as being in a service industry, although the content of the activities is the same as if it were as an industrial company. For example, the receptionist function in a manufacturing company may be contracted out to a manning company.

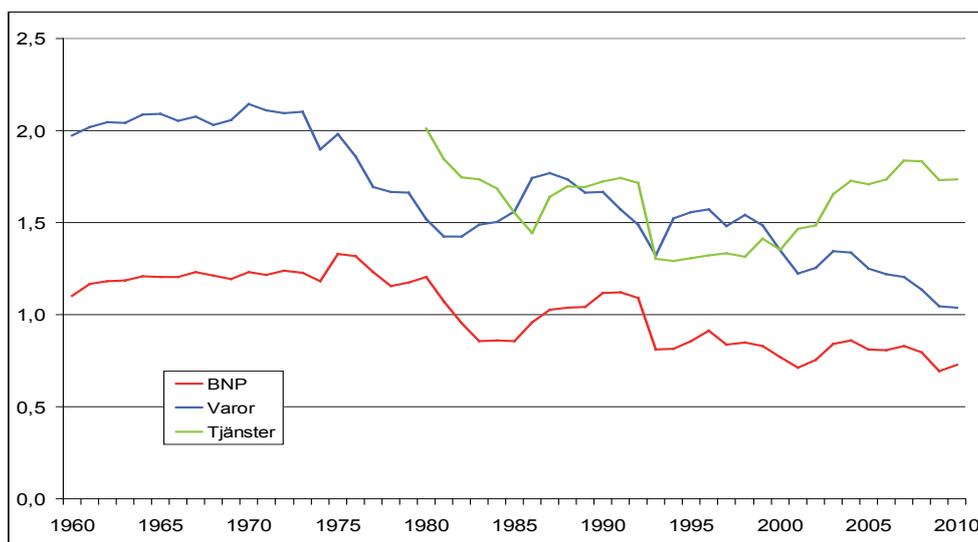
The knowledge-intensive service sector accounts for the greatest increase in employment<sup>3</sup>. The entire increase in productivity of the service sector which grew faster than goods manufacturing between 1960 and 2005, comes from non-personal services, i.e. largely in parts of the knowledge-intensive service sector<sup>4</sup>, such as corporate services and telecommunications<sup>5</sup>.

The extent of the development of the service sector, measured as a proportion of the employment GDP is, according to OECD studies, about the same in the rest of the western world.<sup>6</sup> Hence Sweden, is not exceptional, despite the rapid increase in employment in the service sector. However, with regard to research into services, we are exceptional. An extensive benchmarking report shows that Sweden has a comparatively low degree of publicly financed research focussing on service innovations.<sup>7</sup>

The Swedish share of the entire global foreign trade in services has increased since the mid-1990s, which means that Sweden deviates from the general trend with regard to the development of service exports. Sweden's service exports

have in fact increased faster than those of other countries, which indicates a strong degree of competitive strength. Our comparative advantages are considered to be in the area of computer and information services, communication services and other business services. Unionen has demonstrated, for example, that the interaction and mutual dependence between industry and services has increased.<sup>8</sup> Companies within industry account for the major proportion of Sweden's export of goods, but also for around a third of the service exports. Calculations by Tillväxtanalys (The Swedish Agency for Growth Policy Analysis) show that industrial companies that export both goods and services, have a faster rate of productivity growth than industrial companies that only export goods. <sup>9</sup>

Sweden's share of global GDP, goods exports and service exports respectively in percentage terms



Source: *Economisk Debatt (Economic Debate)* no 7/2011 "Service exports increasingly important for Sweden"

# Service companies employ a different business logic

Knowledge-intensive services are playing an important role in the renewal of the business sector, since the companies are promoting the development of new innovations by working closely with customers. This applies both for service companies and manufacturing companies. The value of services is determined by the benefit they create for the customer. Thus, a service linked to a known technology – for example apps in a mobile phone – creates value for the user where technology is of little importance. Apple does not sell iPhones because they are good telephones, rather because they offer easy access to media and Internet services. Similarly today, companies do not just sell a car, but also a driving experience, load capacity, safety aspects etc. as a whole concept around the car. At the point of sale, the discussion includes services such as car servicing and safety and reliability packages. Naturally, most of the service production depends on a product or a technology, but the aspect of the product with the greatest potential to create value is the services offered.

What is specific for the development of services is that the relationship with the customer and the understanding of the customer's needs are the decisive factors which will enhance the product (this is sometimes called the new service logic). If we compare manufacturing companies with pure service-producing companies, there is an important difference in the contacts with customers: in industry goods are developed and produced in one place and sold in another place. If there is a fault in the product, it is the sales staff that deals with the complaint, not the manufacturers. In pure service production, the service is sold in a direct meeting with the end customer, which means that those who developed the service often meet the users in person.

Since person-based services are entirely dependent on individuals (employees personify the service), it is important to standardise the service in different ways by creating a fixed concept to ensure that the customer gets the same service on each occasion. This also facilitates large-scale production of services. There may be manuals for the service content, the handling of customers, or deciding what basic competence the employees need, since this is often an important aspect of the product. This in turn affects personnel assignments with regard to recruitment, validation of knowledge and competence development.

Service innovations also comply with a different model than technical innovations. Service innovations often occur close to the customer and farther away from traditional research. The traditional idea of research which many of us have – including white coats and a laboratory – is not valid here. The fact

that customer relations are crucial for development means that the products become increasingly adapted to target groups and thus more specialised. One example of this is that not even a traditional industry, such as the production of sheet steel, is carried on without a customer first ordering exactly the kind of steel needed for their production. The sale of sheet steel looks different today too, since it involves engineers from the producer contributing their knowledge, to the customer's next production phase. This kind of service-based working method is also a very important success factor for industry.

# What is Service Research?

Research into service development is carried out in a way that contrasts with traditional research. The new logic concerning how services are developed close to the customer means that service research must be evaluated with different criteria than those used to evaluate traditional research. The researcher must also focus on the customer's problems and needs. Research based on rear-view analyses is becoming less relevant. Instead, it is becoming more important to see the future needs of customers. Traditional research methods, where the goal is to provide a backing of facts and scientific models, is not the main aim of service research. Instead, the researcher's method is to participate in developments so as to discover new ways of working and to organise arenas in which interested parties can meet and together come up with creative ideas.

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With this approach, the idea of what is an innovation is extended to encompass not only pure product development, but also situations in which new value is created for the customer. This means that methods for evaluating research must be revised to make service research comparable with other research.

The "service research" concept is used here to encompass research carried out to develop services. It may involve research on new ways to reach markets (new business models), organisational solutions, leadership, the interface with customers, customer behaviour, standardisation, service design, distribution systems, concept development, intellectual property legislation, or evaluation of intellectual property assets. This research is often generic i.e. the results may be used to develop an organisation in an industry other than that in which the research result was generated. The development of methods for selling, delivery and payment for services via the Internet, are examples of generic research. Customer behaviour is another area where research can be of benefit in several industries. For example, researchers have developed mathematical models concerning ways in which customers have chosen and changed to new telephone operators. This has been possible since Telia, as owner of a network, stores data concerning how customers switch between operators. Models can be used by other service-producing companies when they develop their business models. The corresponding mathematical models for optimal goods distribution have been in existence for some time, but they have not been applied in the service market.

Another research area is knowledge concerned with housing accommodation. When new town districts are built or the "Million Programme" housing project areas are renovated, more information is required concerning the inhabitants' behaviour and preferences. How do the inhabitants wish to live and

in what kind of houses? How do people move around in the area? What is important with regard to improved security/safety and well-being and possibilities of waste sorting? A growing interest in sustainable towns calls for development of this knowledge and building towns that are adapted to the people who will live there.

It is often difficult, and not always relevant, to differentiate the development of services and organisational or product development, since services are often baked into the product. However, it is important that we see the service content in a product so that we are able to relate to further investments in research and development of the product that are required.

Examples of areas where additional research would be of great use are:

Information technology is very important for the automation of services. Services can often be coded, split up, packaged and distributed through various IT solutions, and this creates good opportunity to increase productivity in service companies. Hence, services can be automated, just like production in an industrial company, and thus can become much more widespread. 11

The standardisation of services is an area that needs to be developed. Establishing standards or concepts for services would make it easier to transfer a service solution to another location or organisation, to sell it or package it in a way that would make it possible for other services to be connected, thus achieving an overall solution.

Research into the legal protection of services, and the way to define and make visible “soft” values in company accounts, is of great benefit to companies producing services.

# Development of Services within Companies

Many companies work in a very structured way with business development, or service innovation which is often what this involves. Meeting places and forms for receiving ideas and proposals are created, and in the best case they are developed without demands being made on them to achieve a new product. Successful development involves, for example, the company management, by its leadership, showing that priority is given to the development process and that it is permissible to “fail”. It is essential to allow time for people to reflect on those areas that are not part of their daily work routines if innovations are to ensue.

Research is an important source of information for companies working actively with innovations. Conversely, research groups at universities and university colleges need to be aware of companies’ needs and where they see potential for development. Meeting places and cooperation projects between companies and academic research institutes, with opportunities for unbiased exchanges, provide additional knowledge/information for both parties.

# Making the Value of Services visible

The transition to a more knowledge-intensive economy means that the fixed and financial assets proportion of corporate market value is declining. The intellectual property assets increase instead. Moreover, the entire market value of the company is not visible in the balance sheet; the total current share value of a company listed on the stock-exchange, never coincides in practice with the total assets of the company in the balance sheet. This difference between market value and assets is called goodwill and may, for example, be due to the value ascribed to the company's brand by the market, or because the company is considered to be particularly innovative. It is a question of elusive values that, using current methods of measurement, do not meet the current requirements for objectivity and transparency in company accounting.

Since a service, due to its abstract nature, may be more difficult to define and to evaluate than a product, and since the employees' knowledge forms a large part of the value of the service provided, standardisation is an important tool for creating a measureable and consistent value in service companies. Standards, documented agreements on functions, performance, characteristics, etc, are often a prerequisite for the establishment and dissemination of research results and new solutions. International standards make it possible to sell a product directly on the international market without having to be established in Sweden first. Standards are also important for customers, who can more easily compare and evaluate the services in which they are interested.

Employees leave their jobs and new employees are recruited. But how can value be retained in a company that sells time and knowledge? The answer is to document and create routines for the knowledge sold and the methods used, and thus bind the specific knowledge to the company in what is sometimes referred to as structural capital. Structural capital is everything that remains in the company when the employees (human capital) have left, for example software, patents and brands. Structural capital may also be created by documenting working methods and the elements that create value in the specific company – elements that are unique to the service sold or the brand represented. This may involve preparing detailed customer databases, follow-up systems, manuals for customer handling and the production of the service sold. With structural capital on board, the company becomes less vulnerable to the loss of employees. And it is also a way to make visible and upgrade the individual competence of employees.

Quite irrespective of whether structural capital is successfully bound to the company or not, the service-producing company is completely dependent on its staff for the maintenance and development of the operation. It is people

who make the company function today, and they will also ensure there is an even better product tomorrow. Last but not least, this is also a question of continuously building employee competence and giving employees the opportunity to develop. Moreover, if the employees have a good working environment and satisfactory conditions, the chances of the company retaining this competence over a long period will be greater.

It is not easy to protect the value of a service. Patents may be called for if the service is linked to a technical solution. Otherwise, it may be possible to apply brand, or design, or copyright protection. The intellectual property rights protection is also important in order to be able to attract investors to the company. A protected right may also contribute to value in the company since it may be transferred or licensed. Unfortunately, this is very expensive, which affects smaller companies' possibilities of applying for legal protection. Company advisors have proved to be inadequate in the rights issues area (with the exception of patents), and this affects service-producing companies.<sup>12</sup>

Research can increase knowledge about how services may be defined and made visible in company balance sheets. Research is also able to contribute to the development of new forms of rights protection that are more suited to the new services. The latter is an area of research that has been singled out as inadequately provided-for in a survey of service research.

# Is More Service Research Necessary?

Service research and development is being carried out in a great many large companies, universities and research institutions, without being termed service research. As a result, it is difficult to achieve an overview of this research and difficult to find the right publications using the “services” criterion. Since research in the services area is relevant for a considerable number of operations, it is particularly important that it is interdisciplinary in its approach. This makes it difficult to place service research in a specific compartment.

In 2009, Svenskt Näringsliv (Confederation of Swedish Enterprise), Almega (Employer and Trade Organisation for the Swedish Service Sector), and Tekniskföretagen (Employers’ Organisation for Engineering companies) conducted a survey of the situation in the service research area. The report considered that there is inadequate access to service research. Service researchers issue few publications, although there are possible reasons for this, such as the fact that service research may be part of a larger research project, where it is merely a side-line. Another explanation is considered to be that researchers are attractive on the labour market and therefore do not stay very long in the academic world. The smaller university colleges in Borås and Karlstad and also the Mid-Sweden University College are top of the list of places issuing service research publications as part of the total number of publications. However, only 2% of the total number of publications reviewed, are counted as service research in the study.

In the survey it was considered that: 13

- A better match, between R&D environments and directed at the business sector and the public sector would provide opportunities for many more people to benefit from the research
- More classification of the existing and ongoing research would provide a better basis for discussion of the research sections that are missing
- Service research is relevant input in technical and scientific faculties and may, if service research is upgraded, make the educational programmes more attractive
- A more systematic approach within service research would also make it easier to find international cooperation partners and, above all, provide more opportunity for the business and public sectors to benefit from the research

The fact that service research is often generic, i.e. that the results may be applied in quite different types of operations, means that a broad dissemination is important for gaining maximum benefit from the research. In this respect, service research may also be considered “inexpensive” since the areas of application are broader than for many other kinds of research.

Indicators that permit a comparison between Sweden and other countries with regard to innovation capacity, show that we are good at what is known as input, that is, for example, the amount of money invested in research, the number of postgraduate students and the number of patents granted in Sweden. However, Sweden does not compare favourably with other countries with regard to output, that is, the return on our investment. We are certainly above average with regard to refinement value in high-tech sectors (both goods and services), but when it comes to non-technological innovation, e.g. organisational innovations or those connected with markets/customer relations, we are slightly below the median value. Compared with the other indicators, this is a complete failure for Sweden. If we divide the indicator “refinement value of high-tech products” into products and services, it appears that goods are our strong point, while services are around the median value. Moreover, several of the input indicators are developing slowly over time, which means that Sweden’s prominent position is threatened. 14

Government support to non-technological innovation organisations is increasing in some countries, chiefly in Chile, Denmark, Finland, Great Britain and Brazil. They are aiming to increase awareness of this area by stimulating non-technological innovation operations in parallel with the technological ones. 15

# A New “Service Research Institute”

Sweden’s technical research institute, SP, (Swedish National Testing and Research Institute) has recently introduced a special unit for service research. This unit is to conduct research projects and work with assignments, largely financed by the business sector, just like other research institutes. SP is aiming at all companies that need to develop services, both pure service companies and other companies wishing to add services to their products. The public sector is also a target for the operation. The research will contribute to service innovations, more effective organisation of service activities and improved marketing of services.

There are 19 research institutes, based on government funding, reporting to the state-owned company RISE Holding, but with a considerable part of activities financed by the business sector. Many of them are involved in various kinds of service development, but at present there is no institute that works specifically with service research. The new service research organisations are not commissioned by any authority and are therefore not responsible for the coordination and dissemination of the result.

Nevertheless, it is very positive that a special institute for research into services has now been set up.

Industrial research institutes are good at linking expertise in research and the business sector that lead to commercially viable innovations. The fact that SP is established in Karlstad means that it is able to have close contacts with the CTF Service Research Centre at Karlstad University.

At the same time, it is important that service research is spread to many more industries so that the best possible benefit is obtained. It is also important for service research to meet needs throughout Sweden, i.e. that there are no geographical limits. Starting an institute in Karlstad does not reduce the need for a body with a government assignment to act as the knowledge-base for national and international research and to be responsible for the dissemination of research and utilisation in companies and the public sector. Therefore, Unionen considers that this new institute needs to be augmented by further initiatives.

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The service content in the Swedish economy is increasing, both in terms of the number of people in employment, the contribution to GDP and in proportion of Sweden's total exports. This is also increasing the importance of strong service development in the business sector. The development, production and sales of services and goods are now closely linked. Investments in service development contribute to increased profitability, not only in the service sector, but also to a high degree in manufacturing industry, which is a major purchaser of services and also conducts extensive service activities under its own auspices. Service innovation is, therefore, an important competitive factor for Swedish companies and something which research can help to reinforce. Unfortunately, many people have only a vague understanding of what service research entails. In this report, we aim to extend knowledge of, and emphasize the importance of, further investment in service research.

Unionen is Sweden's largest trade union in the private sector. Together, we achieve success through development, security and satisfaction in working life.

The logo for Unionen, featuring the word "UNIONEN" in a stylized, white, sans-serif font with rounded letterforms, set against a dark green background.

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