

EXECUTIVE SUMMARY

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THE SERVITIZATION OF BUSINESS AMONG INDUSTRIAL COMPANIES IN CATALONIA

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Executive summary

Motivation

At different political levels (European, Catalan and Spanish), there is a growing interest in revitalising the industry. The pandemic and disruptions in transcontinental supply chains have recently increased this interest. To strengthen the industrial sector, investment in technology and productive capacity is obviously essential. At the same time, it is noted that "servitisation" and adding layers of (smart and digital) services to the products and assets that industry manufactures and sells is another important ingredient in making manufacturing work competitive and innovative, and ensuring that higher value-added activities are not offshored. Moreover, the development of service businesses by manufacturing companies serves to enable them to take advantage of the digital transformation to strengthen market relationships and empower their employees to advise customers on the use of the products they buy.

Against this backdrop, we look at what servitisation consists of, how it manifests itself, what benefits it offers and what barriers can hinder it. In addition, we interviewed a number of Catalan companies that are developing their service businesses to offer testimonials on various aspects of relevance in relation to servitisation. In the same way, we carry out a statistical analysis of the evolution of service revenues in the Catalan industrial sector to report on the factors that facilitate or hinder the obtaining of profits through the provision of services. Finally, we review some foreign public initiatives in favour of servitisation to see what lessons can be learned from them.

Findings

Servitisation refers, in the first place, to the trend among manufacturing companies to base their business not only on produced goods, but increasingly on services. This implies broadening the portfolio of value propositions for the market, offering both services and products. At the same time, it means generating revenue from the provision of services and not only from the sale of goods.

Furthermore, servitisation involves the development of competencies by manufacturing companies to provide services to their customers, which entails an organisational transformation and the acquisition of capabilities to interact more closely with customers and users of the products, appliances, devices and equipment that manufacturing companies bring to the market.

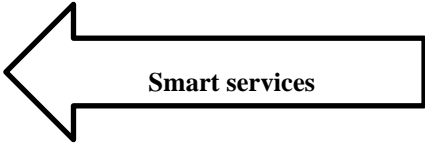

Finally, servitisation implies the possibility of applying new ways of capturing revenues or charging for their value propositions in order to make profits more recurrent and robust. For example, formulas such as product-as-a-service, pay-as-you-go, performance or availability, leasing/renting or subscriptions are used.

It is undeniable that servitisation is a trend whose potential increases when combined with digitisation and digital transformation. Moreover, the services that offer the greatest potential for business growth and contribute most to customer loyalty are digital or advanced services

that are based on continuous interaction and close cooperation between provider and user, and which are supported by a constant flow of real-time data that is available to both parties.

In this way, we can differentiate services according to their degree of "framing" (smart services) and the potential they offer to apply "smart payment formulas - or business models", enabling the "monetisation of services", as the following matrix illustrates.

Table 1.1 Synergies between servitisation and digitisation

	Servitisation	Digitisation
Merchandise orientation / transaction value		
	Servitisation of revenue streams. Increased % of total turnover from service provision (e.g. through preventive maintenance, consultancy to improve asset utilisation and operations execution).	Digitisation of products: "Internet of Things" (e.g. equipping products with sensors and information and communication processors that warn about the use and condition of goods).
Process orientation / value per use		
	Servitisation of business models: commercialisation of product- service systems with pay-as-you-go, pay-as-you-go, pay-as-you-go or subscription-based payment modes.	Digitisation of supplier-user relationships (e.g. through technology applications such as cloud computing for data sharing, IT integration systems and advanced services involving the supplier in the customer's operations).

Source: Own elaboration

The potential benefits of servitisation for manufacturers developing a service business include the following:

- helps to stand out from the competition;
- avoid entering into a spiral of commoditisation and price-based competition;
- contributes to customer loyalty;
- promotes a better understanding of what the user really wants and how he/she uses a manufacturer's products;
- improves the basis for optimising the design of the next generation of a product or good;
- makes a manufacturing company's total revenues more sustainable and less volatile.

As barriers that can slow down the implementation of servitisation, we point out:

- clinging to the factory character that can distinguish a manufacturing company and that anchors it in a product-dominant logic (*lock-in* or mental inertia);
- consider that services are a distraction and have a high opportunity cost because part of the workforce has to spend time serving customers, which takes time away from productive tasks;
- reluctance to move up the value chain and take on responsibilities or risks that were previously the responsibility of the customer;
- The prospect of making a large sum of money on delivery of a product is more attractive to many companies than the prospect of a regular, but spread out, income over time;
- oppose changes in the organisational chart and prevent the service business from having its own prominent place within the organisational structure of a company;
- not recruiting or training human resources who have the commercial and service drive required to build a service business.

Beyond the barriers that prevent servitisation from really taking off, there are also other issues that, even if companies are committed to a service business, prevent the results of this trend from being translated into direct revenues. The most important of these is the phenomenon of "hidden servitisation", i.e. service provision activities that do not generate revenue and are therefore not reflected in profit and loss accounts or in the records of statistical institutes through their surveys. This phenomenon is not trivial, and many industrial companies encounter problems in charging for their services. During the interviews with the selected companies, we encountered this problem on several occasions.

Therefore, we believe that the financial dimension linked to servitisation is very important and often not given enough attention. Moreover, servitisation is not only a process of organisational and cultural change, but also from the point of view of the company's financial management, pricing and monetisation of value propositions and business model design, even more so if we consider services that are charged on a pay-per-use basis or joint offers of products and services whose "consumption" is billed as if it were a service. These circumstances affect accounting, cash flows and financial risks taken together with the supplier.

This may lead industrial companies to consider partnerships with financial service providers (leasing, fintech or industrial asset management companies), which is a sign that servitisation requires operating in networks or in a value chain. In other words, if there is one thing that characterises servitisation, it is the interdependence it fosters between suppliers and buyers, the latter term being understood both in the B2B sense (link by link in a chain) and with the meaning of end-user. Therefore, for servitisation to work, all the actors involved have to work together, as it is very difficult for one of them to successfully deploy a new service initiative if they cannot count on the action of those around them.

The following illustration summarises the many lessons that could be learned from the interviews with the selected companies.

Ilustración 1.1 Summary of the lessons learned from the Catalan companies analysed in terms of servitisation



Source: Own elaboration.

The following findings can be highlighted from the statistical analysis.

The overall evolution of service revenues in the Catalan industrial sector is favourable and increased from 5.7% of total sales in 2008 to 7.2% in 2019.

If we focus on the factors in which the Catalan industrial companies that show the greatest growth in service revenues coincide, we see that servitised companies have a larger average size, are more productive, are more internationalised, spend more on external R&D services - as well as on other professional services- and invest more in intangible assets (computer applications, patents, brands, licences , etc.) per employee. Although these patterns are observed, when examined statistically, it turns out that only a few of them are significant. The results of the statistical tests highlight above all investments in intangibles as a catalyst for servitisation.

Where we do see more clearly the beneficial effects of servitisation is in the performance it generates in Catalan industrial companies, as it positively influences job creation and increases productivity and sales.

At the same time, we find that the branches of industrial activity with above-average servitisation show higher growth in job creation, while the subsectors of industry with the greatest weight in absolute terms show low rates of servitisation. This may indicate that there is an inverse dynamism between "weight in employment" and "servitisation" at sub-sector level. If this were the case, it would be a relevant fact for *policy makers* and a signal to apply servitisation in larger industries, which are not yet able to take advantage of the beneficial effects of servitisation on job creation.

Implications

Interaction with the companies interviewed has shown that servitisation is a process that requires perseverance. It is not a concept that is implemented easily and quickly, as it involves organisational changes, developing new value propositions, innovating ways of charging for them, convincing the market of the new ways in which the company wants to meet demand, and often acting in cooperation with third parties to offer new services and make them sustainable.

We see that developing and commercialising new services is not only a matter of R&D, but also of changing the market perception of an industrial company (it must develop the necessary resources and structures to be able to provide services and work on its image and competencies to gain credibility and acceptance in the market as a provider of such services) and of developing a network or ecosystem to support it in its service operations. The latter is often a key aspect for servitisation to work, it is rarely the result of acting alone. Therefore, it is usually necessary to align other actors with a company's plans to develop its service business. It is important to avoid having links in the chain (upstream) that do not gain when one tries to implement services or, alternatively, to charge for products as if they were services (through pay-as-you-go and other product-as-a-service formulas).

Statistical analyses also warn that the product-dominant logic may lead many industrial companies to neglect the service business in bad times, which is a mistake. During a crisis, service revenues decline when they can act as a cushion, as they tend to represent less cyclical and volatile profits. Therefore, if service business shrinks during times of crisis, it is presumably because it is not given sufficient priority or because the service culture (or service-dominant logic) has not taken deep root in industrial companies. This also underlines the importance of considering servitisation as a process and a long-term commitment rather than as an *ad hoc* event or decision.

At the same time, it is important to note the high likelihood that a considerable proportion of service businesses do not charge for their services. This can jeopardise the viability of service businesses, so it is very important to educate businesses to implement cost-effective ways of charging for their services. Indeed, the interviews with the selected companies made it clear on more than one occasion that charging for services is difficult, but that it is not sustainable to give them away or offer them continuously without recovering costs.

As a consequence, making companies aware of for-profit (not *pro bono*) servitisation so that they develop business plans for it in time is a recommendable task that deserves the support of administrations. Teaching competencies in pricing strategies and business model design seems imperative in this context.

In relation to the issue of taking into account suppliers and other actors forming a network or a value chain around a company that wants to servitise, this is an idea that the Interreg ProsperAMnet project (analysed in the *benchmarking part*) strongly supports, both with regard to the development and implementation of new services and to a possible internationalisation of the service business.

In this respect, we can add that statistical analyses show a synergy between the level of internationalisation of industrial companies and their degree of servitisation. This strategy therefore generates additional potential for foreign trade, especially if industrial companies allow themselves to be supported or surround themselves with the right partners.

Working in cooperation and in the form of ecosystems to boost the servitisation of industrial companies is an issue that can be very opportune to address through the many cluster associations that exist in Catalonia. They constitute very useful platforms to join forces around a common business purpose that requires thinking transversally or along a value chain. Such chains can be found within the same cluster or linking members of different clusters that have *input-output* links with each other.

Our statistical analyses give counter-intuitive results on the added value of industrial firms engaging KIBS (knowledge-intensive business service providers). It turns out that they are not a significant help and this fact may contradict the idea that cooperation with external KIBS matters for servitisation. In other words, we see a synergy between digitalisation and servitisation. Companies that invest more in ICT and software applications achieve better results in their service business. This encourages us to continue to invest in concepts such as digital transformation and Industry 4.0 in combination with servitisation.

Another issue highlighted by our analyses, both the fieldwork and the quantitative exercises, is that servitisation is not necessarily an issue only for large companies. The larger the size, the more resources there may be to devote to developing a service business, but it may also be more difficult to start up and organise. It is clear that servitisation needs to be carefully prepared, but we also see that streamlining processes and quickly aligning with the opportunities on the market on the one hand, and mobilising the required means on the other hand, is something that SMEs are very good at.

We also observe an interesting relationship between the registration and use of intangible assets (patents, trademarks and others) and service revenues. The more companies activate such intangibles, the more advanced their services business tends to be. The crucial point is the ability of companies to put a value on "*credence goods*", whose qualities or properties are difficult to measure and transfer. This is characteristic of both intangibles and services (which are themselves

more intangible than products). Therefore, training companies to manage and value intangibles can be synergistic with the development of service businesses. Similarly, training companies to determine the value of services in the hands of their customers or the opportunity cost of not having them is another area to work on in servitisation because it can bridge the gap between "developing and delivering services" and "charging appropriately for them", as well as transforming services into a source of profit.

By way of conclusion, we borrow the following recommendations from the Interreg THINGS+ project:

- promoting R&D&I around services and systems combining products plus services;
- fostering external or open R&D&I between teams from industrial and service sector companies or KIBS (especially digital and technology);¹
- support the export or internationalisation of services by industrial companies.

¹ The Basque Country's BIND 4.0 initiative is also inspired by this idea: it is an open innovation programme launched by the Basque Government that connects established companies with digital start-up teams. It aims to improve the capacity of established companies to face the challenges of digital transformation, while offering opportunities for start-ups to gain customers and fostering their emergence in the Basque industrial ecosystem. <https://bind40.com/>



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