SPECIAL THEME - HIGH VALUE ADDED, RESILIENT AND SUSTAINABLE INDUSTRY

SERVITIZATION: A SERVICE-BASED RESILIENCE STRATEGY FOR MANUFACTURING FIRMS

Any manufacturer, big or small, can servitize. Although servitization does not represent a panacea for manufacturers, it is a concept of significant potential value, providing routes for manufacturers to move up the value chain and exploit higher value business activities, therefore contributing to the resilience of manufacturing companies.

MIGUEL LEICHSENRING FRANCO ⁽¹⁾ BERNARDO ALMADA-LOBO ^(2,3) RUI SOUCASAUX SOUSA ^(4,5) ⁽¹⁾ SCHMITT-ELEVADORES, LDA

⁽²⁾INESC TEC
⁽³⁾FACULTY OF ENGINEERING OF THE UNIVERSITY OF PORTO
⁽⁴⁾CATÓLICA PORTO BUSINESS SCHOOL
⁽⁵⁾CATHOLIC UNIVERSITY OF PORTUGAL
m.franco@schmitt-elevadores.com
almada.lobo@fe.up.pt
rsousa@porto.ucp.pt

Manufacturing companies in developed economies face strong competition from companies based in countries where labor costs are lower. The former companies tend to focus on two strategies: product innovation and cost reduction. These are often associated with the use of new materials or technologies, automation and more precise machinery, as well as lean programs. There is, however, a complementary way that is often overlooked: creating value by adding services to products. Through the bundling of services and products, the manufacturing company can differentiate its offering by reinforcing the relationship with the customer, and therefore creating new sources of revenues that are more stable and resilient to the economic cycles. By including additional services into their total offering, manufacturers can create new growth opportunities in mature markets. Manufacturing firms can sell multiyear service contracts that, although generating smaller revenues than product sales, yield regular revenue streams that can smooth the effect of lumpy product sales revenues. Furthermore, the product-service combinations also seem to be less sensitive to pricebased competition, thus providing higher profitability levels in comparison to the physical product offerings alone.

In simple terms, servitization refers to manufacturing companies starting to sell services bundled with their products, creating value for the customer. In a serviceled competitive strategy, the manufacturer can follow different paths. One option is to provide a portfolio of relatively conventional services (the so-called basic services), like the inclusion of an additional warranty period, the sale of spare parts, preventive maintenance, repair or overhaul of installed equipment, or even their remote monitoring. The other option, on top of basic services, is to sell advanced services, where the manufacturing company takes control of all activities that are integrated into the customers internal processes, by means of long-term pay-for-use contracts.

There are many successful examples of servitized manufacturers. Xerox, which manufactures printers and copier machines, was one of the pioneers in servitization. Instead of solely selling equipment, it started offering a complete printing solution to its business customers. These customers pay only for each copy made, without having to acquire the equipment (i.e. they will not own the printer). According to this business model, the manufacturer provides remote monitoring of the printer and replaces the toner whenever needed, without any intervention from the customer. In case of a malfunction, the printer itself sends an alarm to the central system and a technician is sent onsite, without further costs to the customer. Throughout the contract, and with no investment in hardware, the customer pays a monthly fee according to the copies made (pay-per-use). The end game for the manufacturer is being able to lock in the customer with a predictable cash flow. This strong

customer relationship also fosters cross-selling from the manufacturing company. In this case, the manufacturer provides a document management solution, selling advanced services.

Fricon manufactures and sells refrigerator cabinets and freezing and frosting solutions for supermarkets. If Fricon were to sell only the equipment, it would be dependent on the investment cycle of the supermarket sector. Imagine now that this producer installs a machineto-machine (m2m) communication system in the equipment that it sells, allowing for remote monitoring. Whenever the temperature of the refrigerator cabinet exceeds a certain threshold, an alarm signal is sent to the manufacturer's centralized monitoring system. A technician immediately goes onsite to fix the problem. According to this business model, the manufacturer sells an additional service to the supermarkets – such as remote monitoring and corrective maintenance, locking in the customer with a long-term service contract. All in all, new and more stable sources of revenues are generated through advanced services.

Hilti is a world-leading manufacturer of power tools for the construction, building maintenance, energy and manufacturing industries, mainly for the professional end-user. Following its customers' needs, Hilti moved from selling power tools to its customers, to leasing them as a service. Its Fleet Management (FM) offering allows customers to use a defined set of tools for a multi-year fixed period. The fixed monthly rate paid by the customer covers all the costs with tools, including their use, service and repair costs, and minimizes downtime. Moreover, the tools in the fleet are regularly replaced with novel models that comply with the latest safety standards. Not only is FM benefiting Hilti's customers, but it also allows Hilti to cooperate even more closely with its customers, thus creating entry barriers for the competition, while providing advanced services.

Caterpillar is an equipment and power systems manufacturer that provides life support systems for all of its equipment and power systems (condition monitoring). Caterpillar has shifted its strategy from solely manufacturing and selling construction equipment to adopting leasing and remanufacturing strategy. Caterpillar guarantees revenues per operating hour of equipment, which includes all maintenance and repair activities; it also guarantees the availability of equipment. Remote monitoring technologies are used to track the state of the assets and make predictions about service and support requirements. Real time data is used to help optimize the performance of the client's business, by minimizing equipment downtime and operating costs. Caterpillar clients are requesting long-term partnerships (through advanced services), where the manufacturing company takes on and manages risk that the client used to carry.

In conclusion, manufacturing companies from different sectors are beginning to understand the strategic importance of service to gain a competitive advantage. The integrated product-service offerings can be distinctive, long lived, and easier to defend against competition from lower-cost economies, being a conscious and explicit strategy for market differentiation. Ultimately, it brings a stronger competitive advantage. From a manufacturing company perspective, servitization can lead to increased sales revenues. By responding to the demands of customers, manufacturers can prevent competitors from gaining a foothold in their markets. Servitization can also deliver increased customer numbers and growth with existing customers through closer and stronger relationships, as improved customer intimacy can lead to opportunities for new services. From a customer perspective, it may help reduce risk and lower maintenance and support costs, or at least make them more predictable. Clearly, customers of servitized manufacturers benefit from improved asset management. Another key advantage for customers is that servitized contracts allow them to focus on their core business, improving their competitiveness through better service quality to their own customers. Any manufacturer, small or big, can servitize. Although servitization does not represent a panacea for manufacturers, it is a concept of significant potential value, providing routes for manufacturers to move up the value chain and exploit higher value business activities, therefore contributing to the resilience of manufacturing companies.



Franco, Miguel L. (2020), "Servitization of manufacturing firms over time: An empirical investigation in the elevator industry". PhD thesis,184 p., https://repositorio-aberto.up.pt/ bitstream/10216/128473/2/412036.pdf

Sousa, R., da Silveira, G. (2020), "Advanced services and differentiation advantage: An empirical investigation". International Journal of Operations & Production Management, 40(9), 1561-1587.

Baines, T., Bigdeli, A., Sousa, R., Schroeder, A. (2020), "Framing the servitization transformation process: A model to understand and facilitate the servitization journey". International Journal of Production Economics, 221, 107463.