

PRODUCT-SERVICE SYSTEM IN TELECOMMUNICATIONS INDUSTRY

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OBJECTIVE

The product-service system represents set of products and services combined to jointly achieve the customers' needs (Annarelli et al., 2019). Due to digitalization, there is an increasing number of new products, each offering some additional features and services. Added value of integrated product-service system usually lies behind services which are offered with products (Kryvinska & Bickel, 2020; Polova & Thomas, 2020).

Literature findings show different motivations for servitization: to create competitive advantage, to improve the quality of customer relationship, to expand portfolio and create new sources of income (Raddats et al., 2016; Bigdeli et al., 2018).

In the telecommunications industry, from operator perspective, systems are usually bought from supplier and integrated in the network, where supplier provides maintenance and support for products. This model doesn't give much flexibility to operator. In the competitive market such as telecommunications, there is a wide range of new digital products (it is not easy to identify which one to choose). Wide market, customer needs, complexity and diversity of products demand new concepts in telecommunications.

The objective of the paper is to investigate product-service system and different forms of servitization in telecommunications industry. The relationship between the supplier (the one who develops and offers complete service) and customer (mobile operator) is analyzed. Three different servitization examples are compared and evaluated. Key elements used for studying cases are: ownership of the service, payment model, maintenance and development capabilities.

Tested hypotheses are the following:

H1: Servitization can give competitive advantage for the supplier.

H2: Servitization leads toward partner relationship between the supplier and the customer.

H3: Product service-system can help customer reduce risk and decrease initial investments in the new systems.

The study offers insight into how companies create integrated packets of products and services, shows examples of good practice and confirms some of the motivations for servitization found in literature.

METHODOLOGY

For the purpose of the research, a case study approach in mobile operator company is conducted. The research includes the analysis of a process for supplier selection for one cloud solution. Main method of data gathering is in-depth interviews with employees involved in solution selection process (such as product manager, senior purchasing expert, controlling expert, team manager and solutions director), and these data are to be complemented with materials used in selection process (offers, documentations, manuals).

RESULTS

The results of a case study should confirm that servitization, even though not a new concept in telecommunications industry, is evolving and that there are new forms of product-service system, going

beyond services like maintenance. These forms are beneficial for both customer and supplier. This should mean closer collaboration between customer and supplier, moreover collaboration is evolving towards partner relationship. Additionally, fixed price for a service over an agreed period is no longer attractive for customers, and, also, the ownership of a system is not necessarily transferred to customers.

Criteria that should be taken into consideration when creating product-service package are: cost reduction, risk and service quality, customer budget, complexity of the system, familiarity of the customer with the system, flexibility of the system and customer necessity to buy the system (or renting a service is enough).

CONCLUSION

Product-service system can be beneficial for both supplier and customer in telecommunications industry. The process of servitization should give competitive advantage for the supplier. Understanding the customer needs, weaknesses and strengths is very important in this process.

The findings of this paper should complement the literature for product-service system and should offer concrete inputs for companies in terms of how to better organize their business and gain advantage on the market, based on real-life examples.

The paper is basically a case study and being so is aimed to illustrate possible applications of the servitization process. For better understanding of the process, quantitative research might be conducted.

Keywords: *product-service system, servitization, telecommunications*

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