

Evaluating the Adoption of Integrated Project Teams as Strategic Form to Underpin PSI Systems in Servitizing Manufacturers

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Abstract

In the search of competitiveness in the knowledge-based economy, developing a successful Product-Service Innovation (PSI) becomes crucial for many manufacturers. In this context, the different configurations that PSI systems may adopt is being object of intense debate. Under this environmental uncertainty about the most accurate configuration, manufacturers make different strategic choices ranging from in-house development to outsourcing, different types of alliances or even mergers & acquisitions. Lately, some manufactures are deploying a recent configuration by adopting project integrated teams as a new way to develop PSI. Following a multiple case-study approach, we expect to assess four main factors surrounding PSI systems configured by manufacturers through creation of projects integrated teams: 1) degree of technological innovation and complexity of PSI; 2) degree of servitization in their business model; 3) Organizational barriers to advanced services introduction; 4) benefits and competitive advantages arising from the implementation of a project- based operation. In the final discussion and conclusion derived from our research we will delve into the study of PSI in project-based context by providing new knowledge to illustrate this operational change and how it influences value creation and business model configuration in servitizing manufacturers.

Keywords: PSI systems, Advanced Services, Organizational Design, Integrated Project Teams.

Introduction

The introduction of services to business models in manufacturing businesses to create value has been widely defined as servitization phenomenon (Baines & Lightfoot, 2013; Bustinza, Vendrell-Herrero, & Baines, 2017) With the sustained development of servitization in recent years, manufacturers are in a continuous search of competitiveness through the implementation of successful PSI systems (Bustinza et al., 2019; Cusumano et al., 2015; Rabetino et al., 2018). PSI can be understood as the offering of new services, based on the use of innovative technological developments, which are able to generate adding-value throughout lifespan of products (Bustinza et al. 2018; Vendrell-Herrero et al., 2017). As a particular type of innovation, PSI implies deep organisational changes to adapt business to external environment and be able to provide market-oriented solutions (Bustinza et al., 2019; Pleiss, 2007).

Previous research suggests that to structure for PSI systems, organizations have to explore organizational design decisions to be successful (Raja et al., 2018, Rubalcaba et al. 2010, Santamaria, Nieto & Miles, 2012). Among the many complexities to achieve success in the servitization process, understanding what makes a PSI system configuration being successful and profitable, emerges as a key factor (Bustinza, Vendrell-Herrero & Gomes, 2019). Recent studies delve into how in-house PSI leads the development of internal innovation capabilities (Cusumano et al., 2015; Kindström & Kowalkowski, 2014). But also, other authors have showed that many manufacturers are not able to develop these capabilities internally, and embrace different types of intern-firm collaborations, including

partnerships, mergers & acquisitions or alliances (Schroeder et al., 2016; Bustinza et al., 2019; Lafuente et al. 2017).

Therefore, literature remarks these strategic choices to develop PSI internally or externally as a decisive successful factor (Raddats et al., 2017; Lafuente, Vaillant & Serarols, 2010; Vendrell-Herrero et al. 2014). There is however in-between a third way, whose exploration, will be the aim of this study. Integrated project team is a system of collaborative working which have acquired increasing popularity in engineering sector (Park et al., 2011; Roehrich et al., 2019). These configurations include team members from different actors of the value chain (manufacturers, suppliers, client) working together and cooperating to achieve a shared aim (Kent & Gerber, 2010; Raja et al., 2018).

In this paper, by analysing this new type of configuration applied on PSI system, we will address the lack of theorizing of how IPT configuration could influence strategic choices at organisational level for manufacturers offering advanced services. Further, we contribute to extend the knowledge on how innovation processes take place in that case. Likewise, we will try to study external and internal factors that potentially may make this configuration choice successful and ultimately collaborate to offer servitizing manufacturers new insight into new strategic forms.

Methodology

We adopt a qualitative approach through a multiple-case study of servitizing manufacturers implementing integrated project teams as organisational configuration for PSI. Our selected companies are being analysed to find out critical information about benefits and drawbacks of this configuration by analysing: 1) degree of technological innovation and complexity of PSI; 2) how servitized the business models are; 3) Pre-existing organizational barriers to

deploy PSI; 4) benefits and competitive advantages derived from this configuration in the servitization context.

Findings

Our preliminary findings bring new knowledge to illustrate the operational change influencing innovation management, value creation and business model design in manufacturers by adopting IPT configuration. These new strategic form increases the capability of involved organizations to co-innovate and strengthen competitive advantages thanks to a more collaboratively intensive relationship between involved actors. Also, lateral communication and speed of decision making seems to be common advantages in this type of PSI systems. On the other hand, the required high level of coordination and trust arise as main barrier to success in such configuration. Regarding limitations, we are aware about difficulties to generalize results because of the multiple-case study approach.

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