Industrial Marketing Management 45 (2015) 70–83

Contents lists available at ScienceDirect

Industrial Marketing Management

# Organizing for solutions: How project-based firms integrate project and service businesses

Karlos Artto *, Aku Valtakoski, Heikki Kärki

*Aalto University, School of Science, Otaniementie 17, P.O. Box 15500, FI-00076 Aalto, Finland*

A R T I C L E I N F O

*Article history:*
Received 15 September 2013
Received in revised form 20 May 2014
Accepted 10 June 2014
Available online 8 March 2015

*Keywords:*
Solution business
Project-based firm
Projects
Services
Integration

A B S T R A C T

Project-based firms (PBFs) increasingly provide comprehensive solutions that consist of products, product systems and services. In solution businesses, long-term collaborative relationships between solution providers and customers are essential. However, little is still known about how relationship marketing activities should be integrated across organizational units, particularly at the practical level of delivering individual projects and services belonging to complete solutions. In this study, based on a case study of a project-based firm and four of its system delivery projects, we identify eight micro-level integration mechanisms for integrating the activities of the project and service business units at the level of delivering a single solution. The joint participation of both project and service business units in project and service activities over the life cycle of a single delivered system enhances the management of customer relationships between the units, and ensures the continuity of the customer relationship over the system life cycle. The identified integration mechanisms also help PBFs to integrate services into their core business and overcome the problems arising from the discontinuous nature of project business.



## 1. Introduction

The provision of services has become crucial to virtually all previously product-centric firms (Bitner & Brown, 2008; Neely, 2008), and many manufacturers now provide comprehensive solutions that include products and services that cover the entire life cycle of the delivered system (Davies, 2004). Solution provision over the system life cycle requires system supplier firms to move towards a service-dominant logic (Vargo & Lusch, 2004) that emphasizes the importance of value co-creation through continuous, long-term customer relationships, and requires firms to adopt a relational approach when interacting with their customers (Helander & Möller, 2007; Penttinen & Palmer, 2007; Spekman & Carraway, 2006; Tuli, Kohli, & Bharadwaj, 2007).

This is particularly true for project-based firms (PBFs) that deliver complex product systems – or capital goods systems – to industrial customers, and use projects as specific organizational forms to deliver these systems (Davies & Hobday, 2005; Hobday, 2000; Tikkanen, Kujala, & Artto, 2007). As indicated by research on project marketing, customer relationship discontinuity is one of the key characteristics of project business (Cova, Ghauri, & Salle, 2002; Hadjikhani, Lindh, & Thilenius, 2012; Mandják & Veres, 1998; Skaates & Tikkanen, 2003), and makes the management of customer relationships over sleeping phases (Hadjikhani, 1996) between delivery projects a key priority for PBFs (Cova et al., 2002; Mandják & Veres, 1998). Recent research has argued that PBFs should use services to bridge these sleeping phases in customer relationships, as continuous service provision enables uninterrupted, close and active relationships with customers (Cova & Salle, 2007; Davies, 2004; Vargo & Lusch, 2008). Empirical evidence shows that PBFs have indeed expanded their service offering beyond system delivery projects (Artto, Wikström, Hellström, & Kujala, 2008; Kujala, Artto, Aaltonen, & Turkulainen, 2010; Kujala, Ahola, & Huikuri, 2012) by providing services such as system maintenance or operations outsourcing (Cova & Salle, 2007; Davies, 2004; Jalkala, Cova, Salle, & Salminen, 2010; Oliva & Kallenberg, 2003).

However, despite the importance of managing customer relationships in an integrated manner in complex solution markets (Day, 2000; Piercy, 2009), relatively limited research exists on how to organize and integrate relationship marketing across organizational units (Maltz & Kohli, 2000; Möller & Rajala, 1999; Workman, Homburg, & Gruner, 1998). As extant research (Brax & Jonsson, 2009; Galbraith, 2002; Gebauer, Pütz, Fischer, & Fleisch, 2009; Miller, Hope, Eisenstat, Foote, & Galbraith, 2002; Oliva & Kallenberg, 2003) suggests, PBFs, and solution providers in general, should organize their operations in separate project and service business units. Therefore, the integration of the two businesses — i.e., project and service businesses, for coordinating relationship marketing becomes a key issue for these firms. While this issue has been studied at the organizational unit level (Maltz & Kohli, 2000), little research exists on how this integration is organized in practice at the level of individual projects and services.

* Corresponding author. Tel.: +358 50 560 4751; fax: +358 9 4702 3665.
*E-mail addresses:* karlos.artto@aalto.fi (K. Artto), aku.valtakoski@aalto.fi (A. Valtakoski), karki.heikki@gmail.com (H. Kärki).

http://dx.doi.org/10.1016/j.indmarman.2015.02.021
0019-8501/

Our paper explores the integration across project and service businesses by addressing the research question "How do project-based firms integrate project and service businesses over the system life cycle of a delivered system?" More specifically, we seek to understand the practical micro-level integration mechanisms used by PBFs to enhance the collaboration between the two business units and hence the continuity of the customer relationship over the system life cycle of a single delivered system.

We address the research question through an embedded case study of a PBF called "ManuCo". We explore the organizational mechanisms used by ManuCo to foster the collaboration between its project and service business units by studying in detail four successful system delivery projects over both project phase (covering system marketing, sales and delivery) and service phase (covering the operational use of the system and the provision of services). As a result, we identify eight distinctive micro-level integration mechanisms that enhance the management of customer relationships through the integration of the project and service businesses at the level of project and service activities in the system life cycle.

Our study contributes to research on project marketing and the organization of services and service businesses in PBFs. Most importantly, the empirically derived eight integration mechanisms demonstrate how project and service business units can be integrated at the level of the life cycle of a single delivered system. Furthermore, we argue that the mechanisms provide an organizational solution for creating continuity in the customer relationship over project and service phases of a solution delivery, thus mitigating the well-known problems caused by the discontinuity of customer relationships in project businesses. From a theoretical perspective, our study elaborates how PBFs manage customer relationships through the use of micro-level integration mechanisms for integrating project and service businesses. Our study thus extends the theories on management of relationships in project marketing research to the case where a PBF concentrates on offerings over a whole system life cycle of a delivered system by setting up a distinctive service business to accompany the PBF's project business.

## 2. Prior literature

### 2.1. Project-based firms

In many industries firms offer solutions that are unique, are based on complex systems with multiple technologies, and include components integrated from multiple subcontractors' offerings (Davies, Brady, & Hobday, 2007; Hobday, 1998, 2000). The delivery of large and complex systems has prompted solution providers to adopt project as a specific form of organizing their business activities (Cova & Holstius, 1993; Cova & Salle, 2005; Davies & Hobday, 2005; Tikkanen et al., 2007; Whitley, 2006). These firms have become project-based firms (PBFs) that customize and deliver complex capital goods as solutions to their customers. These firms are also often referred to as complex products and systems providers (Davies et al., 2007; Hobday, 1998), system suppliers (Helander & Möller, 2007), systems integrators (Davies, 2004; Hobday, Davies, & Prencipe, 2005), system companies (Bonaccorsi, Pammolli, & Tani, 1996), and service-enhanced firms (Gann & Salter, 2000).

The solutions delivered by PBFs are typically used by customers in their own core business to produce further goods and services; in this way, PBFs engage in value co-production with their customers (Vargo & Lusch, 2008). Therefore, both customers and solution providing PBFs have expanded their view to cover the whole system life cycle, including both the development and delivery of the system, and the subsequent operations or service phase in the life cycle (Davies, 2004). This implies that a PBF needs to engage the customer during both project and service phases to ensure that the value-in-use of the system is realized (Storbacka, 2011; Tuli et al., 2007; Vargo & Lusch, 2008). The realization of value-in-use for the customer typically requires the PBF to provide services during the service phase (Stremersch, Wuyts, & Frambach, 2001) and to integrate more closely to customer's operations (Windahl, Andersson, Berggren, & Nehler, 2004).

The emphasis on value co-creation and system life cycle perspective increases the importance of managing long-term customer relationships in PBFs. Research on project marketing has established that customer and other business relationships are crucial for PBFs, as they provide opportunities for future businesses (Cova & Holstius, 1993; Cova & Salle, 2008; Cova, Mazet, & Salle, 1996; Skaates, Tikkanen, & Lindblom, 2002; Tikkanen et al., 2007). The strategic objective of a PBF is thus to create, maintain and manage business relationships that enable or support the development of future demand for projects (Cova & Hoskins, 1997; Cova, Mazet, & Salle, 1994; Tikkanen et al., 2007).

However, the management of a PBF's customer relationships is significantly affected by three key characteristics of project marketing: discontinuity, uniqueness and complexity (Hadjikhani, 1996; Mandják & Veres, 1998; Skaates et al., 2002). In particular, discontinuity affects customer relationships (Hadjikhani et al., 2012), as project deliveries are typically followed by a potentially long sleeping phase in the relationship that lasts until the next project delivery (Cova et al., 2002; Hadjikhani, 1996; Mandják & Veres, 1998). Therefore, project marketing stresses the importance of active customer relationship management during this sleeping phase. Prior research has indicated, for example, the importance of marketing activities not directly related to any specific project (Cova et al., 1996; Skaates & Tikkanen, 2003), the different functions of customer relationships (Walter, Ritter, & Gemünden, 2001), the overall customer strategy (Helander & Möller, 2007), and the capabilities of the PBF (Möller & Törrönen, 2003). In particular, instead of entering into a sleeping mode after a project delivery, the provision of services after the project phase of the system life cycle enables PBFs to maintain and further develop customer relationships during the service phase (Artto et al., 2008). Long-term service contracts can thus help PBFs to overcome the adverse effects of discontinuity in project businesses (cf. Hadjikhani et al., 2012).

### 2.2. Integration of project and service businesses within a PBF

Given the increasing importance of services provided over longer periods of time, PBFs face the challenge of organizing the service business that is inherently very different from the traditional project business of delivering customer-tailored capital goods in unique projects (Bowen & Ford, 2002). Most authors suggest that, on the organizational unit level, PBFs should establish an independent business unit responsible for delivering services after the project delivery (Galbraith, 2002; Mathieu, 2001; Miller et al., 2002; Oliva & Kallenberg, 2003). For example, Gebauer, Edvardsson, Gustafsson, and Witell (2010) argue that a separate service business unit can manage service-related customer relationships and operations more effectively than if the product and service business units were governed as a single entity. This organizational arrangement is also supported by our observations about the industry practice: most contemporary PBFs operating in global markets tend to have distinctive business units for project and service businesses.

However, having separate project and service organizations has a potential negative impact on the management of customer relationships from the perspective of the entire firm's long-term business. If the project and service phases of the system life cycle are served by separate organizational units with independent profit and loss responsibilities, organizational boundaries can create conflicts of interest and hinder the knowledge flows as well as the emergence of collaboration and trust, leading to difficulties in managing customer relationships. Although organizational distinctiveness is important for the establishment of the independent service business unit, it thus also potentially creates a chasm between the project and service businesses, and thus it is necessary to have organizational mechanisms in place to ensure the integration of the two businesses (Gebauer et al., 2009).