EXPLORING THE ROLE OF CONSULTANCIES AS INNOVATION INTERMEDIARIES IN SERVICES

por

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Orientada por

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BIOGRAPHICAL NOTE

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This thesis was not an individual production, but essentially a co-production that counted on contributions of diverse natures and, hopefully, the result surpasses the sum of the parts.

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- To my parents, who taught me to appreciate the value of knowledge and the importance of never giving up;
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ABSTRACT

Innovation is critical to boost economic growth. For companies, innovation is a constant quest, which challenges routines and status quo. Innovation ought to be understood in a broad sense, including not only product and process innovation (the technological dimension) but also marketing and organizational innovation (the non-technological dimension).

In an open innovation setting, the opportunities to innovate are larger. Companies can look out of their boundaries and, through partnerships, find new solutions to their problems and needs. Innovation intermediaries are key players in innovation systems, linking the demand and the supply of ideas and knowledge and helping to improve the system connectedness. There is a significant literature on the role of intermediaries, yet, it mostly examines manufacturing contexts and technological innovation.

The objective of this doctoral research project is to understand how innovation intermediaries, more specifically consultancies, contribute to the service industry innovation. In this context, the thesis makes a significant contribution by presenting a new and broader perspective on the phenomenon of intermediation, which goes beyond the technological facet. Drawing on three essays, it provides insights on the role of a specific type of intermediary, the consultancy, in the service industry context. The first essay proposes a theoretical framework of the functions of intermediaries in services. The second and third essays, of empirical nature, provide insights on the nature of the collaboration between consultancies and service companies, through the lenses of the service providers (consultancies) and of the clients (service companies).

The research concludes that an intermediary may develop functions that go way beyond the brokering role, challenging the traditional notion and definition of an intermediary. On the essay 1, a new framework of the intermediary’s main functions is proposed, which includes non-technological innovation. Furthermore, using the multiple case study design, essays 2 and 3, respectively, offer a rich analysis of the intermediation phenomenon detailing the nature and specificities of that collaboration.
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CHAPTER 1 : INTRODUCTION

1.1. Introductory remarks

Sharing economy is increasingly creating new opportunities for individuals, businesses, and society. This collaborative economy boosts asset-sharing and more efficient use of resources, driven and changing the innovation landscape. The open innovation model amplifies opportunities for knowledge creation and management outside the company’s boundaries (Chesbrough, 2006; Tether, 2002). According to this model, ideas can come from external players in the innovation system and new sources of revenue outside the company’s current business are identified. In this setting, innovation intermediaries as innovation enablers gain importance, creating and reinforcing links in the innovation system, contributing to the diffusion, creation and (re)use of knowledge, and underpinning the innovation system efficiency (Lin and Wei, 2018; Parker and Hine, 2014; Lichtenthaler, 2013; Dalziel and Parjanen, 2012; Howells, 2006; Czarnitzki and Spielkamp, 2003; Muller and Zenker, 2001; Bessant and Rush, 1995).

The role of innovation intermediaries in the knowledge creation and transfer has been thoroughly analyzed taking a technological, manufacturing-based perspective (Knockaert et al., 2014; Lichtenthaler, 2013; Gassmann et al., 2011; Tran et al., 2011; Sieg et al., 2010; Hargadon and Sutton, 1997). Yet, there is much to understand about the importance and functions of innovation intermediaries in the service industry. Services dominate the world economies and their innovation processes rely strongly on non-technological innovation (Castro et al., 2011; Den Hertog et al., 2010; Evangelista and Vezzani, 2010; Gallouj and Savona, 2009; Miles, 2007; Tether, 2005; Sundbo, 1997). Although service innovation research is expanding, there are still a lot of challenges to be overcome, namely the contribution of external agents to the service production (Bryson et al., 2012; Mansury and Love, 2008; Drejer, 2004; Den Hertog, 2000). To address this literature gap, this research focuses on providing a framework for understanding the functions of innovation intermediaries in service industry as well as on providing insights on the engagement process of consultancies by service companies.
1.2. Theoretical background

In a global marketplace characterized by profound social, economic, and technological changes, innovation matters. According to Gopalakrishnan and Damanpour (1997), innovation facilitates the process of adaptation to a changing environment, fostering the economy, strengthening companies’ competitiveness, and boosting the standard of living and the quality of life. This discontinuous emergence of new combinations (innovations), which are economically more viable than the old way of doing things, in a “creative destructive process”, pushes economic development (Schumpeter, 1934).

Due to the increasing competitiveness of markets, companies are forced to innovate. In this setting, the development of cooperation activities with other players is critical to access complementary technological resources, which can contribute to faster development of innovations as well as to improved market access, economies of scale and scope, cost sharing and risk spreading (Faria et al., 2010).

Recent innovation literature has been emphasizing the role of innovation intermediaries as the innovation process is becoming more open and the levels of collaborations among organizations are increasing (Coombs et al., 2003; Howells, 1999). In an open model of innovation, innovation intermediaries perform a significant role by linking different parties, searching and processing ideas and information, and helping to design and operationalize new solutions (Hargadon and Sutton, 1997; Howells, 2006).

Innovation intermediaries are agents or brokers in any aspect of the innovation process between two or more parties (Howells, 2006). They can act as superstructures in the innovation systems (Nilsson and Sia-Ljungström, 2013; Lynn et al., 1996), helping to disseminate knowledge and information among actors, scanning and identifying future opportunities, and brokering and matchmaking between actors. They operate at information, access and funding level (Chesbrough, 2006), improving connectedness within the system and creating new possibilities and dynamism.

Innovation intermediaries’ activities can include helping to provide information about potential collaborators; brokering a transaction between two or more parties; acting as a mediator or go-between bodies or organizations that already collaborate; and helping
find advice, funding and support for the innovation outcomes of such collaborations (Howells, 2006).

The first role of intermediaries in relation to innovation was in the field of technology diffusion, and their key functions are mainly related with technology transfer (Howells, 2006). There is a significant literature on innovation intermediaries that mostly targets manufacturing industry and the intermediaries’ roles concerning technology (identification and transfer).

Traditionally, innovation studies have been focused on the manufacturing sector and therefore innovation was (and still is) mostly associated with new technologies. Yet, this approach to innovation is incomplete since non-technological innovation complements and supplements technological innovation (Pereira and Romero, 2013). Innovation is a multifaceted phenomenon, which targets not only technologies, but also business processes and routines, as well as internal organization, external relations and marketing. It can be defined as the adoption of an idea, behavior, system, policy, program, device, process, product or service that is new to the organization (Gopalakrishnan and Damanpour, 2000).

The OECD (2005) states that innovation can occur in any sector of the economy (primary, manufacturing and services), including government services. Focusing on the firm level, it presents the following definition of innovation “(...) is the implementation of a new or significantly improved product (good or service), or process, a new marketing method, or a new organizational method in business practices, workplace organization or external relations” (OECD, 2005, p. 46).

The service industry tends to innovate somewhat differently from manufacturing, even though there is no unique service pattern of innovation (Tether, 2005). Service sector innovation requires a more complex approach to innovation, combining technological and non-technological innovation strategies, as pure product and process oriented innovation strategies impact companies’ economic performance only in the manufacturing sector (Evangelista and Vezzani, 2010). Service innovation highlights “softer” aspects of innovation which do not tend to be so present amongst manufacturers, and are consequently neglected (Tether, 2005). Service innovation relies
strongly on cooperation practices with third parties, namely customers, competitors, and external knowledge providers.

To our best knowledge there are no studies addressing the role of innovation intermediaries in services. This issue is of the utmost importance: on one hand, the existing innovation intermediaries’ studies do not cover non-technological innovation; on the other hand, service industry (innovation) is too important to be overlooked. The analysis of service innovation can extend our existing knowledge regarding the topic of “innovation intermediaries” by the introduction of new variables such as non-technological innovation (organizational and marketing innovation), that were not considered in the previous literature.

1.3. Research gap

The contribution of innovation intermediaries has been mostly studied in manufacturing context, with a strong focus on technological innovation. This is not strange since “innovation, the ultimate source of all economic growth, is still largely associated with manufacturing, and the production of technologically advanced artefacts (...) almost all of our understanding of innovation and of innovation processes at the micro level has been derived from studies of manufacturing (...)” (Tether, 2005, p. 154).

Little is known about the contribution of innovation intermediaries in the service industry innovation. Yet, services are outstanding contributors to the world economies growth and dynamism, and service innovation can bring to the fore “softer” aspects of innovation which do not tend to be prominent amongst manufacturers (Tether, 2005). In this context, the analysis of the characteristics of service innovation can bring new insights to the study of innovation by pointing to features of innovation that have been largely ignored in studies taking a traditional, technology-focused manufacturing approach to innovation (Drejer, 2004).

To identify existing studies about the contribution of intermediaries to the service industry innovation, and to identify a literature gap, several searches were made in 2014 in top journals in ISI Current Contents (CCC) – Web of Science (period of publications ranging from 1998 to 2014).
Firstly, we identified the existing research on innovation intermediaries, using the search terms “innovation intermediaries” or “innovation intermediation”, and obtained 372 results. The number of publications has been increasing sustainably. If we extend the period of analysis from 2014 until 2017, we conclude that the number of publications in 2017 (90) doubled in comparison with 2014 (45), which is a clear signal of the importance of this research thematic.

![Figure 1 - Results by publication years obtained from the search in CCC – Web of Science (search terms “innovation intermediaries” or “innovation intermediation”)](image)

To narrow the results and identify the existing literature on the contribution of innovation intermediaries to service innovation, we used the search terms “innovation intermediaries” and “service innovation”, as well as “innovation intermediaries” and “service industry” and obtained, respectively, 70 and 22 results (see Appendix 1, Search 1 and 2). From the 70 publications focused on service innovation, only four were published in journals specialized in services; from the 22 publications related to service industry, only one was published in a service’s journal (this publication was also included in the first group of four publications). None of those four publications specifically analyzed the contribution of innovation intermediaries to service innovation. Those publications were solely focused on the role of intermediaries (namely KIBS – Knowledge Intensive Business Services) as service providers.

Since innovation intermediaries have been described in the literature in several ways, namely as brokers (innovation or knowledge brokers), third-parties, and bridges, and the
term “innovation intermediary” was only coined by Howells in 2006, we decided to broaden our search, introducing as new search terms “innovation brokers” and “knowledge brokers”. This option takes into account that the definition of an intermediary places its brokering role between two or more parties at its core.

Using the search terms “innovation brokers” and “service innovation” as well as “knowledge brokers” and “service innovation”, we got 36 and 25 results (Search 3 and 4), respectively (see Appendix 1). Only one of the publications was in a services’ journal, and did not analyze the role of intermediaries in the service industry. Table 1 synthetizes all search results.

Table 1 - Results from searches

<table>
<thead>
<tr>
<th>Search Term</th>
<th>Number of results</th>
</tr>
</thead>
<tbody>
<tr>
<td>“innovation intermediaries”</td>
<td>372</td>
</tr>
<tr>
<td>“innovation intermediaries” + “service innovation”</td>
<td>70</td>
</tr>
<tr>
<td>“innovation intermediaries” + “service industry”</td>
<td>22</td>
</tr>
<tr>
<td>“innovation brokers” + “service innovation”</td>
<td>36</td>
</tr>
<tr>
<td>“knowledge brokers” + “service innovation”</td>
<td>25</td>
</tr>
</tbody>
</table>

Due to the significance and interest of the theme of innovation intermediaries, as well as to the lack of specific studies related to the service industry, it is crucial to investigate the importance and the role that innovation intermediaries play in service innovation. Furthermore, it is also essential to develop and extend the existing theory on services innovation and innovation intermediaries in order to contribute to a synthesis approach to innovation.

1.4. Research problem and objectives

As it results from the previous section, there is a lack of research concerning the role of innovation intermediaries in the service industry. The existing research focuses, mostly, on the manufacturing industry and technological innovation. However, the service industry innovation is somewhat different from manufacturing innovation, thus the analysis of the role of intermediaries in services can bring new insights to the innovation literature, highlighting features that were not explored in the manufacturing
context. Therefore, the focus of this thesis is on the support of innovation intermediaries to service industry innovation processes, in order to counterbalance the current insufficient knowledge regarding this subject. Hence, the overarching research problem is “How do innovation intermediaries, more specifically consultancies, contribute to service industry innovation?”.

Due to a practical need (to offer broader and more efficient support to service companies’ innovation strategies) and the lack of research on innovation intermediaries in the service industry, it is important to understand how the collaboration process between intermediaries and service companies develops. Mansury and Love (2008) point out that there are evidences that involving external knowledge providers in the innovation process induces a positive impact of innovation on productivity. Tether and Tajjar (2008) highlight the need to a deeper examination regarding the contribution of knowledge providers in service innovation. Bryson et al. (2012) state that the focus on open innovation and collaboration strategies involving external partners within services will influence service research over the coming years. Hence, the overall objective of this thesis is to explore the role and importance of innovation intermediaries in the service industry. This thesis also examines the motivations for consultancies engagement as well as the main outputs of the engagement.

Due to the large diversity of innovation intermediaries and to the fact that service companies are more prone to engage consultancies than other specialist knowledge providers, the research specifically scrutinizes the role of consultancies in supporting the innovation processes of service industry.

Specifically, the research objectives of the thesis are:

1) Explore the importance of consultancies as innovation intermediaries in service industry;

2) Investigate the main roles and functions of innovation intermediaries, and more specifically of consultancies, in the innovation processes of service companies;

3) Examine the main motives and expectations of service companies when engaging consultancies;
4) Analyze the differences between service and manufacturing companies (perceived by consultancies);

5) Examine the collaboration processes between consultancies and service companies (through the lenses of providers and clients);

6) Analyze the main outputs of consultancies’ engagement.

1.5. Thesis structure

The thesis adopts the format of papers. However, in order to facilitate reading, before the presentation of the essays, the thesis includes a number of chapters aimed at offering a structured and comprehensive overview of the research. In this context, it is organized as follows. In addition to this chapter, there are 4 chapters accounting for the literature review, methodology, compiled essays, and conclusions and contributions of this thesis.

Chapter 2 presents a review of the relevant literature on innovation intermediaries and service innovation. It also includes a brief analysis of consultancies as privileged intermediaries of service industry. Chapter 3 is dedicated to methodological issues. It highlights the research design, data collection methods, and data analysis methods. Chapter 4 presents a summary of the compiled essays, and provides a synthesis of the essays, detailing the research problems, units of analysis, research designs, main findings, and main contributions. Chapter 5 presents an overall review of the thesis with the main contributions, managerial implications, limitations, and future research.

Following the five chapters, the three essays compiled are provided in their full versions. The essays are structured as independent but complementary papers, and each embraces its own section of research questions, literature review, methodology, results, and discussion.
CHAPTER 2 : THEORETICAL FRAMEWORK

2.1. Introduction

The theoretical foundations of this research lie in two main strands of the innovation literature, namely the innovation intermediaries and the service innovation literatures. The importance of these theoretical contributions is highlighted below. Firstly, it will be introduced the innovation intermediation literature, since this research aims to extend the existing and growing literature. The analysis of this theoretical background was critical to disclose the innovation literature gap. Secondly, the key concepts of service innovation will be synthetized to allow a better comprehension of the service’s landscape, and to conceptualize the contribution of innovation intermediaries to the service industry innovation.

2.2. Innovation intermediaries

Innovation intermediaries are fundamental players in innovation systems, which aim to enhance the innovative capacity of regions, industries and companies. They work to enable innovation by connecting the sources and users of knowledge and by providing other important services to their clients that do not require the intervention of a third party (Dalziel, 2010; Howells, 2006). They constitute a large, increasing and heterogeneous group of entities, whose importance is critical in open innovation systems.

2.2.1. The emergence of innovation intermediaries

Innovation is a continuous and dynamic process of tackling unstoppable change with something new, in a virtuous cycle, and can be broadly defined as the commercial application of new knowledge (Love et al., 2011). Relying on invention, innovation applies creative ideas to problems, developing new solutions in the marketplace, in a value-added process.
Innovation is a process that should be managed, and at this level several options are possible. A company can develop innovations in house (or alone or with external partners), or it can adopt innovations developed by other organizations (through a diffusion process). In a closed model of innovation, companies are totally responsible for managing their innovation process (from idea generation to product commercialization). By opposition, in an open model of innovation, companies look internally and externally, beyond their boundaries, for new ideas and can use internal and external paths to market (Chesbrough, 2006). The open innovation model involves intensive interaction and learning with other actors in the innovation system.

Companies increasingly are searching beyond their own boundaries for valuable knowledge and skills, to complement their own capabilities. According to Chesbrough (2006), there has been a paradigm shift on the way firms acquire and commercialize knowledge, from a closed to a more open innovation model. The new paradigm assumes that firms can and should use inflows and outflows of knowledge to accelerate internal innovation and expand the markets for external use of innovation. Although there is a discussion about whether open innovation really is a new paradigm or simply the repackaging of older concepts and findings, open innovation is in line with previous research which shows that knowledge relevant for innovation is spread among different players in the innovation system (Clausen et al., 2013).

Cooperation activities with other players is a privileged way to access technological resources, which can contribute to faster development of innovations, improved market access, economies of scale and scope, cost sharing and risk spreading (Faria et al., 2010). There are several possible external innovation partners, such as suppliers, clients or customers, competitors, private and public research institutes (including universities), consultancies, or other public-sector organizations.

In this context, to facilitate the access to external knowledge of other players, the innovation intermediaries become involved, providing information, access to other players and funding (Chesbrough, 2006). An innovation intermediary can be generally defined as an organization or body that acts as an agent or broker in any aspect of the innovation process between two or more parties. Its activities include helping to provide information about potential collaborators; brokering a transaction between two or more
parties; acting as a mediator or go-between of bodies or organizations that already collaborate; and helping find advice, funding and support for the innovation outcomes of such collaborations (Howells, 2006).

Howells (2006) points out the systemic value that innovation intermediaries may play in policy terms in an innovation system, improving connectedness within a system and creating new possibilities and dynamism. This author also notices that the growth in the number and range of these actors within the system is a proof of the benefits they create to their clients and to the innovation system overall. As Dalziel (2010, p. 2) points out “innovation intermediaries are too numerous, and sometimes too large and important, to be ignored”. Gassman et al. (2011) refer that intermediaries bridge the gap between internal and external know-how, reduce the time to market and the time to know-how, increasing the firm’s efficiency in product development and the efficiency of its external service providers.

2.2.2. Research fields

Research on innovation intermediaries goes back to 1990s and the first registered interest in this topic was in the field of technology diffusion, where intermediaries were considered to play a significant role in the information dissemination (Howells, 2006). Most literature analyzes the innovation intermediation problematic on manufacturing context, and a few of them address the agriculture industry. Furthermore, the existing studies are primarily focused on the role of innovation intermediaries and few of them have addressed performance (Lichtenthaler and Ernst, 2008).

Roxas et al. (2011) state that the interest in the topic has arose from several different research fields, namely: 1) Technology transfer and diffusion – investigates the organizations that have a linking role between the sources and users of innovative ideas; 2) Innovation management - concentrates on the intermediaries activities linking different parties and also helping in the knowledge storage and manipulation as well as in the conversion of ideas and knowledge being transferred; 3) Innovation systems – analyzes the role of institutions that operate in the areas of information and knowledge, compensating the weaknesses of innovation systems; 4) Social network analysis – focuses on the interaction between brokers themselves and on the broker/firm
interaction from a communication perspective, analyzing the degree of centrality and strength of the “tie” of the network; 5) University entrepreneurship – explores the role of universities in facilitating the diffusion of technologies.

There are overlaps between those main five groupings and the level of cross-referencing between studies is reduced (Roxas et al., 2011), which may have slowed down the pace of research (Howells, 2006).

2.2.3. Intermediaries roles

The role of intermediaries in innovation can be traced back to “middlemen” in the agricultural, wool and textile industries of the 16th, 17th and 18th century in Britain. These middlemen had commercial functions and also disseminated technical knowledge. More recently, since innovation became a more open process, in which firms can and should use internal and external ideas and internal and external paths to market, innovation intermediaries gained importance (Chesbrough 2003, 2006). In an open innovation model, the intermediaries, as specialist companies, provide information, access and funding to enable transactions to occur between parties (Chesbrough, 2006).

Howells (2006) reviewed the existing and diverse literature on innovation intermediation and, using a case-study approach on the UK reality, concluded that the functions of intermediaries have been evolving along the innovation value chain (upstream or downstream), as they have been shifting away from their traditional sectors, exploring new industries, technologies, and new geographical markets. He proposes a framework which considers ten intermediation functions: foresight and diagnostics; scanning and information processing; knowledge processing and combination/recombination; gate keeping and brokering; testing and validation; accreditation; validation and regulation; protecting the results; commercialization; evaluation of outcomes (Howells, 2006).

That proposal, widely accepted, places the broker role quite centrally, even though it considers that functions of an intermediary are very diverse and some of them involve no other interaction with other organizations. Howells (2006, p. 726) points out that “care is therefore needed in classifying and describing an organization solely as an
‘innovation intermediary’. In the same line of thought, Klerkx and Leeuwis (2009) state that the provision of innovation intermediation functions may be more or less central to the organization, and it may often not be their primary role. Winch and Courtney (2007) clarify that knowledge-intensive business service firms and research and technology development organizations act as intermediaries as a by-product of their principal activities, what distinguishes them from innovation brokers. Den Hertog (2000) differentiates the innovation intermediaries that have a broker role – innovation brokers – as their core function (facilitators of innovation) from those other intermediaries that also pursue traditional, non-third-party activities (sources of innovation or carriers of innovation).

More recently, additional functions (to Howells’ proposal) of an intermediary are proposed by other authors, but the focus remains on the liaison role of the intermediary in the technological context. Dalziel (2010) groups intermediary’s activities in inter-organizational networking activities, technology development and related activities, and other activities (complementary to the first two groups of activities). Agogué et al. (2013) analyze the role of the intermediary as an architect which designs pre-requisites and offers leadership in the process of joint exploration and creation of knowledge. Gassman et al. (2011) study the role of intermediary in cross-industry innovation processes, and identify three types of intermediary (the innovation broadener, the innovation leverager, and the innovation multiplier).

The analysis of the main roles of the intermediaries leads us to another discussion, the definition of an innovation intermediary. In the innovation literature, there is not a clear and consensual definition of what an innovation intermediary is. In his seminal work, Howells (2006, p. 721) proposes the following working definition: “An innovation intermediary can be generally defined as an organization or body that acts as an agent or broker in any aspect of the innovation process between two or more parties”. This intermediary definition has been widely accepted, and places the broker role of the intermediary quite centrally.

Alternatively, and more recently, Dalziel (2010) proposes a purpose-based definition (by opposition to Howell’s brokering-based definition), that describes the intermediaries as organizations (or groups within organizations) that work to enable innovation,
helping to reinforce the innovative capacity of companies, industries, regions and nations. This definition aims to mitigate the problems arisen from a brokering-based definition of an intermediary, namely related with the clear identification of this class of innovation agents. Nevertheless, this characterization also raises some issues; specifically, it only includes organizations whose primary purpose is to support the creation of public socio-economic benefits, excluding for-profit firms (such as Knowledge Intensive Business Services - KIBS).

2.2.4. Types of intermediaries
It is difficult to enumerate all types of intermediaries, because of the diversity of the functions offered and their evolution over time, and also due to the fact that this phenomenon can be specific at national/local level (Howells, 2006).

Some of the more highlighted intermediaries in the literature are the technology transfer offices (Kodama, 2008); technology transfer brokers (Roxas et al., 2011; Albors et al., 2005); innovation brokers (Winch and Courtney, 2007; Den Hertog, 2000) and consulting companies (Bessant and Rush, 2005). Also, there are references in the literature to innovation capitalists (Nambisan et al., 2012); incubators (Clausen and Rasmussen, 2011); living labs (Almirall and Wareham, 2011) and collective research centres (Spithoven and Knockaert, 2011). Chesbrough (2006) introduced the media-based innovation intermediaries, considered to have “exciting potential”, but little is known of the performance of “emerging form” of innovation intermediaries (Galbraith and McAdam, 2011). Some authors (Xiaoyuan and Yanning (2011); Inkinen and Suorsa (2010)) consider a much wider definition of intermediaries, including entities such as technology tendering and bidding agencies and all types of associations, employment agencies and trade promoters.

Among the intermediaries, it is important to make a special reference to the Knowledge Intensive Business Services (KIBS), that are private companies or organizations, relying heavily on professional knowledge i.e. knowledge or expertise related to a specific (technical) discipline or (technical) functional domain, and supplying intermediate products and services that are knowledge-based. They aim to drive companies’ innovation agendas, working on a consulting basis and offering specialized knowledge
and skills in areas such as design, architecture, engineering, ICT, finance, marketing and distribution, and R&D services. KIBS are fundamental partners of innovative SMEs, as their innovation capacities depend strongly on the access to external informational resources (Muller and Zenker, 2001).

KIBS are seen to act as facilitators (when supporting a client firm in its innovation process, but the innovation at hand is not created by this KIBS firm nor is it transferred from others firms by this KIBS to the client firm), carriers (when transferring existing innovations, created by other firms, to the client firm), sources (triggering and developing innovations in the client firm), and also as co-producers of innovation (working closely and interactively with the client firm, in a two-way learning process) of innovation (Muller and Doloreux, 2009; Winch and Courtney, 2007; Den Hertog et al., 2010; Miles et al., 1995; Bilderbeek and Den Hertog, 1998).

Consultancies are part of KIBS and are characterized by their extensive services and flexibility in modes of operation and interaction, which make them a privileged type of intermediary (Bessant and Rush, 1995). In an open innovation model, consultancies are considered to play an important role as a source of ideas since significant knowledge is produced in a science-base and spread to ‘end-user’ companies by private sector consultancies (Tether and Tajar, 2008). Consultancies are envisaged as alternative sources (to universities) of information and knowledge for innovation, offering applied knowledge, specialist skills and information (Tether, 2002).

Service firms (with the exception of technical service firms) are more likely than manufacturers to use specialist knowledge providers, and they are also more likely to involve consultancies than other knowledge providers, since consultancies are more easily reached (Tether and Tajar, 2008).

2.3. Service innovation

The service industry has a paramount importance in the world economy. Its approach to innovation is subtle and relies strongly on soft skills and non-technological innovation. Nevertheless, this approach is not unique to services as it can also be found amongst
manufacturers (Tether, 2005). The study of service innovation features can provide new insights to the innovation research (Drejer, 2004).

2.3.1. The importance of services

Services are considered to play a critical role in all economies. The world economies are increasingly dominated, in terms of employment and value added, by service activities. The service sector is the main contributor to growth and employment in the European Union, and is responsible for about two thirds of employment and value added (European Commission, 2016). According to UNCTAD, services play a key function in developing countries: “Services are becoming crucial in a country's development, including in achieving the Millennium Development Goals, such as poverty reduction and access to basic services, including education, water and health services” (UNCTAD, 2014, p. n/a).

Services and manufacturing industries are mutual dependents, as services are important to both manufacturing customers’ as well as suppliers (European Commission, 2016). Furthermore, the barriers between services and manufacturing are becoming blurred, due to the introduction of servitization models by manufacturing companies. Through servitization, the manufacturing industry is offering advanced services to capture marketing opportunities (Baines et al., 2017; Vandermerwe and Rada, 1998).

Service innovation has direct benefits on the service industry, by promoting its growth and productivity, as well as indirect benefits on other industries, by supporting its innovation and growth (Love and al. 2011). According to the European Commission “a resilient tertiary service sector, as well as an increased availability of services, may boost economic growth and enhance industrial performance. In an increasingly globalized world, services such as finance, insurance, transport, logistics and communications deliver key intermediate inputs and thereby provide crucial support to the rest of the economy” (Eurostat, 2018, p. n/a).

2.3.2. The study of innovation in services

Even though the world economy is increasingly dominated by services, our understanding of service innovation was mostly inspired by manufacturing studies
Traditionally, services were envisaged as users of others’ technologies, not real innovators. They were perceived as unproductive due to the inability of labor to substantiate itself in a physical output (materiality bias) and to contribute to the wealth accumulation. Gallouj and Savona (2009) highlight that the dominance of the materiality bias as well as issues related to the definition of service output have contributed to the mismeasurement of services’ performance (in terms of productivity and value added) and have contributed to the under-estimation of their innovative performance.

There is a debate on whether service innovation can be analyzed using the same concepts and tools as innovation in manufacturing (Drejer, 2004). Coombs and Miles (2000) distinguish between three different approaches to defining and studying innovation in services: (i) an assimilation approach, in which the analysis of services should be done using the same lenses used in manufacturing; (ii) a demarcation approach, which argues that service innovation is unique, requiring new theories and instruments; and (iii) a synthesis approach, which proposes an enlarged view of innovation, applicable to any tangible or intangible product.

As the boundaries between service and manufacturing are becoming unclear, and it is increasingly difficult to find “pure services or goods” and “pure goods”, it is necessary to design a common framework for studying these activities instead of maintaining the divide between the two. Besides, the studies of service innovation specificities can contribute to the development of the synthesis approach by highlighting features of innovation that have been ignored in manufacturing studies (Drejer, 2004).

### 2.3.3. Typologies of service innovation

Due to the different conceptualizations of service innovation, researchers have started to synthesize innovation in services into distinct frameworks in order to facilitate the analysis of innovations at the organizational level (Droege et al., 2009).

Tether (2005) points out that services are often processes, so it is difficult to know whether to describe the innovation as a “product innovation”, a “process innovation”, or both. In line with this, Droege and al. (2009) refer that most of the studies in the
service innovation, unlike in manufacturing, do not apply the classic product/process dichotomy.

In order to operationalize the integrative approach to innovation, Gallouj and Weinstein (1997) draw on the Lancasterian characteristic-based representation of product. In this proposal, a product (a good or a service) is represented by a set of vectors of characteristics and of competences that are linked. Innovation is defined as the changes (planned or not) affecting one or more elements of one or more vectors of characteristics or of competences. Innovation is not a result but a process, and there are six types of innovations (radical, incremental, improvement, recombination, formalization and ad hoc innovations). Gallouj and Savona (2009) point out that here are more recent attempts to operationalize the characteristics based approach.

Tether (2005) proposes that a complete conceptualization of innovation, considering three domains: the firm’s outputs (product and also market innovation); the internal organization of the firm (process innovation and other changes in the organization of firm activities); the external (changes in the sources of supply and in the firm’s relations with its suppliers, customers, competitors or universities).

Castro et al. (2011), in line with Tether (2005), state that integrating models, irrespective of the sector of the firm, should include the three basic types of innovation: technological, organizational and commercial. Nevertheless, manufacturing companies have a greater tendency to carry out technological innovations (product and process innovations), while service companies are more inclined to implement organizational and commercial innovations.

Den Hertog (2000), following the demarcation approach, proposes the analysis of innovation in four dimensions (new service concept, new client interface, new service delivery system and technological options dimension), identifying five basic service innovation patterns (supplier-dominated innovation, innovation in services, client-led innovation, innovation through services, paradigmatic innovation).
2.3.4. Service innovation features

Services tend to have an orientation to innovation that differs from that of manufacturers: manufacturers tend to place greater emphasis on “’hard’” strengths and sources of technology, whereas services emphasize “’soft’” advantages and attributes (Tether, 2005). This “soft side” of innovation (non-technological innovations, including organizational innovations and changes in firm strategies and marketing) is easily overlooked by traditional indicators such as R&D expenditures. The “continuous change” mode of innovation (by opposition to the “staircase innovation”) is more common in services than in manufacturing.

The literature enhances the importance of external partners in service innovation. There are several types of external partners acting as sources of innovation, namely suppliers, clients or customers, competitors, private and public research institutes (including universities), consultancies, as well as other public organizations. Tether (2005) refers that while manufacturers are more likely to innovate through using in-house R&D and collaborations with universities and research institutes, service firms rely more on customers, suppliers, and other partners. Leiponen (2005) concludes that external sourcing of knowledge (customers and competitors) positively affects the probability and extent of innovation, while in-house R&D intensity has no discernible effect.

Concerning the different partners’ importance in service industry innovation, Wagner (2013) points out that the customers, suppliers, and competitors are important sources of innovation for the improvement of B2B services, but the collaboration with universities and consultants does not affect innovation performance due to conflicts of interest and misalignments of incentives.

Love et al. (2013) state that linkages to alternative types of partner contribute to different stages of the innovation process: links to customers are of primary importance in knowledge gathering; links to commercial research organizations are important in the encoding (transforming) stage; links to professional associations in the exploitation stage.

Trigo and Vence (2012) suggest the creation of a cooperation-oriented typology for service innovation composed of three broad profiles: intensive in techno-scientific flows
of information (have a higher probability of cooperating with technology institutes, universities and suppliers), intensive in interactions with clients and a profile of low intensity in interactions (lonely innovators).

The literature highlights the importance of private sector consultancies in the dissemination of knowledge produced in the science-base. Wagner (2013), in a study focused on transportation and logistics, points out consultancies’ role in the development of innovation strategies, processes, and structures that are supportive of new service development. He also concludes that consultancies do not contribute to the development or improvement of a specific service, due to their lack of knowledge about markets and clients.

Tether and Tajar (2008) conclude that service firms (except for technical service firms) are more likely than manufacturers to use specialist knowledge providers (universities, public research institutes, private research organizations and consultancies), and they are more likely to involve consultancies than other specialists as consultancies are more easily reached. Furthermore, those specialist knowledge providers tend to complement rather than substitute for a firm’s own internal innovation activities and for other sources of information.

2.4. Final considerations

There is a growing literature focusing on innovation intermediation. Yet, the literature has been addressing this topic mostly from a manufacturing-based perspective. Innovation intermediaries are envisaged as brokers in the innovation process that link the users and the sources of ideas. Technology is a central asset on the process of intermediation. The support of intermediaries concerning the non-technological side of innovation has been overlooked, and there are no contributions either of theoretical or empirical nature in this area. Furthermore, from the large and disparate group of intermediaries, the literature emphasizes the importance of KIBS as innovation partners, especially in services’ setting.

The existing literature on service innovation highlights services innovation specificities, which are not unique to them but are more commonly found in services than in other
industries. Service companies favor non-technological innovation, and place a great emphasis on external partnerships, namely with customers, competitors and consultancies. Even though there is not a service innovation mode and a separate manufacturing innovation mode (Tether, 2005), the analysis of service innovation can strengthen and enlarge the theoretical framework of innovation as a whole.
CHAPTER 3 : METHODOLOGY

3.1. Introduction

This chapter introduces the methodological options, discussing the role of theory in the research and the utilization of the process of induction. It presents the research strategies used in the three Essays, data collection and data analysis methods and procedures. To conclude, the researcher presents its options to ensure the quality of the research process and the respective outputs.

3.2. Research philosophy and approach

“Methods are not simply neutral tools: they are linked to how social scientists envisage social reality and how it should be examined” (Bryman and Bell, 2015, p. 19). Every researcher follows a paradigm, i.e., a shared world view that represents the beliefs and values in a discipline and that guides how problems are solved (Schwandt, 2001). Each paradigm may be associated with specific methodologies: the positivism is usually associated with quantitative methodologies, and the interpretivism with qualitative methodologies.

This research aims to understand the importance and roles of innovation intermediaries in service industry. There is a growing literature on innovation intermediaries’ topic, nevertheless there is a knowledge gap concerning the role of these agents in the service industry innovation. Aiming to extend the existing knowledge on this thematic, the thesis overarching research question is “How do innovation intermediaries, more specifically consultancies, contribute to service industry innovation?”. As pointed out before, the research main objectives are: 1) Explore the importance of consultancies as innovation intermediaries in service industry; 2) Investigate the main roles and functions of consultancies in the innovation processes of service companies; 3) Examine the main motives and expectations of service companies when engaging consultancies; 4) Analyze the differences between service and manufacturing companies (perceived by consultancies); 5) Examine the collaboration processes between consultancies and
service companies (through the lenses of providers and clients); 6) Analyze the main outputs of consultancies’ engagement.

To fulfil these objectives and answer the overarching research problem, the investigation draws on the interpretivist paradigm. According to this, it is fundamental to understand the world from the point of view of the social actors, therefore, different interpretations of the world are possible (Bryman and Bell, 2015; Blaikie, 2009). In this setting, this research focuses on the conceptions and experiences of the actors (innovation intermediaries as services’ providers, and service companies as services’ clients) to comprehend the phenomenon of innovation intermediation in services.

This research relies on an inductive logic, focusing on learning from experience, moving from the observation of the reality towards abstract generalizations. Data is used to explore a phenomenon, identify themes and patterns and create a conceptual framework. An inductive approach starts with specific observations and measures of the world to detect patterns and regularities; identifies preliminary relationships and formulates some tentative hypotheses to explore along the research; and comes to an end by developing some general conclusions or even theory.

The adoption of an inductive approach in this research enables to generate a holistic understanding of a phenomenon that has not yet been explored. Using an inductive reasoning, the researcher moved from the specific to the general, and meanings were generated as a product of experience or observation.

3.3. Research design

Due to the nature of the overarching research question and the absence of literature addressing specifically this theme, it was implemented an exploratory research, drawing on qualitative research methodologies. Qualitative methodologies are commonly associated with words rather than numbers, and inductive approaches (Bryman and Bell, 2015).

In qualitative research concepts are central, yet, how they are developed and used is different from quantitative research (Bryman and Bell, 2015). Blumer (1954) argues that concepts are used to provide reference and guidance. In this investigation, the
existing literature and concepts concerning “innovation intermediaries” as well as “service innovation” were fundamental to lead, shape and identify the research boundaries, main problems, opportunities, and factors that may be of relevance to the research.

Even though quantitative studies dominate the research literature, qualitative studies are starting to be recognized as significant sources of knowledge. Qualitative methods allow the researcher to describe a phenomenon while interpreting and attempting to comprehend it. They use words and descriptive procedures, rather than numbers, to explore and generate understanding of the phenomenon being studied. Gerdes and Conn (2001) suggest that qualitative methods allow observing at the “whole rather than the parts”. They aim to comprehend the meaning individuals or groups assign to a social problem, generating holistic understandings of rich, contextual, and generally unstructured, non-numeric data (Mason, 2002).

The nature of the investigation, exploratory but also descriptive, and the research question, influenced the research strategy. It was selected the research strategy of case study, since its focus on ‘how’ and ‘why’ questions (Myers, 2009) makes it appropriate for descriptive and exploratory enquiries (Mouton, 2001). A case study is an empirical inquiry that investigates a contemporary phenomenon within its real-life context, especially when the boundaries between phenomenon and context are not clearly evident (Yin, 1981). It concentrates on describing processes, individual or group behavior in its total setting, and/or the sequence of events in which the behavior occurs (Stake, 2005). It allows in-depth understanding of the participants’ feelings and behaviors, relying on the collection and analysis of a great diversity of data.

The case study support in theory building is considered particularly adequate in areas where existing theoretical and conceptual frameworks are inadequate (Chetty, 1996). The insights arising from case-based theory building research can be used as hypotheses or propositions in further research. Case study research therefore plays an important role in advancing a field’s body of knowledge (Merriam, 2009).

Nevertheless, the applicability of case study findings is narrow, since they use a small sample which does not allow generalization to a larger population. The findings are
perceived as context-specific, difficult to replicate, and also as subjective (rely too much on the researcher’s view) and lacking transparency (Bryman and Bell, 2015).

Multiple cases were selected since it was considered important to understand the similarities and differences between the cases. Furthermore, multiple case studies ensure that the findings generated would be stronger and more reliable, when compared to single cases (Baxter and Jack, 2008). However, multiple case studies are more expensive and time-consuming than single cases (Baxter and Jack, 2008).

The starting point of the research was the review of the existing literature, followed by the design of a theoretical framework, which synthetizes the functions of intermediaries in the service industry. After that, data collection was done in an iterative process that allowed revisiting and validating the conceptual framework and, simultaneously, a better comprehension and description of the phenomenon. The research process is disclosed in three complementary research studies, which were developed between January 2014 and February 2018 (see Figure 2).

The first study, of a conceptual nature, proposes a framework for examining the functions of innovation intermediaries within services. To design the tool, firstly, it was made a synthesis of the existing literature concerning “innovation intermediaries” and “service innovation”. Drawing on these findings, a conceptual tool was designed, which considers 12 functions of an innovation intermediary in services.

To validate the proposed framework and provide insights into the nature of the collaboration between service industry and innovation intermediaries, it was developed a second study. This second study, of empirical nature, examines the collaboration
process between a specific type of innovation intermediary, the consultancies, and service companies.

Due to the considerable number and a wide diversity of organizations conducting intermediation activities, it became imperative to select a specific type of innovation intermediary to be examined along the investigation. In this heterogeneous group of providers, service companies favor the collaboration with consultancies, due the ease of access, flexibility and diversity of services (Tether and Tajar, 2008; Bessant and Rush, 1995).

The second study adopted a multiple case study approach (Yin, 2003, Eisenhardt, 1989), which allowed a more profound understanding of consultancies’ involvement in the innovation processes of their clients, from the consultancies point of view. Data triangulation was done, using multiple data sources such as in-depth interviews, web pages, journals and magazines, and company’s data.

The third study, also empirical in nature, examines the collaboration process between service companies and consultancies, from the perspective of service companies (clients). This study complements and triangulates the findings of the other two studies. The multiple-case approach allowed obtaining richer information to characterize the engagement at various levels (clients’ motivations and expectations, types of projects, models of engagements, consultancies roles and functions, results). Main sources of data were the interviews with companies’ representatives. Other data sources were used, such as the internet and other media, companies’ reports, and direct information.

3.4. Data collection and analysis procedures

3.4.1. Conceptual study

Data for defining the theoretical framework, which encompasses the functions of innovations intermediaries in services, was collected through secondary sources, namely leading scientific journals. It was done an extensive online search through the Web of Science – Current Contents Connect, and some of the journals analyzed were: Research Policy, Technovation, International Journal of Innovation Management, R&D

Firstly, it was done a compilation of articles addressing the roles of innovation intermediaries to elaborate a list of the possible functions/roles of intermediaries. Secondly, the service innovation literature was analyzed to identify and understand service innovation specificities as well as to identify and comprehend services and goods innovation commonalities. After that, we focused our efforts in understanding if and how the service features could influence the collaboration with innovation intermediaries. Finally, drawing on these two strands of literature, it was identified the possible functions of intermediaries in service industry.

3.4.2. Empirical studies

Both empirical studies (essay 2 and essay 3) used a multiple-case study design.

For the second essay, the selection of the consultancies followed a specific procedure. There is a large number of consultancy companies operating in Portugal, but only a small number of those companies define as its main organizational purpose enabling innovation. With the support of Portuguese innovation experts, 20 companies were shortlisted. From this group, four companies were selected based on their relevance (type of services, type of clients, size) and accessibility. All offered a significant diversity of services to clients belonging to both manufacturing and service industries, and promoted themselves as “innovation enablers”.

Empirical data sources were collected from in-depth interviews with CEOs or innovation department managers, as they were responsible for defining the mission and strategy of the company/department, and had a broader perspective over company activities. Consultancies’ activities were examined and compared within services and manufacturing contexts. The interviews followed semi-structured, open-ended guidelines and were oriented around three main blocks: business model (consultancies’
services, types of clients, main resources, and partnerships), collaboration process (main roles and functions of consultancies) and value added (immediate impacts on clients and challenges faced). Other sources of evidence were explored such as internal documents provided by the consultancies, information from websites and media (press and social media) as well as direct observation.

Data analysis followed a content analysis approach, with initial coding developed based on the components investigated in the interview, allowing, as well, the identification of new categories (Yin, 2003). After the initial coding all categories were double-checked for consistency and categories have been reviewed. Firstly, cases were examined separately and then compared.

For the third essay, four case studies of service companies were developed, resulting on detailed descriptions of the innovation intermediation in services phenomenon using constructs to order the data and relate to earlier literature. It was selected organizations with prior and considerable experience in consulting engagement, belonging to private and public spheres, and operating in different and important service industries, to include a diverse set of organizational contexts.

Previously to data collection, it was done a preliminary briefing with a key informant nominated by each company to understand companies’ models of engagement with consultants. This allowed concluding that normally each company has different projects with consultants, and each project is lead and managed by a specific department or division. Consequently, head of departments or divisions were purposefully selected based on their involvement in the companies’ projects with consultancies and due to their broader perspective over companies’ projects and challenges.

Main data sources are interviews with heads of departments or divisions of different companies and top management (executive directors and vice-presidents). Top management, due to their transversal knowledge regarding the companies’ usage of consultancies, provided rich testimonies and facilitated data triangulation. Interviews were oriented around three main blocks: motivations & expectations, collaboration process (projects characteristics such as duration, stages, teams involved from both parties, main roles and functions provided by consultancies) and results (consultancies’
contributions and difficulties felts along the process). All interviews were recorded and transcribed verbatim. Other sources of evidence were also explored such as internal documents provided by companies, information from websites and media (press and social media) as well as direct observation.

Data analysis was performed using content analysis. The categories and sub-categories were developed deductively from the research questions and literature review and new categories emerged inductively from the data analysis. The four cases were analyzed separately and then compared, looking for similarities and differences.

### 3.5. Research quality

The criteria used to evaluate the research findings within the interpretive paradigm are different from those applied within the positivist paradigm (Lincoln and Guba, 1985). Since findings cannot be generalized to the wider population, the value of an interpretive study is determined by the extent to which it fits and works with the perspectives of participants (Glaser and Strauss, 1967). In positivist research the standards for judging research are reliability, validity, and generalizability: in an interpretivist research the criteria are somewhat different, and the criteria of dependability (reliability), credibility (validity), confirmability (objectivity), and transferability (generalizability) are used to establish the trustworthiness of qualitative research (Bloomberg and Volpe, 2008).

Dependability is about establishing that the research findings are consistent and repeatable. At this level, the researcher presence and presentation of its research in innovation conferences, the discussions held with other researchers and business managers of service companies, and, also, the essays process of submission (to lead to their subsequent publication) in academic journals, were critical.

Credibility refers to how the research findings are aligned with reality to demonstrate the truth of the research findings. In this research, credibility standard is ensured by data triangulation within studies (various sources of data) and between studies (different perspectives from consultancies and service clients) as well as by member checking
(findings, interpretations, and conclusions were shared with the participants to increase the research quality).

Confirmability focuses on establishing that the research findings are based on the participants’ narratives rather than potential researcher biases. In this research, the process of data collection, data analysis, and interpretation of the data was carefully described and detailed.

Finally, transferability is about proving that the research findings could be applicable to other contexts, situations, times, and populations. It is about establishing that findings flow from the data rather than from the bias and subjectivity of the researcher. Following Lincoln and Guba’s (1985) recommendation of providing thick description of the phenomenon, in this investigation, it is provided a detailed account of field experiences, research context and assumptions.

3.6. Final considerations

The nature of the research problem and overarching question, aiming to generate insights about an unknown phenomenon, was determinant on the choice of qualitative methodologies. Even though the investigation relies on small samples, the case study approach allowed the collection of rich data to ensure a holistic understanding of the contribution of innovation intermediaries, namely consultancies, to service industry innovation.
CHAPTER 4 : SUMMARY OF ESSAYS

4.1. Essays compilation

This research is composed by three essays, which were presented in conferences and/or published in scientific journals, as it follows:

ESSAY 1


- Presentation of the paper “The Importance of Innovation Intermediaries in Service Industry” in the Conference of ICIEMC 2014 (2-3 May, Aveiro, Portugal).
- Presentation of the paper “Innovation in Services - Exploring the Role of Innovations Intermediaries” in the Conference of ISPIM 2014 (8-11 June, Dublin, Ireland).
- Publication of the paper “Innovation in Services: Exploring the Role of Innovation Intermediaries” in the Revista Portuguesa de Marketing.

ESSAY 2


- Presentation of the paper “Managing Innovation in Service Industry: The Role of Consultants”, in the Conference of ISPIM 2016 (19-22 June, Porto, Portugal).
ESSAY 3

Pinto, M.; Saur-Amaral, Irina; Melo de Brito, C. (2018), “Boosting Service Innovation - The Role of Consultancies” (under review)

- Submission (accepted) of the paper “Boosting Service Innovation - The Role of Consultancies” to the Conference of ISPIM 2018 (17-20 June 2018, Stockholm, Sweden).
- Submission of the paper to the Journal of Innovation Management on June, 21, 2018.

Essay 1 presents a framework to analyze the functions of innovation intermediaries in the service industry. Essay 2 validates the framework presented in essay 1 and analyzes consultancies’ roles as innovations intermediaries in the service industry, discussing the service and manufacturing specificities regarding the innovation process. This analysis is done through the lens of consultancies. Essay 3 also validates the tool presented in essay 1 and characterizes the collaboration process between consultancies and service companies, focusing on the perspective of service companies. Using the point of view of service companies, it allows triangulation of essay 2 findings.

4.2. Essays synthesis

In this section, it is made a synthesis of the three essays, taking in account the five key dimensions of a research: research questions, unit of analysis, research design, main findings, and contributions. The dimensions are aligned with the research objectives, which target to understand the importance and role of consultancies as innovation intermediaries in service industry in a two-fold perspective (from the lens of the service providers and of the clients). Each dimension is examined by essay, providing a more holistic view of the research and a better understanding of the research aims, design, structure, and outputs.

Table 2 synthetizes the five research dimensions.
Table 2 - Synthesis of the essays, by key research dimensions

<table>
<thead>
<tr>
<th>Research questions</th>
<th>Essay 1</th>
<th>Essay 2</th>
<th>Essay 3</th>
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<tbody>
<tr>
<td>1) How innovation intermediaries can meet the innovation needs of service companies?</td>
<td>1) To what extent consultancies perceive [innovation in] service (companies) as different from [innovation in] manufacturing (companies)? 2) How do consultancies support the innovation processes of the service industry? 3) What is the added-value of consultancies to the innovation processes of service industry?</td>
<td>1) Why do service companies engage consultancies? 2) How do consultancies support the innovation processes of the service industry? 3) How do innovation intermediaries add value to the innovation process of service industry?</td>
<td></td>
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<table>
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<tr>
<th>Unit of analysis</th>
<th>Innovation intermediaries</th>
<th>Consultancies</th>
<th>Service companies</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research design</td>
<td>Systematic literature review</td>
<td>Multiple-case study</td>
<td>Multiple-case study</td>
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</table>

<p>| Main findings | Consultancies act mostly at information level (less in providing access to other players and funding). Partnerships and staff skills are critical to ensure consultancies’ service quality. Consultancies associate innovation with new technologies (technological facet), and their support in technological areas is considered strategic. | Service companies engage consultancies as vital innovation partners due to their lack of resources and expertise. Service companies engage consultancies working in different areas, and not all projects target innovation. | The technological intensity of the company’s industry can affect the project’s nature (more or less technological). |</p>
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<tr>
<th>Essay 1</th>
<th>Essay 2</th>
<th>Essay 3</th>
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<tbody>
<tr>
<td>Manufacturing is a traditional and extremely important client.</td>
<td>Main motivations for engagement are the search for advice and information.</td>
<td>Other key motivations are the search for methodology and for an external voice.</td>
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<tr>
<td>Even though consultancies claim that manufacturing and service clients are similar, they perceive them as distinct.</td>
<td>Service companies select their providers based on criteria such as knowledge, creativity, problem-solving skills.</td>
<td>Consultancies are envisaged as co-producers, and less as brokers (one to one relations).</td>
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<tr>
<td>Consultancies do not adjust their offerings and organizational structure to meet the needs of service clients.</td>
<td>Consultancies consider that their most important functions are diagnostic and training; their brokering function is considered critical only in technological projects.</td>
<td>Consultancies' most valuable contribution is to prepare companies to innovate (the project implementation is usually done by the company).</td>
</tr>
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</table>

Innovation intermediaries in services can perform 12 functions to support service innovation. Most part of consultancies perceives themselves as innovation facilitators and carriers. Consultancies most valued functions are diagnostic, innovation conceptualization, and training. The access to other players is not perceived as vital.

Most part of the consultancies does not offer support in the conceptualization of new offerings, since they claim not having the necessary expertise to do it.
<table>
<thead>
<tr>
<th>Essay 1</th>
<th>Essay 2</th>
<th>Essay 3</th>
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<tbody>
<tr>
<td>Most part of the consultancies offers support in non-technological</td>
<td>Service innovation, comparing to manufacturing innovation, can be</td>
<td>Service companies favor collaboration projects where deliverables are</td>
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<td>areas (internationalization and quality) but they overlook its</td>
<td>more challenging to deal with (more variables to manage).</td>
<td>clearly identified.</td>
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<td>importance.</td>
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<tr>
<td>Service innovation, comparing to manufacturing innovation, can be</td>
<td>Technological innovation in services is mostly related with information</td>
<td>Radical innovations are not a frequent output of the engagement and are</td>
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<td>more challenging to deal with (more variables to manage).</td>
<td>technologies.</td>
<td>more common associated with technological projects.</td>
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<td>The quality of the engagement demands high interactions between parties</td>
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<td>The quality of the engagement demands high interactions between parties</td>
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<td>and both sides should be well equipped to engage.</td>
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<td>and both sides should be well equipped to engage.</td>
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CHAPTER 5: CONCLUSIONS

5.1. Research problem

This thesis aims to increase the theoretical comprehension of the importance and role of consultancies as innovation intermediaries in the service industry. There is a growing literature investigating the contributions of innovation intermediaries to the innovation processes of manufacturing companies, with a strong focus on technological innovation. However, the contribution of intermediaries to the innovation of service companies has been overlooked. Yet, services are critical in world economies and their service innovation processes can be somewhat different from the ones that are found in manufacturing industry. In this context, this investigation fulfils a research gap, and addresses a practical need, creating new knowledge in an under-explored field.

The overarching research problem of this study was “How do innovation intermediaries, more specifically consultancies, contribute to service industry innovation?” The answer to this question is that intermediaries may support the innovation processes of service companies, acting at technological and non-technological levels. Furthermore, the brokering role, key in manufacturing context, loses importance in service industry, where intermediaries are envisaged as co-producers of innovation alongside with the company, with the critical role of preparing companies to innovate.

5.2. Main conclusions

The understanding of the complex phenomenon of the innovation intermediation in the service industry gave rise to additional research questions which, along with the before mentioned questions, help to determine the direction and scope of the investigation and define its boundaries and limits. Each essay has its own set of research questions that frame a specific enquiry and guide the data collection and discussion, leading to a set of conclusions. Below are synthetized the main conclusions that answer the research questions, by essay.
ESSAY 1

In this first essay, of conceptual nature, the main research question is:

1) How innovation intermediaries can meet the innovation needs of service companies (or what can be the main functions of innovation intermediaries in the service industry?)

The essay aims to understand what can be the main functions of innovation intermediaries in the service industry. The answer to the research question is that innovation intermediaries may offer 12 functions, namely: Analysis and definition of innovation needs; Identification of user needs and major trends; Signalization of technological options; Conceptualization of new service offerings; Conceptualization of new organizational methods; Conceptualization of new marketing strategies; Identification of potential partners; Testing and scaling; Selection and training of specialized workforce; Protection of innovation assets; Accreditation/certification; Investment appraisal.

ESSAY 2

In this essay, there are three research questions:

1) To what extent consultancies perceive [innovation in] service (companies) as different from [innovation in] manufacturing (companies)?

2) How do consultancies support the innovation processes of the service industry?

3) What is the added-value of consultancies to the innovation processes of the service industry?

The answer to the first question is that consultancies claim that service and manufacturing companies are quite similar clients, hence, they do not segment offerings and customize structures, by industry. But, in a deeper analysis, consultancies point out the existence of several differences between these two industries (in terms of dimension, resources, innovation needs, innovation strategies, and interlocutors). Consultancies
favor relationships with manufacturing companies (traditional client, more “professional”, and more interesting in terms of revenues).

The answer to the second question is that consultancies support service innovation mostly acting at diagnostic level, through a comprehensive analysis of the company, the technological options and consumer trends. The brokering function is considered critical only when technology is involved. The function associated with conceptualization of offerings is not provided by consultancies, since they associate innovation with new technologies (and at this level, they can act just like brokers, due to the absence of specialized knowledge). The support in the definition of new organizational and marketing strategies is provided by all the consultancies but is not understood as strategic. Consultancies envisage themselves as innovation facilitators or carriers, not co-producers of innovation, since they consider that they mainly support the transmission of specialized knowledge. But, in reality their role is more complex, as they act alongside their clients, in a symbiotic relationship, to design innovations.

Concerning the third question, consultancies associate their value-added mainly with the provision of information, advice, and training. In this context, specialized knowledge (in specific industries or topics) as well as a networking with others critical players in the innovation system is perceived as crucial. Nevertheless, the provision of access to other players in the system is envisaged as critical only when technology is at stake.

Consultancies stress the importance of their support in technological areas, especially to manufacturing clients, whose innovations processes are normally more structured. Their support in non-technological areas is perceived as secondary.

ESSAY 3

In this essay, the research questions are:

1) Why do service companies engage consultancies (or what are consultancies main motivations & expectations when engaging consultancies)?
2) How do consultancies support the innovation processes of the service industry (types of project, models of engagement, roles & functions of consultancies)?

3) How do innovation intermediaries add value to the innovation process of the service industry (main contributions; outputs; challenges)?

The first question aims to clarify what are the service companies’ main motivations and expectations when engaging consultancies. Basically, companies are looking for information and advice. But, these motivations evolve along the lifetime of the companies and, in latter stages, they also are in pursuit of methodology (to apply directly to their innovation projects without needing the support of an external party) and credibility provided by a third reputable entity. They look for providers that possess the adequate level of knowledge, experience, reputation, creativity, and diagnostic, project management and problem-solving skills.

Concerning the second question, service companies engage a wide variety of consultancies in different end areas (strategy, technology, marketing, economy,…), even though not all collaborations target innovation. Projects can be strategic or operational, and, usually, the engagement is one-to-one (nevertheless, other entities can be involved). The industry of the company can affect the nature of the project, and companies belonging to insurance and telecommunications industries reported the consultancy engagement to be of the utmost importance in highly innovative technological projects. Consultancies are perceived as co-producers of the solutions, and its brokering function is not considered critical. Consultancies’ main functions are related with diagnosis and market opportunities detection, and, simultaneously, innovation conceptualization. Training is also considered an important function. Service companies also mentioned the consultancies’ support in the evaluation of innovation outcomes.

The answer to third question is that consultancies are envisaged as a fundamental partner when preparing the company for innovation, even though, in some situations, they can be a valuable support in implementing innovations. When evaluating results, service companies find it important to associate the consultancies' work with specific deliverables, due to the nature of the provision. Service companies highlighted that
consultancies helped them to improve the overall quality of their offerings and that, in some cases, they co-produced radical innovations with them, namely in technological projects. The quality of the engagement is perceived as being a result of significant interactions between the client and the provider, and service companies should be well equipped to engage as well as consultancies (in this case, market and industry knowledge). In this setting, even though long-term relationships are favored; yet, they can be a threat to innovation, since they can result in complacency.

5.3. Main contributions

This thesis explores and describes the contribution of innovation intermediaries, and more specifically of consultancies, in supporting the innovation processes of service companies. Hence, it provides a number of theoretical contributions, which are now discussed next.

- **Holistic framework for the service industry**

At the core of the research, it is defined a framework to analyze the functions of innovation intermediaries in service industry (essay 1), which includes 12 functions, namely: Analysis and definition of innovation needs; Identification of user needs and major trends; Signalization of technological options; Conceptualization of new service offerings; Conceptualization of new organizational methods; Conceptualization of new marketing strategies; Identification of potential partners; Testing and scaling; Selection and training of specialized workforce; Protection of innovation assets; Accreditation/certification; Investment appraisal. In the second and third essays, using a multiple case approach, the framework is empirically validated and a new function is suggested (Evaluation of innovation outcomes).

This is the first framework designed especially for service industry. It draws on existing frameworks, revising and complementing them. The analysis of innovation intermediation through the lens of services allows a much more
holistic and richer perspective of the intermediaries’ contribution to business innovation. The framework includes the non-technological side of innovation (marketing and organizational innovation), which has been overlooked by the innovation intermediaries’ literature, providing a broader view of the innovation concept. Furthermore, it enlarges the functions of innovation intermediaries and underpins its importance as vital agents in contemporaneous innovation systems.

- **Importance of consultancies as key innovation enablers**

The research highlights the critical role of consultancies in service industry innovation (essays 1, 2 and 3). Consultancies are perceived as a key partner in the innovation processes of service companies (more important that the university and private or public research organizations) and service companies pointed out that they mostly engage with consultancies (and not other types of intermediaries) to cope with their innovation challenges (essay 3).

Service companies rely on consultancies’ support to implement a wide range of projects, in different areas of expertise. Their support is found critical in preparing the companies for innovation, acting in the identification of new opportunities and in staff training. Consultancies are considered efficient and reliable partners, with specialized knowledge, resulting from their staff expertise and partnerships established with external entities (essay 2). They have an external perspective of the company’s situation and help companies to rethink their problems, providing methodologies to manage the innovation quest (essays 2 and 3).

- **Consultancies leading role as co-producers**

Another key contribution focuses on providing understanding on consultancies’ leading role as co-producers of innovation. Literature has been emphasising the bridging role of intermediaries; yet, in service industry, the brokering role of intermediaries loses prominence (essays 1, 2 and 3). Since relationships established between consultancies and service companies are mainly one-to-one,
not involving third parties, consultancies are mostly perceived as co-producers partners supporting the development of innovations alongside with service companies. In this co-production process, consultancies and service companies learn and innovate, side-by-side, in a symbiotic collaboration (essay 3).

Consultancies do not envisage themselves as co-producers of innovation, since their understanding of innovation is mostly associated new technologies. Their traditional clients are manufacturing industries and they consider not having the technical expertise to conceptualize technological innovations. They overlook the non-technological side of innovation, considering it as secondary. Using the same lens for service clients, they not envisaged themselves as innovation co-producers in the case of services’ non-technological innovation. But, in reality, when they design new marketing and organizational innovations, which usually does not require the intervention of third parties, they work in a co-production process with their clients (essay 2).

Furthermore, consultancies are not envisaged as critical partners in getting access to other players in the innovation system, since service companies consider that innovation implementation should be directly done by the companies. Only in projects of technical nature, the brokering role of intermediaries gains some prominence (essay 3).

- New concept of “innovation intermediary”

Moreover, in this research the concept of “innovation intermediary” is reviewed and questioned (essays 1 and 2). An intermediary is usually understood as a middleman, working between two or more parties to support the innovation processes of companies. The brokering-based definition minimizes considerably the potential of this agent, especially when it comes to non-technological innovation. Consultancies, as innovation intermediaries, are often co-producers of innovation, working alongside with their clients (essay 3). In this sense, innovation intermediaries ought to be identified by their main purpose, to enable
innovation (technological and non-technological), and not by their brokering role (essay 2).

In the existing literature, there is not a unique and generalized definition of what an intermediary is and none of the prevailing definitions views innovation accordingly to the original Schumpeterian notion. Thus, I suggest as a tentative definition of an intermediary, which unleashes the full potential of these players: “An agent which works to enable innovation, technological and/or non-technological, acting as a broker and/or a co-producer of innovation alongside its clients”.

**Collaboration between service companies and consultancies**

The thesis offers important insights on the collaboration process between service companies and consultancies, from the perspectives of consultancies as the provider (essay 2) and service companies as clients (essay 3). These different perspectives allow triangulation of findings and richer understandings. On one side, it specifically analyzes how consultancies envisage the client “services” by comparing it with the client “manufacturing”; what are the services provided by consultancies to the service industry; and what are the impacts and challenges when working with this client (essay 2). On the other side, it examines the motivations and expectations of service companies when engaging consultancies; the cooperation underlying processes and mechanisms; as well as the results, opportunities and threats (essay 3).

Consultancies claim that service and manufacturing companies are similar and, as a result of this, they do not adjust their organizational structures and offerings to this type of client (one size fits all). But, in reality, they perceived them as somewhat different in terms of needs, resources, innovation’ strategies and structures (essay 2).

Consultancies offer specialized information and advice as well as access to other innovation players (in the case of technological innovation). Their training
services are considered of the utmost importance. They rely on strategic partnerships with other knowledge centers and their staff skills to fulfil their mission (essay 2).

The analysis of service companies’ motivations to engage with consultancies revealed that the search for methodology to manage innovation processes is a critical motivation at later stages of the relationship, where companies are looking for the “tool box” to help them solve their problems (and not anymore for the solution itself). Also, consultancies are perceived as relevant partners since they are external independent voices that provide assurance in decision making and credibility. Service companies look for suppliers that have technical but also market knowledge, which are creative and problem solvers. The international dimension of consultancies is also valued.

Service companies run different types of projects with consultancies in different areas of expertise, and not all projects target innovation. Most part of the collaboration projects is dyadic, involving the company and the consultancy. Nevertheless, sometimes third parties are involved. Some technological projects are of strategic nature, affecting radically the company’s organization and business. Long-term relationships with knowledge suppliers are favored, even though they can result in complacency.

- **New perspective on the contribution of innovation intermediaries**

Hence, and as a result, my research brings a new and revolutionary perspective of the innovation intermediaries’ contribution, drawing on a more enlarged concept of innovation as shown in Figure 3. This new perspective is a result of re-examining the reality, the innovation intermediation thematic, from a different standing point, the one of the service industry. Reality is in some way an illusion, which demands an empathetic understanding, through the eyes of the leading
This new perspective draws on the evidence that consultancies’ services are mostly focused on the support of manufacturing clients’ needs and their understanding of innovation is mostly concentrated on the technological side (essay 2). In this new perspective, motivations to engage consultancies’ services are reviewed and it is emphasized the importance of externally acquiring the
methodologies to run the company’s innovation projects as well as the significance of “external voices” to provide assurance in decision making and to inspire market trust. It is stressed that consultancies can be more than implementers of innovations and they play a more strategic role in the innovation preparation.

Overall, I argue that my investigation contributes to a holistic approach of innovation, by highlighting innovation features that have been overlooked by the traditional manufacturing perspective, and addressing a literature gap in a research field of the utmost importance.

Finally, by examining the engagements established by the consultancies and the service companies that participated in this study, the investigation also contributes to improve management practice. Both service organizations and consultancies can benefit from the study findings and conclusions to unleash the full potential of potential future collaborations. Consultancies can reformulate their value propositions, processes and procedures, and thus provide more efficient solutions to their clients. Service organizations can better prepare to the challenges of the innovation collaboration, by better understanding the role and importance of consultancies in service innovation processes and by learning from other peers’ experiences.

5.4. Limitations and suggestions for future research directions

The research has an exploratory nature, drawing on qualitative methodologies to study a topic that has been under-explored. The use of qualitative methodologies does not allow results’ statistical generalization.

The analysis focuses on the support of consultancies, which are key partners of service companies. Nevertheless, there is a large list of possible innovation intermediaries that was not possible to examine under this topic due to time and resources constraints.

Simultaneously, it explores the role of consultancies in the development of technological and non-technological innovations, assuming that innovation is developed
within the company, with the support of consultancies, and then launched into the market. It does not examine the role of consultancies in defining new paths to the market, namely through the identification of innovations that are not interesting to be developed inside the company (out of company’s scope) and by marketing them in the market to allow its exploitation by other players in the innovation system.

The thesis discloses several starting points to help deepen the understanding of innovation intermediaries’ roles in the business innovation processes. The conceptual framework can be used as a theoretical basis for the development of empirical research, of qualitative and quantitative natures. It would be interesting to re-examine the contribution of intermediaries in manufacturing industry using this new framework, which allows a more complete understanding of innovation. Also, it would be of interest to validate the tool with other types of intermediaries, besides consultancies, and to do the quantitative testing of the tool using a questionnaire-based mechanism.

Furthermore, it would be relevant to investigate deeper into the nature of the relationship between consultancies and service companies to enrich the analysis. One of the possibilities is ethnographical approaches. This path of investigation makes use of participant observation, field work, and interviewing over a sufficiently long enough period of time, allowing the formulation of deep understandings of the collaboration. Other options are longitudinal approaches, which extend over a lengthy period of time, allowing interesting insights.

5.5. Final remarks

This investigation was born during troubled times. The research started on 2014 and, on August of that year, I relocated with my family to a new continent, Asia, and more specifically to Macau. Everything new to the four of us, and all of us had to restart and adjust and tune our “engines” to a quite different environment.

Macau was the start of new professional challenges, which fortunately included a local university, where I became a “Visiting Lecturer”. Teaching marketing and innovation subjects was critical to enrich my theoretical and empirical knowledge as well as my
networking. Simultaneously, working at AICEP Macau provided me an overall perspective of business in Asia, what was crucial to open my horizons.

Nevertheless, it was really hard to be away from my academic nest (FEP has been my home since 1989) and from other researchers, faculty friends and colleagues as well as mentors. In this sense, the path has been a bit lonely, and many times when difficulties appeared there was no one to turn to. But, it is during tough times, that the tough have to get going, and there is no way back. I had to take risks and get out my comfort zone. And, the compensation was I got more independent, autonomous and pragmatic.

During this journey, I also became much familiarized with the mysterious force of “procrastination”. We know that we have to do something, but we always put other less important things ahead. Happily, the feeling of accomplishing something is much more inebriating!

After these intensively lived four years, I can definitely say that I became a researcher, whose main mission is to look for answers to important questions. I envisage research as a starting point, from a new and fresh perspective. As I see it, research is a path, a process, not an end in itself, aiming to originate new perspectives and new questions. In this sense, I think this investigation met its objective, the pointing out of new directions that hopefully will be taken and owned by others, to generate new insights concerning a theme of relevance and growing interest.
REFERENCES


COMPILATION OF ESSAYS

Essays 1 and 2 are an exact copy of the journal papers referred, with the necessary formatting adaptations for reasons of uniformity.
ESSAY 1


Abstract:

Innovation intermediaries play a direct and important role in firm’s innovation processes, facilitating the access to external knowledge of other players. Yet, little is known about the role and importance of innovation intermediaries in service industry. Based on the analysis of the diverse and recent developments in the literature, this paper provides a conceptual tool for analyzing the role of intermediaries within service innovation, developing and extending existing theory on services innovation and innovation intermediaries and contributing to a synthesis approach.

1. Introduction

Due to the increasing competitiveness of markets, companies are forced to innovate\(^1\). Cooperation activities with other players allows them to access complementary technological resources, which may contribute to faster development of innovations, improved market access, scale and scope economies, cost and risk sharing (Faria et al., 2010).

Innovation intermediaries emerged so as to facilitate the access to external knowledge of other players, acting like agents or brokers in the innovation process. Howells (2006) emphasizes the systemic value that innovation intermediaries may play in policy terms in an innovation system, improving connectedness within a system and creating new opportunities.

Regarding this topic, academic scholars have only recently started to analyze innovation intermediaries and further research is needed (Lichtenthaler and Ernest, 2008; Howells, 2006; Chesbrough, 2006). The existing research lacks focus on the service industry, and

\(^1\) Innovation can be broadly defined as the commercial application of new knowledge and is considered one of the key drivers of growth and productivity (Love et al., 2011).
there is limited research concerning the role of intermediaries in services. This does not come as a surprise however, as much of our current understanding of innovation has been derived from manufacturing studies (Tether, 2005).

Services represent around 62.5% of world GDP (source: World Factbook of CIA), contribute in a very significant way for employment creation, and are an important source of inputs in manufacturing. In the EU economy, services account for over 70% of the GDP and employment. Service innovation promotes directly services’ growth and productivity, and has indirect benefits in other industries and in the public sector (Love at al., 2011).

As services do matter (Den Hertog, 2000) and service innovation has direct benefits and indirect benefits in all the economy (Love at al., 2011) and external partnerships are of fundamental importance in service innovation (Love at al., 2011; Wagner, 2013; Trigo and Vence, 2012), it is thus important to understand the role of intermediaries in service industry. We still know far less about services and their innovation activities than we do about manufacturing (Tether, 2005), and the studies of service innovation as distinctive activities have the potential of contributing to the development of such a synthesis approach to innovation by pointing to features of innovation that have been largely ignored in studies taking a traditional, technology-focused manufacturing approach to innovation (Drejer, 2004).

The objective of this research is to understand the role of innovation intermediaries in service industry. To our knowledge, it is the first time that this topic has been studied. This is an exploratory study that aims to synthesize the main functions of intermediaries. Our argument is that service innovation has some particularities that have not been highlighted in intermediation literature and demands for a specific framework of analysis. To achieve our objective, we will draw on intermediation literature and service innovation literature and develop a theoretical framework to present the key insights.
2. Innovation intermediaries

The role of intermediary in innovation can be traced back to “middlemen” in the agricultural, wool and textile industries of 16th, 17th and 18th century Britain. These middlemen, not only had commercial functions, but also disseminate technical knowledge (Howells, 2006). Intermediaries have gained dimension and importance and, currently, their functions are extensive and vary from one organization to another.

Howells (2006) defines an intermediary “as an organization or body that acts an agent or broker in any aspect of the innovation process between two or more parties”, whose activities comprehend providing information about potential partners; brokering a transaction; acting as a mediator; finding advice, funding and support for the innovation outcomes of collaborations. Dalziel (2010) presents an alternative definition, stating that “innovation intermediaries as organizations or groups within organizations that work to enable innovation”. This definition emphasizes the organizational purpose of intermediaries.

Arguably, intermediaries bridge the gap between internal and external know-how, reduce the time to market and the time to know-how, increase firm’s efficiency in product development and the efficiency of its external service providers (Gassman et al., 2011). They help to reinforce the innovative capacity of companies, industries, regions and nations (Dalziel, 2010).

With the rise of the Open Innovation (OI) concept\(^2\), innovation intermediaries received a wider, recognized role. In an OI model, firms can and should use internal and external ideas/paths, and intermediaries, as specialist firms, emerge to provide information, access and funding to enable transactions to occur between parties (Chesbrough, 2006).

In what concerns the functions of innovation intermediaries, Howells’s (2006) contribution, widely accepted, highlights the following functions:

1. foresight and diagnostics;
2. scanning and information processing;

\(^2\) Although there is a discussion about whether open innovation (OI) really is a new paradigm or simply the repackaging of older concepts and findings, open innovation is in line with previous research which shows that knowledge relevant for industrial innovation is distributed among actors and organizations such as suppliers, users, universities and consultants (Clausen et al., 2013).
3. knowledge processing and combination/recombination;
4. gate keeping and brokering;
5. testing and validation;
6. accreditation;
7. validation and regulation;
8. protecting the results;
9. commercialization;
10. evaluation of outcomes.

This framework, resulting from a synthesis of the existing literature and a case study focused on the UK reality, considers that the intermediaries provide a wide and holistic role for their clients in the innovation process. The intermediary functions are very diverse along the innovation value chain, going from foresight, forecasting and technology road mapping to gatekeeping and brokering to technology assessment and evaluation.

A more detailed analysis of the proposed functions reveals that intermediaries are very focused on technological innovations, as their main tasks are helping clients in what concerns forecasting and technology road mapping; processing, generating and combining technical knowledge; testing, validation and accreditation standards; training companies’ collaborators in the use of new technologies or laboratory techniques; protecting the outcomes of collaboration through patent licensing; and technology assessment and evaluation.

Furthermore, the intermediaries involved in the case study are mainly organizations that provide innovation services to manufacturing companies, with a strong focus on technological innovations. Most of these organizations help clients in traditional manufacturing industries, even though some of them have diversified into new industries or technologies such as defense, security, aerospace, nuclear and power generation, and healthcare (Howells, 2006).

Howells (2006) points out the difficulty to construct a complete population list of innovation intermediaries in the UK, due to the lack of an accepted definition of an ‘innovation intermediary’; the complexity of organizations providing intermediary services in innovation processes, whose primary role may often not be as an
intermediary; and the absence of a formal identification of the sector by government or statistical entities.

In what concerns the **main roles** of intermediaries, Howell (2006) claims that the provision of intermediation functions may be less central to the intermediaries as they can offer services which involve no interaction with third-parties, even though the brokering role is central. Den Hertog (2000) differentiates the intermediaries that have a broker role, the innovation brokers, as their core function (facilitators of innovation), from those other intermediaries that also pursue traditional, non-third-party activities (sources or carriers of innovation). Likewise Winch and Courtney (2007) separate the knowledge-intensive business service firms and research and technology development organizations, which act as intermediaries as a by-product of their principal activities, apart from the innovation brokers, that are set up specifically to be the middlemen between the sources and users of new ideas in innovation networks.

Regarding **client-industries** of innovation intermediaries, some authors, like Winch and Courtney (2007) and (Klerkx and Leeuwis, 2009), study the innovation brokers which perform a broker role in an industry-specific innovation. Other authors, like Gassmann et al. (2011), refer that intermediaries as technical service providers, consultants and universities do not focus on one industry. They investigate intermediaries that work in the cross-industry innovation processes and transfer existing solutions from one industry to another by using analogies, identifying three types of intermediaries (the innovation broadener, the innovation leverager, and the innovation multiplier). Furthermore, Hargadon (1998) analyzes the role of knowledge brokers bridging knowledge between disparate industries. Hargadon and Sutton (1997) present a technology brokering model, grounded on the argument that “ideass from one group might solve the problems of another, but only if connections between existing solutions and problems can be made across the boundaries between them”.

Analysing **intermediary-client(s) relationships**, Howells (2006) points out that even though much of the analysis of intermediaries assumes that they operate in a simple triadic ‘one-to-one-to-one’ basis, intermediaries can supply services direct to their clients, on a one-to-one basis, that doesn’t involve any other organizations. They can also be involved in much more complex relationships, which functions at system or
network level. These systemic intermediaries play an important role in the formation and maintenance of innovation networks and systems (Van Lente et al, 2003; Klerkx and Leeuwis, 2009). Agogue et al. (2013) consider that they can act as architects which design prerequisites and offer leadership in cases of innovation in the fuzzy front end, where networks and brokered knowledge and ideas still have to be designed.

| Main Roles | 1. Innovation broker, facilitator of innovation (intermediary with a specific liaison role) | 2. Knowledge broker, carrier or source of innovation (intermediation as a result of the main activities of the intermediary) |
| Client-Industries | 1. Single-industry | 2. Cross-industry |
| Type of Relationships | 1. Basic (reduced number of actors, in dyadic or triadic relationships) | 2. Complex (collaborative innovation process, focused on innovation networks) |

Source: own formulation

There are a significant number of studies about innovation intermediaries from different research fields. Nevertheless, there is not a consistent and integrated literature, due to the low level of cross-referencing between authors (Howells, 2006). There are only a few studies focused on the holistic role of intermediaries, namely the one from Howells (2006). The literature recognizes the need to develop more and better conceptual frameworks to gain in-depth knowledge about the wide and complex structures that operate as innovation intermediaries (Dalziel, 2010; Howells, 2006).

Much of the existing studies are focused on manufacturing and also on agricultural industry, and little is known about the role of innovation intermediaries in service industry. The growing importance of the service industry, as well as its specificities differing from those found in manufacturing settings, emphasize the importance of contributions to the current understanding of service innovation (den Hertog et al, 2010; Tether, 2005; Tether and Tajar, 2008).

A search made in September 2015 on Thomson ISI Current Contents database (Social and Behavioral Sciences sub database) on “innovation intermediaries” + “service firms” in Topic did not lead to any relevant results. Some of the papers obtained are focused on
service firms (knowledge intensive business services) that play the role of innovation intermediaries. We found no study examining the role of the innovation intermediaries in the case of the client “service industry”.

3. Innovation in Services

Traditionally, services have been defined in a rather negative sense; once manufacturing industries are defined, everything else is assigned to the service industries. The heterogeneity of services has increased the difficulty of understanding its innovative nature.

Service innovation literature typically falls into one of the three main schools of thought (Coombs and Miles, 2000; Droege, H. et al., 2009):

1. The technologist or assimilation approach that reduces innovation to the adoption and use of technology (services are supplier-dominated, not true innovator). This approach attempts to assimilate services within the consolidated framework used for manufacturing sectors.

2. The service-oriented or differentiation approach that develops a specific framework for service innovation, highlighting their specificities (namely immateriality, perishability, heterogeneity and inseparability).

3. The integrative or synthesizing approach, which proposes a common conceptual framework, in an enlarged view of innovation which is applicable to any tangible or intangible product. It proposes a new definition of product.

The integrative approach is considered the most promising one, because the boundaries between goods and services become more blurred. As Tether (2005, pp. 182-183) states: “(...) these approaches to innovation are not peculiar to services. Although more prominent amongst services they are also found amongst manufacturers and other economic agents”. Castro at al. (2011) support that claim, when stating that innovation
ought to be defined in a broad sense and innovation typologies should include all types of innovation, in order to be applied in any business.

The integrative approach brings together the analysis of innovation in services and manufacturing. This school of thought considers that studies on service innovation clarify important elements which have been neglected when researching product innovation in manufacturing. So it is central to investigate service peculiarities to have a more complete understanding of innovation:

**Continuous mode of innovation**

Services are more like to engage in a continuous mode of innovation, rather than a staircase mode, because of its intangible and interactive nature (Tether, 2005). A new service is more of a set of activities, not a well-defined service, which is difficult to replicate exactly with each performance. Furthermore, the firms ‘capabilities evolve over time, namely in response to customer needs, through internal “learning by doing” and recruitment of new personnel. In this context, the identification of particular innovations is difficult.

**Non-technological innovations**

Castro at al. (2011) point out that the manufacturing companies have a greater tendency to carry out technological innovations (product and process innovations), while service companies are more inclined to implement non-technological innovations (organizational and marketing innovations). According to Evangelista and Vezzani (2010), pure technological innovations (product or process) are more relevant in the manufacturing sector than they are in services, and the organizational innovations are more significant in services.

**Impact of innovation**

Innovation affects the economic performance of companies (measured by the rate of sales growth). In manufacturing firms the impact of pure product or process innovations

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3 Castro at al. (2011), in line with Tether (2005), state that integrating models, irrespective of the sector of the firm, should include the three basic types of innovation: technological (product, process); organizational (innovation in management systems, work organization, relations with other companies) and commercial (significant product design and packaging modifications, and significant modifications in sales and distribution methods).
and of the organizational innovations is higher than in service firms (Evangelista and Vezzani, 2010). Services firms should adopt a more holistic approach to innovation, combining technological and non-technological innovations (Evangelista and Vezzani, 2010). In this line, Mothe and Nguyen Thi (2012) emphasize that organizational and marketing innovation in service firms led to a higher propensity to introduce new or improved products.

**Soft sources and strengths at innovation**

Tether (2005) refers that manufacturers tend to place greater emphasis on “hard” sources of technology (R&D and the acquisition of advanced equipment) whereas services emphasize “soft” sources (cooperation with suppliers and customers). Strengths at innovation of service firms lie in “soft” attributes, namely the skills of their workforce and their cooperation practices with customers and suppliers. Leiponen (2005) emphasizes that external sourcing of knowledge, especially from customers and competitors, positively affects both the probability and extent of innovation, while in-house R&D intensity had no discernible effect.

**Innovation indicators**

A service innovation often involves the combination of one or more of four dimensions: the service concept, the client interface, the service delivery system and organization, and technological options (Den Hertog, 2000). It requires structurally new technological, organizational, or human capabilities of the service organization. Due to the multiple forms of the service innovations, and the “soft side” of services innovation (focus on non-technological innovations), it is easily overlooked by traditional indicators such as R&D expenditures, and patents (Gotsch and Hipp, 2012; Tether, 2005; Djellal and Gallouj (2000)). The propensity to patent of a service company is one third of the likelihood of a manufacturing company (Blind et al., 2003). Miles (2003) highlights that R&D or R&D-like activities are not acknowledged as such by services managers as well as by statisticians and policymakers.
Partners

In what concerns innovation service partnerships, the role of external “openness” through partners and linkages is of particular importance in service sector innovation (Love et al., 2011). Trigo and Vence (2012) conclude that the relationship between cooperation behavior and innovation performance is directly linked - the higher the innovative level of a service firm, the higher cooperative level and vice versa.

According to some authors, the preferred innovations partners in services are customers, suppliers, competitors (Tether, 2005; Leiponen, 2005; Love et al., 2013). Also, specialist knowledge providers (universities, public and private research organizations and consultants) can be valuable associates (Theter and Tajar, 2008; Trigo and Vence, 2012; Love et al., 2011), especially the consultants.

To sum up, service innovation is rather different than manufacturing innovation due namely to the significance of a “softer” mode of innovation among service firms.

4. Towards a Theoretical Framework

The functions of intermediaries in service innovation are constrained by the idiosyncratic nature of services. It is important to draw on service specificities (Tether, 2005; Den Hertog, 2000) to propose a theoretical framework that enables the understanding of the role of innovation intermediaries in service industry.

The nature of services demands a wide definition of innovation, which encompasses technological and non-technological innovations (Djellal and Gallouj, 2000). If we only focus on technological innovations, the brokering function of intermediaries is central in their activities, as Howell (2006) proposed. But, arguably, intermediaries are not necessarily brokers between two or more parties, and can be involved in bilateral and unilateral activities. The soft nature of services requires that intermediaries should be often involved in one-to-one relationships. The introduction of non-technological innovations, by instance the definition of a new organizational structure or a new distribution policy, does not require the intervention of a third party. In this context, an innovation intermediary in services is not only a facilitator (a broker) but a carrier, a source of innovation (Den Hertog, 2000). As so, service intermediaries should be
identified based on their purpose, as organizations that work to enable innovation as suggested by Dalziel (2010).

Service companies favor organizational innovation (Howells et al., 2004) and demand the adoption of a more systemic approach to innovation as pure technological strategies do not have a clear impact in firms’ performance. The existing literature is focused on technological innovations, and in technological markets (Agogue et al., 2013; Gassmann et al., 2012; Lichtenthaler and Ernest, 2008; Howell, 2006). The framework suggested by Howells (2006) places centrally the technological innovations, and its impact on organizational performance, and can be applied in the manufacturing industry. But, in the case of service industry, where the non-technological innovations are fundamental and strengths at innovation lie in “soft” attributes, its application is arguably more limited.

Our proposal highlights the role of intermediaries on both technological and non-technological innovations. In what concerns technological innovation, we focus on product innovation because of the difficulty of distinguishing product from process innovation in service industry and process from organizational innovation in all industries (Tether, 2005; Mansury and Love, 2008). Product innovation is defined as the introduction of goods or services that are new or significantly improved with respect to their specifications or intended uses. This includes significant improvements in technical specifications, components and materials, incorporated software, user friendliness and/or other functional characteristics (OECD, 2005).

Regarding non-technological innovations, we consider the two major types of non-technological innovation, organizational and marketing innovations, according to 2005 OECD Oslo Manual definition of innovation. An organizational innovation is “the implementation of a new organizational method in the firm’s business practices (including knowledge management), workplace organization or external relations that has not been previously used by the firm. It must be the result of strategic decisions taken by management” (OECD, 2005). Marketing innovation is defined as “the implementation of a new marketing concept or strategy that differs significantly from the enterprise’s existing marketing methods and which has not been used before. It
entails significant changes in product design or packaging, product placement, product promotion or pricing” (OECD, 2005).

Service firms are more oriented to a continuous change mode of innovation, where there is an absence of definite step changes in terms of what is produced, and they can be perceived as a bag of capabilities whose evolution is conditioned by customer needs. Service innovations are often intangible, difficult to assess and to measure. They are interactive, resulting of employee-customer interaction. They have a conceptual nature, namely due to the services’ intangibility, and encompass the mixing of new and existing service elements into an integrated service. As a result, innovation intermediaries’ functions, regarding both tech and non-technological innovations, emphasize the conceptualization of new service offers as well as the definition of new organizational methods and of new marketing strategies (functions 4, 5 and 6).

Service innovation can involve the combination of services from different providers, which can demand external support in network design and management (function 7). Accordingly to Agarwal and Selen (2009), innovations in services are increasingly brought to the market by networks of companies.

Technology, and particular information technologies, is important for service industry, providing opportunities to reformulate service propositions (Den Hertog et al., 2010), namely in terms of interaction with clients, and service firms need to be informed of the latest technologies to ensure competitiveness (function 3).

Services are also difficult to reproduce consistently and exactly, and, as a result, service innovations can be difficult to prototype and test in a laboratory setting and to scale it up. The protection of innovations gains also new specificities, as patents are not considered an interesting protection tool by service companies. Service companies favor other IPR tools, such as the trademarks and trade secrets. As result, some functions of intermediaries should be restructured (such as scaling, testing, accreditation, and protecting the results) to cope with these challenges (functions 8, 10, 11).

Due to the high involvement of customers in service definition and production, it is of critical to gain knowledge on trends and customer needs (function 2). Also, human resources are critical in service industry due to its soft nature, so the selection and training gain a particular relevance (function 9). Employees are the “‘face of service
firms,” and enhance both innovation volume and radicalness, because of their proximity with customers and their knowledge gained through experience (Ordanini and Parasuraman, 2011). At the same time, the human component in services creates difficulties in the introduction of service innovations on a large-scale in a uniform way.

The diagnostic of the innovation needs of the service company (which includes the measurement of innovation activities) as well as the assessment of investment needs, costs, and support schemes) are activities were the support of a third party such as an intermediary is very relevant (functions 1, 12).

Table 2 synthesize our proposition of the main functions of an intermediary in service industry, following (for pedagogic reasons) a linear and sequential perspective of the innovation process.

Table 2 – Service intermediaries: main functions

<table>
<thead>
<tr>
<th>Functions</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Analysis and definition of innovation needs</td>
<td>The assessment of capabilities and needs in innovation can be a tool of large spectra (analyzing and measuring technological and non-technological dimensions), dynamism (forecasting future needs) and proactivity (proposing actions).</td>
</tr>
<tr>
<td>2. Identification of user needs and major trends</td>
<td>It is of major importance of understanding users and forecasting (potential) needs and trends. According to Nambisan (2002), customers act as a co-creator of innovative products and services, as a source of innovative ideas, and as a user for prototype testing or helping other users in learning about the product or service. Carbonell et al. (2009) emphasize that customer involvement in new service development affects operational outcomes (technical quality and innovation speed).</td>
</tr>
<tr>
<td>3. Signalization of technological options</td>
<td>Technology (namely ICT) has enabled numerous services innovations. New service concepts, client interfaces and service delivery are a result of new technological capabilities, mostly ICT (Den Hertog et al., 2003).</td>
</tr>
<tr>
<td>4. Conceptualising new service</td>
<td>A service innovation cannot be developed</td>
</tr>
<tr>
<td>Functions</td>
<td>Comments</td>
</tr>
<tr>
<td>-----------</td>
<td>----------</td>
</tr>
<tr>
<td>offers</td>
<td>in a similar way as physical goods, because of its conceptual nature which makes it difficult for a customer to assess previously what will be experienced and what will be delivered and because of its highly interactive or shared process character (Den Hertog et al., 2010).</td>
</tr>
<tr>
<td>5. Conceptualizing new organizational methods</td>
<td>Service companies tend to implement non-technological, organizational innovations (Howells et al., 2004; Castro et al., 2011). They include changes in the way in which provision is organized within the firm and changes to the relationships between the firm and its partners.</td>
</tr>
<tr>
<td>6. Definition of new marketing strategies</td>
<td>Marketing innovations are changes in design or packaging, changes in sales or distribution methods, advertising or permanent exhibitions, which aim to increase appeal for the firms’ products and/or to enter new markets (Mothe and Nguyen Thi, 2012).</td>
</tr>
<tr>
<td>7. Identification of potential partners (suppliers, customers and/or competitors)</td>
<td>Many service propositions are combinations of service elements from different providers (Den Hertog et al., 2010). Cooperation practices with suppliers, competitors and customers are fundamental in services (Tether, 2005; Leiponen, 2005).</td>
</tr>
<tr>
<td>8. Testing and scaling</td>
<td>New service concepts, unlike manufacturing products, cannot be tested and prototyped in a laboratory, they have to be tried out in practice. It is a challenge to introduce service innovations on a large-scale in a uniform way (Den Hertog et al., 2010).</td>
</tr>
<tr>
<td>9. Selection and training of specialized workforce</td>
<td>The human element, namely staff qualification, skills and professionalism, is strategic in service sectors (Howells and Tether, 2004). The ICT skills and commercial/advisory skills are very valuable in service industry (Den Hertog et al., 2003).</td>
</tr>
<tr>
<td>10. Protection of innovation assets</td>
<td>The protection of innovations in service industries is important and there mechanisms of protection like secrecy,</td>
</tr>
</tbody>
</table>
market lead and the long-term commitment of personnel and also intellectual property rights (trademarks, copyright and patents). Nevertheless, transferring the patent system from the manufacturing sector to the service sector raises some issues, namely patents can be only applied for innovative technical solutions (Blind et al., 2003).

### 11. Accreditation

Several entities, private, non-profit or public, promote the development of innovation management (IM) capabilities of organizations for sustainable development. There are a lot of normative documents related to IM.

### 12. Investment appraisal

Definition of investments and related cost and also possible support schemes (loans, government incentives, venture capital).

Figure 1 groups the different functions of innovation intermediaries in four main stages (diagnostic, design, implementation and support).

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**Figure 1– Intermediaries Functions by Stages**
5. Conclusion

This paper provides a conceptual tool for analyzing the role of intermediaries within service innovation, developing and extending existing theory on services innovation and innovation intermediaries and contributing to a synthesis approach. It is, to our knowledge, the first time a conceptual framework is developed to approach the importance of innovation intermediaries in service industry. The paper attests the need for a conceptual strengthening of service innovation studies. By integrating several fields of research, our research provides a solid ground for academics, practitioners and consultants that seek to develop their work in this field.

The analysis presented in our research extends current understanding regarding innovation intermediaries, by highlighting the role of intermediaries in service industry regarding non-technological innovations, which is a key area of success in service innovation. Intermediation in service industry has some peculiarities that result from services firms’ orientation to innovation, which somewhat differs from that of manufacturers:

- Importance of non-technological innovations – A more complete view of innovation, including technological and non-technical dimensions, demands a revision on intermediaries’ roles in the different phases (especially in what is related to the conceptualization of innovations).
- Intangibility and conceptual nature of services – Many new service concepts, unlike manufacturing products, cannot be prototyped and tested in a laboratory; they have to be tested in practice, in collaboration with clients and workforce. Likewise, service innovation is difficult to measure and protect. These factors demand a different approach and support of innovation intermediaries;
- Importance of customer and of workforce involvement – A major part of services offers are co-created with the client (Den Hertog et al., 2010). Clients and front-employees are fundamental players in service innovation and innovation intermediaries have to integrate them in their service proposition.

The scrutiny of the idiosyncrasies of intermediation in service industry can contribute to a deeper knowledge of the innovation process as a whole. The framework can be used
to clarify the concept of innovation intermediaries in service contexts and to get alert so as to the importance of such intermediaries for the success of integrated innovation in their organizations.

This study, drawing on the existing literature, envisages a wider role for the innovation intermediaries, suggesting some new and renewed functions that result from a more enlarged understanding of the innovation concept. Likewise this research reinforces the importance of a purpose-based definition of innovation intermediaries by opposition of a brokering-based definition.

Two key recommendations arise from our study, namely:

- **Importance of promoting the involvement of players from (management) universities** – Universities have the capability to offer specific services in what concerns non-technological innovations (organizational and marketing innovations). Nevertheless, service firms have weaker direct links with the public science-base than do manufacturers. Tether and Tajar (2008) alert that the allocation of science funds favors manufacturing firms relative to services. This suggests that it is important to review the interface service firms-universities to boost service innovation.

- **Significance of consultants as innovation intermediaries** – Service industry requires more complex strategies of innovation, a mix of technological and non-technological innovations (Evangelista and Vezzani, 2010). Consultants are considered facilitators, carriers and sources of innovation in service industry (Den Hertog, 2000). In the growing group of intermediaries, Bessant and Rush (1995) emphasize the role of consultants, tough the diversity of their functions and their flexibility in modes of operation and interaction.

One of the mains limitations of this framework it is that has never been tested empirically. We suggest that future research on the value and application of this tool should be undertaken, namely testing it among service innovation intermediaries and service companies.

Another limitation of this study is that it did not take in account the wide variety of service activities. In the future it is necessary to analyze the role of innovation
intermediaries regarding the different types of services and distinct approaches to innovation.

Furthermore, this theoretical tool was conceived to be applied in service industry, bringing to the fore some neglected aspects in innovation. Now the challenge is to draw on the existing frameworks related to manufacturing industry and propose a new tool, encompassing service and manufacturing innovation.

References
From Open Innovation: Researching a New Paradigm Open Innovation, Chapter 1, pp. 1-12, Oxford: Oxford University Press.


ESSAY 2


Abstract:

Much of the existing literature on innovation intermediaries is focused on manufacturing, and limited scientific knowledge has been developed about the role of intermediaries in services. This paper aims to expand and test an existing framework on the roles and functions of intermediaries in services, focusing specifically on consultancies. Furthermore, it is investigated to what extent services and manufacturing are perceived as different clients, and what represents the added-value of consultancies. Using a case study approach, consultancies’ activities are analyzed and compared within services and manufacturing contexts. Findings indicate that while consultancies do not consider manufacturing companies different from service companies, during the collaboration process several differences do exist in terms of their role in these two types of companies, mainly due to different degrees of development of the corresponding innovation strategies and to different perspectives regarding the use of technology.

1. Introduction

According to Howells (2006), intermediaries act as agents or brokers in innovation, which emphasizes their brokering role (brokering-based definition). Dalziel (2010) proposes an alternative definition, focusing on the intermediaries’ purpose, describing them as organizations or groups within organizations that work to enable innovation (purpose-based definition).

There is a great diversity of innovation intermediaries, namely technology brokers, university liaison departments, regional technology centers, innovation agencies, cross-national networks. Consultancies are included in this group, due to their extensive
services, and their flexibility in modes of operation and interaction (Bessant and Rush, 1995). In an open innovation model, consultancies are considered to play an important role as source of ideas and knowledge (Tether and Tajar, 2008).

Innovation intermediaries strengthen the innovative capacity of companies, industries, regions and nations. They reduce the gap between internal and external knowledge, decrease the time to access know-how and market, increasing the firm’s innovation efficiency (Dalziel, 2010; Gassman et al., 2011).

Most of the existing studies on innovation intermediaries are focused on primary and secondary sectors (namely agriculture and manufacturing), yet little is known about the role and significance of innovation intermediaries in the service industry. The growing importance of the service industry as well as its specificities underpins the importance of contributions to the current understanding of service innovation (den Hertog et al., 2010; Tether, 2005; Tether and Tajar, 2008).

Pinto et al. (2016) introduced a conceptual framework focused on the role of intermediaries within service innovation, which is a useful contribution to that literature gap. In that work, consultancies emerged as key innovation intermediaries in the service industry, together with universities, due to their flexibility in modes of operation and interaction.

However, there were two key limitations of the conceptual framework developed by those authors. First, the framework had not been tested empirically. Second, the framework had been developed to be used in services, yet it was important to ensure that the specificities of services had been properly addressed.

These limitations lead to a future research path that is followed in this paper, namely the empirical testing of the proposed framework, using consultancies whose clients belong to service and manufacturing sectors, in order to perform the comparison and specificities related to services included in the framework.

Our main research questions are:

- To what extent consultancies perceive [innovation in] service (companies) as different from [innovation in] manufacturing (companies)?
- How do consultancies support the innovation processes of service industry?
- What is the added-value of consultancies to the innovation processes of service
In line with the research questions and knowing that the framework had not been tested empirically, a qualitative methodology was adopted, namely a multiple case study, where compared cases are consultancy companies acting in service and manufacturing sectors.

In order to present the research undertaken, the paper is structured as follows. Section two includes a synthetic review of the existing literature on innovation intermediaries, with a specific focus on consultancies, which includes the framework proposed by Pinto et al. (2016). Section three is dedicated to the methodological planning of the case study research. In the fourth section, results are presented, drawing on six analysis dimensions. Section five concludes the work and highlights the research contributions and section six asserts limitations of the study and future research directions.

2. Innovation Intermediaries

2.1. Functions

Innovation is critical to ensure the survival and growth of businesses. Knowledge is not consistently distributed among the market players, and companies have to move beyond their borders to manage innovation (Chesbrough, 2006). In an open innovation model, innovation intermediaries, as specialist entities, arise to provide information, access and funding to enable transactions to occur between parties (Chesbrough, 2006).

Intermediaries in innovation can be traced back to the “middlemen” in the agricultural, wool and textile industries of 16<sup>th</sup>, 17<sup>th</sup> and 18<sup>th</sup> century Britain. These middlemen had commercial functions and disseminated technical knowledge (Howells, 2006). Intermediaries have gained importance ever since and, currently, their functions are extensive and vary from one organization to another. With the rise of the Open Innovation concept, innovation intermediaries received a wider, more recognized role. Intermediaries work directly with their clients on a one-to-one basis, seeking for lasting collaborations, but are increasingly involved in more complex relationships in the context of innovation networks (Howells, 2006).
Intermediaries may act as architects of collective exploration and creation of knowledge in the fuzzy front end of innovation, where technologies, knowledge, market and network of relevant actors are not known or do not yet exist (Agogué, 2013).

In what concerns the functions of innovation intermediaries, Howells’ (2006) contribution highlights the following functions: Foresight and diagnostics; Scanning and information processing; Knowledge processing and combination/recombination; Gatekeeping and brokering; Testing and validation; Accreditation; Validation and regulation; Protecting the results; Commercialization; and Evaluation of outcomes.

In Howells’ (2006) perspective, innovation intermediaries support new technology development by their clients, working as a brokering agents between two or more parties (Klerkx and Leeuwis, 2008; Dalziel, 2010).

Pinto et al. (2016) proposed a new tool for service industry, arguing that Howells’ (2006) framework was limited to technological innovations, and could not be directly applied to service industry, due to services peculiarities. According to the OECD (2005), innovation in services can differ substantially from many manufacturing-oriented sectors. It is often less formally organized, more incremental in nature and less technological.

Therefore, in contrast with Howells’ (2006) framework, Pinto et al. (2016) identified 12 functions of innovation intermediaries which may apply to service industries (see Table 1).

Table 1: Functions of innovation intermediaries proposed by Pinto et al. (2016):

<table>
<thead>
<tr>
<th>Function</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Analysis and definition of innovation needs</td>
<td>Pinto et al. (2016) ’s model, drawing on an enlarged view of innovation, proposes a more holistic diagnostic, beyond technology, as well as the identification of the user needs and trends alongside with the analysis of the technological options. In Howells’ model the foresight and diagnostic are essentially related with technology forecasting and technology road mapping.</td>
</tr>
<tr>
<td>2. Identification of user needs and major trends</td>
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<tr>
<td>3. Signalization of technological options</td>
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</tr>
</tbody>
</table>

4 A service provision is about organizing a solution, placing a package of capabilities and competences (human, technological, organizational) at the disposal of a client (Gadrey et al., 1995), and services are often characterized by its intangibility, inseparability, variability, and perishability.
<table>
<thead>
<tr>
<th>Function</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>4. Conceptualization of new service offerings</td>
<td>This approach proposes a wider role for the intermediaries, as a result of an enlarged understanding of the innovation concept, which includes technological (product and process) and non-technological (organizational and marketing) innovations. The support of intermediaries in the development of marketing and organizational innovations is placed alongside with their support in the conceptualization of product (service or goods) innovations.</td>
</tr>
<tr>
<td>5. Conceptualization of new organizational methods</td>
<td></td>
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<tr>
<td>6. Conceptualization of new marketing strategies</td>
<td></td>
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<tr>
<td>7. Identification of potential partners</td>
<td>The brokering function, associated with matchmaking and brokering collaborative deals for the intermediary´s client, which is crucial in Howells´ proposal since innovation is mostly associated with new technologies, appears somewhat redefined in this new framework. An intermediary in services supports the identification of the client´s potential innovation partners, which can be suppliers and knowledge centers but also other players such as clients and competitors.</td>
</tr>
<tr>
<td>8. Testing and scaling</td>
<td>The testing and scaling of innovations gain new dimensions in this model, challenging the intermediary´s competences. Tangible products can be tried out in a laboratory while the peculiar nature of services makes almost impossible to test them there. Services are also difficult to reproduce consistently and exactly, what jeopardizes the introduction of standardized services on a large-scale.</td>
</tr>
<tr>
<td>9. Selection and training of specialized workforce</td>
<td>People are of utmost importance in services. Consequently, the selection and training of human resources is critical. Services are a result of co-production, involving the provider and the client. The service staff, namely frontline staff, has a major role in “customer education”, drives customer satisfaction and loyalty, and influences the company´s productivity.</td>
</tr>
<tr>
<td>10. Protection of innovation assets</td>
<td>The protection of innovations in services is more challenging due to the difficulty of using tools such as patents. Service companies favor other forms of intellectual protection (IP), namely trademarks and trade secrets, what demands a wide approach to IP issues.</td>
</tr>
<tr>
<td>11. Accreditation / certification</td>
<td>Unlike product certification, the certification of services is a relatively recent activity and there are some problems in implementing it because there are still insufficient standards covering most services. Another difficulty faced in the implementation of service certification has to do with the fact that some standards do not establish measurable criteria from which quality characteristics are derived.</td>
</tr>
<tr>
<td>12. Accreditation / certification</td>
<td></td>
</tr>
<tr>
<td>Function</td>
<td>Comments</td>
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<td>------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>12. Investment appraisal</td>
<td>The evaluation of innovation investments as well as the funding opportunities is an important function of intermediaries that can gains new specificities in services due to the soft nature of service innovations.</td>
</tr>
</tbody>
</table>

This framework, drawing on Howells’ proposal, envisages a wider role for the innovation intermediaries, suggesting some new and renewed functions that result from a more enlarged understanding of the innovation concept (Pinto et al., 2016). In this sense, it advanced a synthesized approach to innovation in services, emphasizing features of innovation that have been overlooked in studies taking a technology-focused manufacturing approach to innovation.

### 2.2. Consultancies

Consultancies can be classified as KIBS - Knowledge-Intensive Business Services (Lemus-Aguilar et al., 2015). KIBS industries are private companies or organizations, relying heavily on professional knowledge i.e. knowledge or expertise related to a specific (technical) discipline or (technical) functional domain, and supplying intermediate products and services that are knowledge-based.

KIBS are seen to act as facilitators - when supporting a client in its innovation process, but not creating nor transferring innovation from others; carriers - when transferring existing innovations; sources – when triggering and developing innovations in the client; and also as co-producers of innovation - working closely and interactively with the client, in a two-way learning process (Muller and Doloreux, 2009; Winch and Courtney, 2007; Den Hertog et al., 2010; Miles et al., 1995; Bilderbeek and Den Hertog, 1998). According to Klerkx and Leeuwis, (2008), the intermediaries that have a broker role as their core function are facilitators of innovation while those also develop non-third-party activities are either sources or carriers of innovation.

KIBS are fundamental partners of SMEs, as their innovation capacities depend strongly on the access to external informational resources (Muller and Zenker, 2001). Among
external knowledge providers, KIBS, and specially consultancies, are service firms’ (with the exception of technical service firms) favored partners as they are more easily reached than other knowledge providers (Pinto et al., 2016; Tether and Tajar, 2008). Significant knowledge is produced in the science-base and spread to ‘end-user’ companies by consultancies (Tether and Tajar, 2008).

3. Methodology

We adopt an exploratory research design, more specifically a multiple case study approach (Yin, 2003, Eisenhardt, 1989), which allows a more profound understanding of consultancies’ involvement in the innovation processes of their clients, when their portfolio included both services and manufacturing companies. The geographical focus was Portugal, a country with many consultancy companies, which was also compatible with logistical and financial restraints of the research team.

Case selection followed a specific procedure. There were a large number of consultancies operating in Portugal, yet only a small number of those companies had as main organizational purpose to enable innovation. We reached to Portuguese innovation experts in order to identify compatible cases and 20 companies were shortlisted.

From this group, four companies were selected based on their relevance (type of services, type of clients, size) and accessibility (see Table 2). All offered a significant diversity of services to clients belonging to both manufacturing and service industries, and promoted themselves as “innovation enablers”. Note that the names of the consultancies have been withheld due to confidentiality reasons.

Table 2. Cases overview.

<table>
<thead>
<tr>
<th>Name</th>
<th>Size (number of employees)</th>
<th>Main Clients</th>
<th>Age (years)</th>
<th>Main Markets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case 1</td>
<td>89</td>
<td>Banking, Retail, Tourism, Manufacturing Industry</td>
<td>6</td>
<td>Portugal, Spain, UK, Italy, and Angola</td>
</tr>
<tr>
<td>Case 2</td>
<td>75</td>
<td>Biotechnology, Pharmaceutical, ICT, Molds, Food</td>
<td>21</td>
<td>Portugal, Spain, P. R. China, Singapore, and</td>
</tr>
</tbody>
</table>
Empirical data sources were collected from interviews with CEOs or innovation department managers, as they were responsible for defining the mission and strategy of the company/department, and had a broader perspective over company activities.

The data collection took place between January and March of 2016. The four interviews, of about 90 minutes each, followed semi-structured, open-ended guidelines and were oriented around three main blocks: Business Model, Collaboration Process and Value Added (see Fig.1 and Appendix 1).

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**Fig. 1.** Components analyzed in the interviews

We asked managers to describe their business model (namely their services, types of clients, main resources, and partnerships‘), the collaboration process with clients (main roles and functions), and immediate impacts on clients and challenges faced, concerning

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In order to further detail the Business Model component, Canvas model is used (Osterwalder and Pigneur, 2010) for three areas which are key to consultants’ intermediation activities (offerings, customers and infrastructure).
services and manufacturing clients.

Other sources of evidence were explored such as internal documents provided by the consultancies, information from websites and media (press and social media) as well as direct observation.

Data analysis followed a content analysis approach, with initial coding developed based on the components analyzed in the interview, allowing, as well, the identification of new categories (Yin, 2003). After the initial coding all categories were double-checked for consistency and categories have been reviewed.

4. Multiple Case Studies: Results

4.1. Cases Presentation

Case 1

Case 1 is a company focused on consulting and management training, more specifically on scientific methodologies widely accepted to boost clients’ competitiveness. It has a research center that develops scientific knowledge, relying on academic partnerships, and has a training academy.

Its team has high academic qualifications (PhD and post-graduate courses in management, professional and international certifications of reference) and specific expertise in the fields of construction, energy, health, telecommunications, retail, and services industry.

Initially, the company was focused on project management services. Nowadays, the company is organized in five main service areas: Innovation management (innovation assessments, and opportunities identification); Benefits management (evaluation of projects); Business analysis (identification of gaps, development of strategies and management tools); Project management; Dynamic capabilities (identification of gaps, advisory, and development and implementation of leadership and talent management programs)
Case 2
Case 2 is part of a wider group with subsidiaries in other markets. Its consultancies are from different nationalities and have different professional and academic backgrounds. It provides services in three areas: consulting, R&D, and training. The company focuses its activities in the area of innovation (innovation management, competence development, internationalization), science and technology (technology transfer, R&D), and territorial development (regional and sustainable development). The market differentiation relies on its specific expertise in the areas of science and technology. Its main clients are private companies, professional and business associations, scientific and technological institutions, public administration entities, and international organizations (e.g. European Commission, World Bank).

Case 3
Case 3 offers consultancy services to business companies and business associations. Its main clients are companies from the information technologies industry and from the manufacturing industry. It has a subsidiary located in Africa. It presents a technological profile, due to professional and academic background of its CEO. At the time of the research, it was diversifying its services to non-technological areas to satisfy clients’ increasing needs, in areas such as internationalization and marketing.

The company differentiation lies in technological areas. It identifies the source of a specific technology which satisfies a customer need, and supports its transfer to the client.

Its team is separated into two distinct groups: the first one is composed by a group of engineers (fields of physics, industrial management, information technologies and biotechnology); the second one, a much more eclectic group, has academic background in economy, management, marketing, accounting, international relations.

Case 3 services are in the fields of Business management – services regarding projects of expansion, investment and fiscal optimization; Strategy and development – services to support company strategic decision making; Research & technological development – technical consultancy in the areas of information technologies, electronic, health,
manufacturing and new materials; Certifications (quality, environment innovation, social responsibility); Project management – technical, administrative and financial management of ongoing investment projects.

**Case 4**

Case 4 is a consulting and training company in the areas of business strategy and innovation management. It works alongside its clients to provide tailor made solutions for each organization, fostering the development of its clients’ innovative capacities. The company relies on a net of external consultancies, for consulting or training services, with specific expertise in different fields. Its clients’ portfolio is composed mainly by local companies, which belong to manufacturing industry (namely fashion) and retail industries. Around half of its clients belong to service industry.

Case 4 supports the company’s innovation processes through consulting services. Under this remit, it offers business diagnosis and specific audits (marketing area), marketing strategic plans and studies. It typically acts at strategic level, focusing in the diagnostic and strategy definition. It provides information regarding market trends and best practices as well as technological options and main players in the industry (companies, research centers, universities, suppliers …). It also can offer strategic advice regarding the definition of new products and processes. The operationalization of the strategic plan can be done by the company, eventually with the support of other players, which can be recommended by Case 4.

Additionally, Case 4 promotes customized training programs and also thematic workshops, emphasizing the development of new competencies that will allow participants to respond in a creative and quick manner to the changing business environment. It positions as the link between academia and business, focusing on the transmission of state of the art knowledge along with evidence of best practices.

### 4.2. Results

**Business Model: Offerings**

The consultancies provide services in the areas of information and access to other
players in the innovation system independently of the clients’ industries. None of the four consultancies considers being a specialist in innovation funding, even though one of the companies of the Case 2’s Group provides business support in the area of venture capital. Case 2 and Case 3 prepare companies’ applications to EU funded programs in the area of innovation, R&D and fiscal incentives.

Case 1’s value proposition is based on the transmission of scientific knowledge to enhance its clients’ innovation process. Its expertise is supported by best practices and procedures, namely the ROI Methodology, BABOK Guide, PMBOK Guide and HCI (Human Capital Institute). It has a research center and a training academy, to foster knowledge creation and transmission.

Case 2 CEO highlights: “We are a knowledge management company, with an emphasis on science and technology areas, which aims to manage projects that foster innovation. We boost the connectedness of the innovation system, functioning as an interface between private companies, universities and other knowledge centers, and national and international public organizations”. It has a large network of contacts, which continually and proactively increases. Case 2 also helps private companies to structuring their innovations activities, identifying and defining processes and procedures, and creating innovation centers or groups, in order to enhance their innovation outputs.

Case 3’s value proposition relies on providing information and access to players (namely the universities) on the innovation system. Depending on the type/dimension of client, Case 3 can help clients to articulate its innovation needs and search for the technology among the possible sources and make the matchmaking or, instead, Case 3 can just locate the technology and do the matchmaking. Case 3 CEO states: “We are perceived as a trustworthy intermediary in ICT industries”.

Case 4 provides services in the areas of consultancy and training. It supports the client innovation processes acting at diagnostic and strategic reflection level as well as at the innovation implementation level. The consultancy works closely with the universities and research centres, to keep track regarding the state-of-the-art research, which “(...) allows us to have a strong reputation as a reliable information provider”, states Case 4 CEO. Case 4 is specialized in non-technological innovation, especially in the areas of marketing.
Business Model: Customers

All four consultancies provide services to manufacturing and service companies. They claim they do not do market segmentation according to the client’s industry (services or manufacturing) as they consider service and manufacturing companies’ needs to be similar.

Case 1 points out that traditionally innovation services were requested essentially by manufacturing companies, as a result of the (reduced) dimension and (not complex) organizational structure of service companies. Nowadays, things are different, and service industry gained significant importance. Case 1 manager refers that “service companies became interested in innovation topics more recently and, today, both service and manufacturing companies are key clients”. Likewise, Case 2 refers that both type of clients are equally important. Its CEO comments “We do not target any special industry. Our clients belong to different industries, such as agro-food, pharmaceuticals, biotechnology, (...)”.

There is some industry specialization in the case of Case 3 and Case 4. Case 3’s main targets are ICT and manufacturing companies, mainly as a result of its CEO’s academic and professional background. Case 3 acknowledges that these industries offer (more) cross-selling opportunities, what makes them more interesting clients. The consultancy is specialized in technological innovation. The main clients of Case 4 belong to retail and fashion industries, even though the consultancy mentions that all industries have innovation needs, and are potential clients. Case 4 considers that its location influences the type of clients, as companies usually look for local suppliers. “Our headquarters are located in the North of Portugal; our main clients are companies from the local clusters, namely from fashion cluster”.

The consultancies point out that the main interlocutors of service and manufacturing companies are usually different. Due to its dimension and structure, typically service companies do not have an R&D department, and usually marketing departments lead the innovation process. In the case of manufacturing, some companies have an R&D department or the interaction is done with production department.

Most part of the consultancies considers the needs of service companies to be somewhat different from manufacturing. For Case 1, “Manufacturing companies are concentrated on the obsolescence of their products, efficiency of their production processes and on
their next products while service companies’ main concern is market differentiation”.

Case 2 enhances that the manufacturing companies, when compared to service companies, have larger dimensions and resources. They define specific innovation strategies, with dedicated resources, and are more concerned with internationalization issues. Collaboration with manufacturing companies endures longer. Nevertheless, Case 2 CEO points out “The needs of manufacturing and services are quite similar”.

Case 3 claims that manufacturing companies have a larger spectrum of needs than service companies. They need a holistic support, including several areas such as product development, products and processes accreditation, definition and implementation of organizational and marketing strategies. This allows Case 3 to have long-term relationships with manufacturing clients. From this perspective, services are not considered an interesting client, since they only ensure occasional sales, from time to time. Case 3 CEO highlights: “We seek to select industries where we can do effective cross-selling, to sell different products to satisfy diverse needs. And this is not possible in service industry”.

For Case 4, usually, manufacturing companies have a “technological strategy” and define a technological roadmap, namely regarding the sources of technology (internal or external); whereas service industry strategy values non-technological areas.

Regarding technology, Case 4 states that, on one hand, the needs of manufacturing companies are usually quite distinct, as they have a wide range of distinct products. On the other hand, Case 4 CEO points out: “Services do not consider technology so strategically, and their technological needs are mainly related with service delivery and client interface. Moreover, the technological solutions that these companies look for are very identical”.

The four consultancies typically provide services directly to their clients on a one-to-one basis (dyadic relationships), and on a ‘one-to-one-to-one’ basis (triadic relationships). Services such as diagnosis, definition of marketing and organizational strategies, and investment appraisal are provided without the intervention of third parties; the identification of trends and technologies, and the definition of new products can combine the intervention of other entities. Case 2 and Case 3 highlight that consultancies can also be involved in more complex relationships, namely in the case of mobilizing projects, aiming to develop new technologies. In this particular case,
consultancies support the creation and management of innovation networks composed by companies and knowledge centers.

**Business Model: Resources & Partners**

All consultancies agree that their staff and organizational knowledge are their most valuable assets. Partnerships, namely with universities and other knowledge centers, are also considered fundamental to fulfil the consultancies’ mission.

Case 1 created its own research unit that develops knowledge and science, namely through academic partnerships, and it has a training academy. Case 1 managers have a strong liaison to universities, and they combine professional experience with academic experience.

Case 2 establishes partnerships with entities in science and technology system in different markets, namely with knowledge centers and business innovation centers (living labs, incubators, clusters) as well as with public organizations in the areas of innovation support and funding.

Case 3 has a partnership with a global network of internationalization consultancies, which provides business support services in accessing international markets to Case 3’s clients. The consulting work in the target market is carried out by local consultancies. They also have other partnerships with consultancies specialized in venture capital, financial issues accountings, and management software. As regards technological issues, they have strong liaisons with knowledge and research centers.

Case 4 pursues a close connection with knowledge centers, especially the universities. The universities develop state-of-the-art research, and Case 4 aims to diffuse this important knowledge through businesses to boost their innovation processes.

Consultancies value human resources with different academic and professional backgrounds to ensure a high-quality service. The staff recruitment and training is considered critical to increase the organizational knowledge.

The organizational structure of the four consultancies is not aligned with their clients’ industry (services or manufacturing). Collaborators’ expertise in specific industries is welcomed by the consultancies.

Case 1 is internally organized in five main areas along the innovation value-chain,
namely: innovation management, benefits management, business analysis, project management and dynamic capabilities. Each area has its own specific group of collaborators, and there are consultancies with specific industry expertise. Case 1 CEO comments “Our innovation services are industry agnostic, even though it we consider important to create teams with collaborators with specific expertise within the client’s industry”. And he adds “We do not have an organizational structure aligned by clients’ industry; there are only departments with complementary activities, who satisfy clients’ needs independently of the industry”.

The Case 2 team is composed by highly qualified professionals, with valuable knowledge in various fields, namely agro-industrial industry, environment & energies, biotechnology, health, ITC, industrial technology, transport & mobility and tourism. Case 2 CEO comments: “Our team is made of individuals from various nationalities, with different backgrounds, skills and expertise, which collaborate in different offices nationally and internationally, and allow us to maintain a stable presence in strategic locations”. The collaborators are involved in different projects, according to their expertise.

Case 3 is structured in two differentiated teams: there is a team working the R&D, composed mainly by engineers, working at product or process engineering level; there is another team, which integrates collaborators with diverse qualifications, that acts in the areas of business management strategy and development, certifications and project management.

Case 4’s structure is much reduced and it relies, when necessary, on external specialists. The CEO clarifies “We do not consider important to have dedicated teams to manufacturing and services, however, when working with a client, we seek for involving external partners with specific industry expertise”.

**Collaboration Process: Roles & Functions**

All consultancies see themselves as innovation facilitators, providing support to their clients in order to improve their innovation outputs. They identify knowledge gaps, search for information and knowledge, and identify opportunities. Case 3 CEO points out “Consultancies are mostly carriers of knowledge; they are not producers”.

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Two of the consultancies stress its brokering role, acting as a bridge between the users and the sources of knowledge, such as other private companies, universities and other entities from the S&T system, and international organizations. They also consider being carriers of innovation, supporting the knowledge transfer. Case 2 claims to be a unique catalyst for connections among scientific and technological institutions, companies, business associations and clusters, public and private national organizations, and international institutions. Case 3 points out its bridging role between ICT companies and centers of knowledge what, according to its CEO “(...) makes us a unique provider in this area (…)”. Case 3 offers integrated and customized services: defining clients’ needs, identifying possible sources of technologies, and supporting the technology transfer process. Case 3 considers that the universities are important sources of knowledge regarding technological innovation. In the case of small clients, Case 3 acts as a carrier of innovation, identifying the source of knowledge and being responsible for the technology transfer; in the case of medium-large companies, Case 3 just identifies the source of the technology (broker function), following the client’s requirements.

The two other consultancies (Case 1 and Case 4) do not emphasize the brokering role, pointing out that they just act as bridges when specifically requested by clients. Case 4 manager points out that “When it is possible, if the target player makes part of our network, we facilitate the contact”.

The majority of the consultancies’ do not see themselves as sources or co-producers of innovation, as they mainly operate as interfaces, providing information and/or access to relevant players in the market. Case 2 CEO states “We do not produce innovation together with our clients. We mostly work as an interface between private and public companies, universities, research centers and international organizations”. The exception is Case 4, which claims to be a co-producer of innovation, as it works together with the client, searching and defining innovative solutions in partnership. It helps its clients to design and implement (new) services, to (re)adjust organizational structure and to (re)design market strategy. Also, Case 3 points out its role as innovation co-producer specifically in the case of mobilizing projects, focused on technological innovations. The CEO refers: “These projects, which are subsidized by public funding, aim to create new technological products”. Case 3 takes a leading role in these projects, selecting the participating companies and coordinating all the works. In the case of non-
technological innovation, Case 3 CEO claims that the company is an innovation transporter, as “We only apply existing theoretical models, defined by other players”.

The functions developed by the four consultancies are more or less identical (please see Appendix 2). Among the consultancies, Case 4 has the wider spectrum of functions. The functions provided in services and in manufacturing are not perceived as different. All consultancies provide services in the areas of innovation diagnostic, identification of market trends and technology road mapping, as an important part of their corporate mission. The innovation manager of Case 1 states “(...) Our work with a client typically starts by a diagnostic. It is critical to evaluate well all departments’ needs to do a holistic and detailed analysis (...)”.

Only half of the consultancies interviewed support their clients in the definition of new products/services: Case 1 gives support in the general definition of the new offering; Case 4 supports specifically the conceptualization and design of new services, applying tools such as the blueprinting. CEO of Case 4 gives an example “A big retailer contacted us to create a new service, and we sought to involve international specialists to help us defining how to operationalize a service with these characteristics. The retailer benefited from our and our partners state-of-the-art know-how. And it was designed a totally customized solution”. All consultancies work alongside with their clients to define new marketing and organizational strategies. They help customers to enter new markets, providing them marketing information regarding the market environment (customers, competitors, distribution and communication channels, business laws and procedures) as well as analyzing and selecting entry modes. They support their clients in the definition and implementation of new processes and procedures, namely related with quality or innovation topics.

The function of identification of potential partners as well as the partners’ matchmaking is critical for the consultancies that work mostly in technological areas (Case 2 and Case 3). Only one of the consultancies (Case 4) can provide services in area of testing and scaling. The majority of the consultancies are involved in the training of the company’s staff, even though they don’t act at recruitment level. None of the consultancies works directly in the area of innovation protection due to the knowledge requirements, even though they consider it a fundamental issue. Most consultancies also give support in the certification processes of companies according to quality standards. The identification
of investment needs also makes part of the consultancies services, and two of the consultancies prepare applications to UE funding.

**Value-added: Impacts**

All consultancies consider that their main contributions as innovations intermediaries are information and advice, assets that are equally important to service and manufacturing industries. The CEO of Case 4 stresses “We function as a decipherer for businesses, with a helicopter vision. We are aware of what is happening in certain industries in several countries, through studies that are published and that give a reliable picture of reality. We actively collect business data, engaging with other international players. We share information about industries and trends.”

Some consultancies highlight their industry specialization, what makes their contribution more valuable in some industries/areas: Case 3 concentrates on ICT and electronics industries; Case 4 is focused in the fashion and retail industries. Also two consultancies emphasize its expertise in specific knowledge areas: Case 4 considers being a specialist in marketing domain; Case 2 stresses its expertise in the areas of science and technology. Case 2 and Case 3 point out the importance of their information and advice regarding the entrance in new markets. Both companies have dedicated structures or partnerships with local consultancies in target markets that allow them to participate actively in the definition of its clients’ internationalization strategies. Case 2 and Case 3 also highlight their contributions in terms of advice concerning the innovation funding.

Another impact of the consultancies’ support can be the access to other players in the innovation system. Case 2 positions itself as a “unique catalyst for links among companies, scientific and technological institutions, public administration, and other international organizations”. Case 3 points out its added-value in IT industries: “We are an interface, connecting the users and sources of technology”. These two consultancies also mention the importance of their contribution in facilitating the access to funding sources. Case 4 and Case 1 refer that they can facilitate it customers’ access to other players if necessary, even though this is not envisaged as a core service.

Case 1 and Case 4 consider that impacts at executive education level are also of utmost
importance for companies. Case 4 offers tailor made training services as well as workshops of short duration. Due to its linkages to the academic world, Case 4 proposes to offer a superior training service, drawing on state-of-art knowledge and best practices. Case 1 manager refers: “We have our own training academy, highly specialized in management training, with a special focus on business cases, business analysis, project management and high-performance competencies”.

Regarding innovation outputs, Case 3 stresses the importance of its support regarding technological innovation. For this consultancy, the support in non-technological innovation is envisaged as secondary and they just recently introduced services in this area. The CEO clarifies: “We have been working in the non-technological areas more recently. Initially, our team only used to prepare applications for financial support, and then there was an evolution to less technological areas due to customers’ needs”. Case 2 highlights its expertise in technological areas, helping the clients to structure its innovation processes, to identify, design and manage external partners in the areas of technology. Nevertheless, it also provides support regarding the clients’ internationalization strategy. For Case 2 CEO the projects that involve manufacturing clients are “(...) more complex, including several areas of intervention, and endure longer. As a consequence, the results obtained can be more interesting and the value-added is more significant. Services, due to their dimension and absence of innovation strategy, require less involvement from the service provider and, although the results appear faster, they are not so visible”. Case 1 gives support to companies’ technological and non-technological innovation needs. It highlights that manufacturing companies usually look for support in technological areas while service companies have a more enlarged view of innovation. Case 4’s contribution is more centered in non-technological innovation, specifically in the definition of new marketing strategies.

**Value-added: Challenges**

Case 1, Case 2 and Case 3 point out that manufacturing companies, when compared to service companies, are more professional, with clearly identified and verbalized needs and expectations. Projects that involve manufacturing are more challenging, including several areas of intervention, while service projects tend to be less complex.

Furthermore, Case 4 considers that a consultancy when fulfilling the needs of
manufacturing companies “(... needs to deal with an array of technologies and products”. In the case of services, “(... the technology innovation is mainly related with information technologies, and the needs of companies are usually similar, so the solutions are identical. Technologies in services aim essentially to manage the clients’ interaction and the service delivery”.

Case 2 highlights that usually manufacturing companies have an innovation or R&D department, or are taking in consideration to develop one. Their innovation processes are normally more structured, when comparing to service companies, what facilitates the consultant-client collaboration.

Case 4 considers services’ unique characteristics (intangibility, inseparability, heterogeneity and perishability) makes working with services “more demanding” than with manufacturing, since in service innovation “(...) it is necessary to manage more variables, not only the service offering itself but also the clients, employees, as well as the physical environment. The moments of truth, when client and provider meet, ought to be carefully designed and managed. As a result, human resources’ training and clients’ management and education are of utmost importance. Similarly the management of the physical environment surrounding the service provision is a key element in services”.

A synthesis of main empirical findings is provided in Appendix 3.

5. Discussion and conclusions

Compared to manufacturing companies, service companies are more recent consultancy clients. Nevertheless, the value proposition of consultancies is not specifically directed to service industry, as these innovation intermediaries do not customize their offerings and organizational structures to adapt to this type of client. For consultancies, service clients and manufacturing clients are similar, so one may conclude that they have is a broad perspective of innovation. But, in reality, service innovation is analyzed using the same lenses of manufacturing innovation, and innovation is mostly understood as new technologies.

The technological facet of innovation is considered of utmost importance and the
consultancies that are specialized in technological innovation offer services along the innovation value chain, from diagnosis to searching for funding opportunities (namely through the preparation of applications to EU funding). This is not necessarily unexplained, as innovation in manufacturing industry was given focus for more years, in an explicit way, and it was only recently that service industry gained importance and started to focus on innovation. Naturally, and as a consequence, consultancies’ business models have been developed to target manufacturing industry.

Additionally, even though the majority of the consultancies claim that service clients are not distinct from manufacturing clients, in reality they perceived them different to some extent.

Firstly, service companies compared to manufacturing companies are perceived as being smaller, with fewer resources and innovation processes less structured. Secondly, according to the consultancies, services needs are focused in non-technological areas and market issues and the main interlocutor in service companies is typically the marketing department, while manufacturing needs are centered in technologies and the key interlocutor of manufacturing is the R&D or the innovation department. Thirdly, technology is not understood as so strategic in services as in manufacturing, as services technologies seem quite similar, and mostly focused in ICT. Fourthly, manufacturing projects are perceived as more ambitious, sophisticated, integrated along the innovation value chain and more challenging than services projects. Nevertheless, service projects are considered complex due to the services unique characteristics and the large number of variables to manage in a service provision.

Overall, while supporting the innovation processes of their clients, consultancies see themselves as innovation facilitators, offering valuable information and advice to their clients. Consultancies who are specialized in technological areas envisage themselves as innovation brokers or carriers, providing access to sources of ideas and knowledge, yet not being involved in the process of new product development alongside with their clients. They do not feel they have the necessary expertise. The (only) consultancy that was specialized in non-technological innovation highlighted its role as a co-producer of innovation, either when designing new products or when defining new strategies (marketing or organizational ones).

This raises two new research questions.
Firstly, are consultancies mostly innovation facilitators or is their supporting role as innovation intermediaries more complex than anticipated? Contrary to consultancies’ perspective, the evidence points out that consultancies support can go beyond the role of facilitator since they design new strategies alongside with its clients. In the case of new technologies, consultancies act as brokers or carriers, facilitating the processes of technology identification and transfer. They work mostly as interfaces between their clients and the knowledge sources (such as research centers, universities, and other players of the innovation system). But, when they design new internationalization strategies or new organizational processes and procedures together with their clients, they seem to act as co-producers of innovation. Then, even though they can help to identify non-technological innovation and good practices, organizational and marketing innovations are designed alongside with the clients and customized to their needs and characteristics.

Secondly, why do consultancies not envisage themselves as co-creators of innovation? It seems that consultancies when (auto) evaluating their role as innovation intermediaries they only take as reference the technological side of innovation. It may be that the non-technological dimension of their support is not associated with innovation or is less important. Even though they are involved in the design of non-technological innovations, they see themselves as facilitators because they act mostly as brokers for technological innovation. This supports the understanding of innovation has resulted from studies of manufacturing and that service innovation has been neglected (Tether, 2005).

Regarding the framework proposed by Pinto et al. (2016), consultancies highlighted the relevance of the functions of diagnostic and search for information and knowledge. This is explainable since consultancies have been perceived as “company’s physicians”, assisting companies to articulate and define their needs. The functions of conceptualization of new offerings, and of testing and scaling of innovation are not provided by most of the consultancies, which associate innovation with new technologies. Since they are not experts in technology development, they cannot develop, test and scale new technological offerings. Intriguingly however, only one of the consultancies, specialized in non-technological innovation and service industry, offers all those functions. Concerning service offerings, they can support their clients in
the definition of new or improved services, as well as in their testing and scaling. The functions of conceptualization of new marketing and organizational strategies are provided by all consultancies, even though the majority does not envisage them as strategic. This may indicate that consultancies’ functions could be enriched if they enlarge their perspective of the innovation concept to provide customized services to manufacturing and service companies. Non-technological innovation can be a competitive mechanism for service and manufacturing companies.

Because of the type of support provided, all consultancies highlighted that information and advice are their most significant contribution to the innovation processes of companies, independently of their industry (services or manufacturing). Allowing access to other players in the innovation system is considered critical but only by the consultancies specialized in technological areas, who act as bridges between users and sources of knowledge. The brokering function is of paramount importance in the manufacturing industry but seems to lose some relevance in service context. Another area where their contribution is perceived as important is training, since learning helps to configure the right environment for the innovation. The education and training of company’s workers is provided by most consultancies, relying either on dedicated structures, or on online channels or external partners.

Arguably, consultancies roles as innovation intermediaries may go beyond the role of facilitator. In this context, a brokering-based definition of innovation intermediaries (Howells, 2006) might undermine their potential concerning non-technological innovation. Taking in account that service innovation comparatively to manufacturing focuses more strongly on non-technological innovation (Tether, 2005), it seems important to review the concept of innovation intermediary. In this context, the use of a definition of an innovation intermediary that is purpose-based, describing an intermediary as an entity that acts to boost innovation, and that considers an enlarged view of innovation, could be more appropriate.

The research reinforces the importance of a synthesis approach to innovation and of a more enlarged vision of innovation, which includes both technological and non-technological features, extending the innovation intermediaries and service innovation literatures by addressing a literature gap. It tests an existing theoretical framework on the functions of intermediaries in services and provides insights into the business
models, roles and functions of consultancies as innovation intermediaries. Drawing on this study, consultancies can profit from other experiences and adjust their business models to provide more efficient solutions to their clients.

6. Limitations and future research directions

Our research provided insights on consultancies business models, roles and functions in services and manufacturing and contrasted them, supporting the recognition that studies of services have the potential to highlight aspects of the innovation process that have been neglected in manufacturing studies (Drejer, 2004).

Nevertheless, as a qualitative study, this research does not allow generalization of findings. It brings new insights and more detailed information about innovation intermediation performed by consultancies in service industry.

Our sample included only Portuguese consultancies, whose main clients were local companies, and therefore reflects the specificities of the local consultancy market. The analysis of this phenomenon in other realities could certainly enrich our knowledge.

In this study, only one consultancy was specialized in non-technological innovation, and half of its clients are from service industry. All the others have clients from both sectors, and are more focused on technological innovation. A future study including other consultancies, especially those involved in organizational and marketing issues, may be desirable.

The analysis was based on the perspective of the service provider. The findings should be complemented by the viewpoint of the service companies regarding consultancies’ engagement to support their innovation efforts.

The research concluded that the framework proposed by Pinto et al. (2016) is adequate to deal with intermediation in services and in manufacturing, contributing to the synthesis approach of innovation. It may be interesting to validate it empirically, developing an adequate scale for questionnaire-based survey.
7. References


Tether, B. (2005), “Do services innovate (differently)? Insights from the European


**Appendix 1**: Main dimensions of the analysis: Definitions

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Model: Offerings</td>
<td>The offerings/value proposition is about the company’s products/services that meet the needs of its customers. Chesbrough (2005) classifies intermediaries´ offerings in three main areas: information, access, and funding.</td>
</tr>
<tr>
<td>Business Model: Customers</td>
<td>Business customers can be macro-segmented according to their industry (manufacturing or service industry). Different customer segments require specific products, channels, and relationships.</td>
</tr>
<tr>
<td>Business Model: Resources &amp; Partners</td>
<td>Resources can be categorized as human, financial, physical and intellectual. Due to the nature of the intermediaries´ activities, people and knowledge constitute key resources. Key partnerships include the network of suppliers and other partners who help the intermediary creating its value proposition.</td>
</tr>
<tr>
<td>Collaboration process: Roles &amp; Functions</td>
<td>The companies´ activities support the production of its value proposition (Osterwalder and Pigneur, 2010). According to the literature (Howells, 2006; Den Hertog, 2000; Miles et al., 1995), intermediaries can act as facilitators of innovation, carriers, sources or co-producers of innovation. Pinto et al. (2016) made an analysis of the main functions of intermediaries, which comprises 12 functions. This tool provides an enlarged view of innovation, strengthening the synthesis approach.</td>
</tr>
<tr>
<td>Value-added: Impacts</td>
<td>Dalziel and Parjanen (2012) present a general-purpose methodology for measuring the impact of innovation intermediaries. The immediate impact can be analyzed at three levels: information and advice (strategic information and advice, feedback on products and services, and information and advice on selling in new markets, operating in new markets, and on raising capital), business linkages (linkages with service providers), and business services (business planning services and executive education). The intermediate impact</td>
</tr>
</tbody>
</table>
on firm performance can be measured at four levels: revenues (change in revenues, export sales), employment (change in employment, market share - new customers, and investment - financing). The measurement of the immediate impact was found more interesting to our analysis as it is straightforward. The measurement of the intermediate impact was not used in our analysis, since requires isolating the impact of intermediary activities from the other factors that may affect firm’s performance (Dalziel and Parjanen, 2012).

The Oslo Manual (2005) adopts an enlarged view of the innovation activities outputs, considering four types of innovations: product (new or significantly improved good or service), process (new or significantly improved process), marketing (new marketing strategy) and organizational innovations (new organizational strategy).

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value-added: Challenges</td>
<td>The unique nature of services, characterized by perishability, variability, intangibility, and inseparability, affects its management. Services tend to have an orientation to innovation that differs from that of manufacturers: manufacturers tend to place greater emphasis on “hard” strengths and sources of technology, such as R&amp;D, acquisition of equipment, and collaborations with universities and research institutes, whereas services emphasize “soft” advantages and attributes, such as staff skills and inter-organizational cooperation practices (Tether, 2005). The “soft side” of service innovation (non-technological innovations) is easily overlooked by traditional indicators such as R&amp;D expenditures and patents. The “continuous change” mode of innovation (by opposition to the “staircase innovation”) is more common in services than in manufacturing.</td>
</tr>
</tbody>
</table>

Source: Own formulation.

### Appendix 2. Consultancies functions.

<table>
<thead>
<tr>
<th>Functions</th>
<th>Case 1</th>
<th>Case 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Analysis and definition of innovation needs</td>
<td>It provides a holistic innovation diagnosis, including all the company’s departments, to understand the company’s approach to innovation and its needs and expectations.</td>
<td>It offers a great diversity of services to private companies, including the diagnosis of R&amp;D and innovation activities, identification of trends, technology surveillance and the definition of strategic and innovation plans.</td>
</tr>
<tr>
<td>2. Identification of user needs and major trends</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Functions</td>
<td>Case 1</td>
<td>Case 2</td>
</tr>
<tr>
<td>-----------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>3. Signalization of technological options</td>
<td>Complementarily, it does its own market research (analyzes the technological options, market needs and trends, and best practices), relying on its own research unit. It organizes idea generation workshops in the company, to identify and rank the several opportunities. A very small number of opportunities are selected and a strategic plan is defined.</td>
<td></td>
</tr>
<tr>
<td>4. Conceptualizing new service offers</td>
<td>It can assist its clients doing a general definition of the new products/services. It supports the clients’ introduction of new and scientific organizational models, as well as new marketing strategies, to boost the client’s competitiveness.</td>
<td>Not provided.</td>
</tr>
<tr>
<td>5. Conceptualizing new organizational methods</td>
<td></td>
<td>It helps in the process of creation of development of R&amp;D and innovation structures.</td>
</tr>
<tr>
<td>6. Definition of new marketing strategies</td>
<td></td>
<td>It assists companies in the definition and implementation of internationalization strategies (to the markets of Brazil, USA, China, and Southeast Asia).</td>
</tr>
<tr>
<td>7. Identification of potential partners</td>
<td>It can collaborate on the identification and (if necessary) contact with company’s innovation potential partners.</td>
<td>It is specialized in the design and implementation of partnerships between companies, science and technology institutions, and international institutions. It is a privileged interface between private companies, universities and other knowledge centers, and national and international public organizations.</td>
</tr>
<tr>
<td>8. Testing and scaling</td>
<td>Not provided</td>
<td>Not provided.</td>
</tr>
<tr>
<td>9. Selection and training of specialized workforce</td>
<td>It has its own training academy, which provides training in the areas of innovation and business management.</td>
<td>It acts at training level, identifying needs and structuring the training plan. It applies pedagogical tools such as e-Learning.</td>
</tr>
<tr>
<td>Functions</td>
<td>Case 1</td>
<td>Case 2</td>
</tr>
<tr>
<td>-----------------------------------</td>
<td>---------------------------------------------</td>
<td>---------------------------------------------</td>
</tr>
<tr>
<td>10. Protection of innovation assets</td>
<td>Not provided</td>
<td>Not provided.</td>
</tr>
<tr>
<td>11. Accreditation/certification</td>
<td>It supports the implementation and certification of innovation standards and frameworks, such as NP 4457:2007; IMBOK; ISO/TC 279.</td>
<td>It offers support in the implementation and certification of RDI Management Systems according to NP 4457: 2007.</td>
</tr>
<tr>
<td>12. Investment appraisal</td>
<td>It can help the clients to assess their innovation investments, even though it does not work in the areas of funding and preparation of applications to EU funding.</td>
<td>It identifies funding opportunities and prepares and makes the follow-up of funding applications. It promotes companies’ participation in national and international projects of R&amp;D (UE funding).</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Functions</th>
<th>Case 3</th>
<th>Case 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Analysis and definition of innovation needs</td>
<td>It does the company diagnosis, with a special focus in technological areas. Some companies, due to their dimension, do their own diagnosis and look for consulting support to define the possible solutions. It searches for information about market needs and new technologies. It helps clients to define the overall innovation strategy.</td>
<td>Its services include an innovation diagnosis, analysis of emerging trends and customer needs as well technological options, and the definition of the client overall strategy.</td>
</tr>
<tr>
<td>2. Identification of user needs and major trends</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Signalization of technological options</td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Conceptualizing new service offers</td>
<td>Not provided.</td>
<td>It helps clients defining new offerings (core and supplementary services, using tools such as blueprinting and flowcharting). Its support in marketing areas is regarded as very important. The company prepares marketing plans as well as studies and does specific marketing audits.</td>
</tr>
<tr>
<td>5. Conceptualizing new organizational methods</td>
<td>It supports companies in the identification and implementation of new management tools.</td>
<td></td>
</tr>
<tr>
<td>6. Definition of new</td>
<td>The company supports its clients in their</td>
<td></td>
</tr>
<tr>
<td>Functions</td>
<td>Case 3</td>
<td>Case 4</td>
</tr>
<tr>
<td>----------------------------</td>
<td>------------------------------------------------------------------------</td>
<td>------------------------------------------------------------------------</td>
</tr>
<tr>
<td>marketing strategies</td>
<td>internationalization processes, acting mostly at strategic level. Typically, they do not prepare marketing plans.</td>
<td>The support to its clients regarding organizational strategies is done too, usually grouped with the support provided in developing new services and new marketing strategies (complex innovations).</td>
</tr>
<tr>
<td>7. Identification of potential partners</td>
<td>It helps to define and establish (technological) partnerships between companies and entities of the S&amp;T system. In some technological projects that involve an array of players, it acts as architects in the fuzzy front of innovation.</td>
<td>It can also identify possible partners and, in some cases, to provide access. It urges its clients’ to identify their main innovation partners at 4 levels (clients, collaborators, suppliers and investors) and to incorporate their contributions in company’s innovation.</td>
</tr>
<tr>
<td>8. Testing and scaling</td>
<td>Not provided.</td>
<td>It also is prepared to help its clients testing and scaling service innovations.</td>
</tr>
<tr>
<td>9. Selection and training of specialized workforce</td>
<td>Not provided.</td>
<td>The company’s training services, especially in the areas of marketing, are considered strategic.</td>
</tr>
<tr>
<td>10. Protection of innovation assets</td>
<td>Not provided.</td>
<td>Not provided.</td>
</tr>
<tr>
<td>11. Accreditation</td>
<td>It offers services regarding management systems accreditation.</td>
<td>Not provided.</td>
</tr>
<tr>
<td>12. Investment appraisal</td>
<td>It can help in the identification of necessary investments and, often, prepares and manages the applications for EU funds.</td>
<td>Concerning investment appraisal, it helps clients to identify the necessary investments, costs and possible capital sources.</td>
</tr>
</tbody>
</table>

Source: Own formulation.
**Appendix 3.** Empirical perspective over consultancies as innovation intermediaries.

<table>
<thead>
<tr>
<th>Dimension</th>
<th>Characterization</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business Model:</td>
<td>Information and access to other players</td>
<td>The consultancies act mostly at information levels. The provision of access to other players is mostly done by consultancies specialized in technological innovation. The funding level is essentially focused on the elaboration of companies’ applications to EU funded programs.</td>
</tr>
<tr>
<td>Offerings</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Business Model:</td>
<td>Inexistent market segmentation according to industry</td>
<td>Consultancies do not perceive manufacturing companies different from service companies. Manufacturing is a traditional and more important client. Typically, service companies vis-à-vis to manufacturing companies are smaller, with fewer resources, and don’t have a well-defined innovation strategy.</td>
</tr>
<tr>
<td>Customers</td>
<td></td>
<td>In services, marketing department is the main company interface regarding innovation issues; in manufacturing, the interlocutor is the R&amp;D or the production department.</td>
</tr>
<tr>
<td></td>
<td>Services and manufacturing have different dimensions/resources</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Service and manufacturing interlocutors are different</td>
<td>Manufacturing companies are concentrated on production matters, while services focus on market differentiation. Manufacturing innovation needs are more clearly defined, comparing to services. Typically, only manufacturing companies have a “technological strategy”, and their spectra of technological innovations can be very diverse.</td>
</tr>
<tr>
<td></td>
<td>Service and manufacturing needs are distinct</td>
<td>Manufacturing needs a more holistic support (technological and non-technological), allowing cross-selling. Service industry relies largely on non-technological innovation, even though technological innovation can be a concern.</td>
</tr>
<tr>
<td>Dimension</td>
<td>Characterization</td>
<td>Comments</td>
</tr>
<tr>
<td>-----------</td>
<td>------------------</td>
<td>----------</td>
</tr>
<tr>
<td></td>
<td>Relationships with manufacturing can last longer</td>
<td>The relation with manufacturing companies can endure longer, due to the dimension/complexity of these companies. Normally, they require a wide range of the consultancies’ services.</td>
</tr>
<tr>
<td></td>
<td>Dyadic and triadic relationships</td>
<td>Typically, consultancies provide services directly to their clients (in the case of non-technological innovations) or involve a third party or more players (in the case of technological innovations). Mobilizing projects usually involve more complex relationships.</td>
</tr>
<tr>
<td>Business Model: Resources &amp; Partners</td>
<td>Importance of partnerships</td>
<td>The universities and other knowledge centers are considered fundamental sources of scientific knowledge. Partnerships with other consultancies are also important to ensure a better quality service.</td>
</tr>
<tr>
<td></td>
<td>Staff is a critical resource</td>
<td>Consultancies with different academic and professional backgrounds are strategic assets.</td>
</tr>
<tr>
<td></td>
<td>Organizational structure is not aligned by client’s industry</td>
<td>Innovation services are industry agnostic, even though collaborators with specific industry expertise are very valuable.</td>
</tr>
<tr>
<td>Collaboration Process: Role &amp; Functions</td>
<td>Innovation facilitators and carriers</td>
<td>All consultancies work to identify knowledge gaps and search for information and knowledge to facilitate clients’ innovation. Two of the consultancies, specialized in technological issues, stress the importance of its brokering role, where they act proactively as bridges between the users and the sources of technology. They also support the technology transfer, acting as carriers.</td>
</tr>
<tr>
<td></td>
<td>Innovation co-producers</td>
<td>The co-production role is emphasized by one of the consultancies, specialized in marketing areas. The design of new offerings and of new marketing strategies involves co-production.</td>
</tr>
<tr>
<td>Dimension</td>
<td>Characterization</td>
<td>Comments</td>
</tr>
<tr>
<td>----------------------------</td>
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<td>-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Similar functions</td>
<td></td>
<td>In the case of projects aiming to develop state-of-art technology and involving several actors, the consultant envisages itself as a co-producer (Agogué, 2013). Consultant’s main functions as innovation intermediaries are more or less similar. The functions provided in services and in manufacturing industries are not perceived as different.</td>
</tr>
<tr>
<td>Focus on diagnostic,</td>
<td></td>
<td>The most important functions are related with the company’s diagnostic, the search for information, and the definition of the clients’ overall strategy. The conceptualization of new services offerings is not the domain of consultancies specialized in technological innovation. None of the consultancies provides support in the protection of innovation assets. The testing and scaling is only offered by one consultancy and it is specifically related with service offerings. Consultancies are less present in the innovation implementation phase, due to the specificities of the tasks.</td>
</tr>
<tr>
<td>identification of user</td>
<td></td>
<td></td>
</tr>
<tr>
<td>needs/trends and technological options, and strategy definition</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Specificities of support</td>
<td></td>
<td>The support given by the majority of the consultancies in terms of marketing strategy is much related with the internationalization process of the clients. The assistance regarding organizational innovation is mostly concentrated in the definition of internal innovation structures and procedures as well as the implementation of quality standards in several areas. The provision of training services, in the areas of innovation, marketing and business management, is considered of utmost importance. It is perceived as a trigger of future innovations.</td>
</tr>
<tr>
<td>at non-technological level</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Value-added: Impacts</td>
<td>Importance of information/advice</td>
<td>The immediate results are mostly information and advice, assets that are equally important to service and manufacturing industries.</td>
</tr>
<tr>
<td>Dimension</td>
<td>Characterization</td>
<td>Comments</td>
</tr>
<tr>
<td>------------------------------------------</td>
<td>----------------------------------------------------------------------------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Priority of technological innovation and manufacturing projects</td>
<td></td>
<td>Consultancies are warehouses of knowledge (scientific knowledge, best practices), with guidance function. The access to other players (business linkages) is two-fold: access to sources of knowledge and access to funding sources. The access to knowledge sources is mostly associated with technological innovation and manufacturing companies. Clients want access to possible technology suppliers (universities, research centers, …). The provision of business services (executive education) is mostly connected with non-technological innovation. Training increases organizational knowledge, facilitating innovation. The support in technological areas is considered of utmost importance by two consultancies, focused. The support in non-technological areas is seen as a complement and a way to potentiate the support given in technological areas. The services provided regarding non-technological innovations are considered in a second level, less interesting as a source of profit, having a punctual nature and always related to the main support provided regarding technological issues. As a consequence, manufacturing projects comparing to service projects are more complex, of greater dimension, usually apply to external funding, and the results are more impressive and tangible.</td>
</tr>
<tr>
<td>Value-added: Challenges</td>
<td>Consultant-client interaction in manufacturing is easier</td>
<td>Manufacturing companies, due to its dimension and dedicated resources to innovation, have well-defined expectations, and seek for a precise and focused intervention, while service companies are constrained by their dimension/size. Manufacturing companies deal with an array of technologies and products. Services technological innovation is mainly related with information technologies, and the...</td>
</tr>
<tr>
<td></td>
<td>Manufacturing projects are more complex</td>
<td></td>
</tr>
<tr>
<td>Dimension</td>
<td>Characterization</td>
<td>Comments</td>
</tr>
<tr>
<td>-----------</td>
<td>------------------</td>
<td>----------</td>
</tr>
<tr>
<td></td>
<td>Service innovation is more challenging to deal with</td>
<td>solutions adopted by companies are quite similar.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Innovation in services, due to services peculiar characteristics, can be more difficult to manage, measure and protect as it involves more variables/players (clients, employees, suppliers) and it is intangible.</td>
</tr>
</tbody>
</table>

Source: Own formulation.
ESSAY 3


Keywords: Innovation intermediaries, service innovation, open innovation, non-technological innovation

Abstract:

This paper seeks to make a particular contribution in what are the roles of consultancies as key innovation intermediaries in service industry. In line with previous literature, the research purposes to test the application of Pinto et al. (2016) framework within service companies, triangulating the findings of Pinto et al. (2017). Four in-depth case studies of service companies were developed, resulting on detailed descriptions of the phenomenon using constructs to order the data and relate to earlier literature. Key findings highlight changes in motivations for consultancy engagement, from an initial focus on knowledge (output) to a focus on methodology (process). The adequacy of the framework proposed by Pinto et al. (2016) is confirmed, highlighting the role of consultancies as innovation co-production partners in service industry. A new possible function of intermediaries arises from this study, related with “evaluation of innovation outcomes”. In terms of results, even though consultancies support their clients in the innovation conceptualization, acting on both technological and non-technological facet of the innovation, their most valued contribution is preparing companies to innovate.

1. Introduction

Innovating is complex, and partnerships with other players in the innovation system are critical to boost companies’ innovation activities. Innovation intermediaries play a critical role in an innovation system, helping to reinforce the innovative capacity of
companies, industries, regions and nations (Dalziel, 2010). They facilitate the access to external knowledge of other players in the innovation system, providing information, access and funding (Chesbrough, 2006).

There is a growing literature investigating the roles of innovation intermediaries in manufacturing industry, focused on technological facet of innovation. Yet, in service industry context, this topic is still under explored. Services are of paramount importance in world economies and there is growing literature investigating service innovation. Even though there is not a unique service innovation mode, service companies innovate somewhat differently from manufacturers, focusing on the soft side of innovation and on non-technological innovations (Castro et al., 2011; Tether, 2005). Furthermore, the studies of service innovation have the potential of highlighting features of innovation that have been largely ignored in manufacturing studies (Castro et al., 2011; Drejer, 2004), contributing to a synthesis approach.

To address the literature gap, Pinto et al. (2016) proposed a conceptual tool for analyzing the role of intermediaries within service innovation, highlighting the importance of consultancies and universities as innovation intermediaries in the service industry. This tool presents an enlarged view of innovation (technological and non-technological). In a subsequent empirical study, Pinto et al. (2017) confirmed the applicability of the framework within consultancies, using a case study approach.

In line with those studies and to complement and triangulate those findings, our research aims to test the application of Pinto et al. (2016) framework within service companies. Drawing on a multiple case study approach, the study intends to answer the following questions:

1. Why service companies engage consultancies (motivations & expectations)?
2. How do consultancies support the innovation processes of service industry (types of projects, models of engagement, roles & functions of consultancies)?
3. How do innovation intermediaries add value to the innovation process of service industry (main contributions; outputs; challenges)?

The paper is organized as follows. Section two includes a brief review of existing literature on innovation intermediaries, with a specific focus on consultants, and on
service innovation. Section three is dedicated to methodological issues. In the fourth section, findings are analyzed and discussed. Section five concludes and section six presents the study limitations and future research propositions.

2. Innovation Intermediaries

*Importance and functions*

Innovation intermediaries are organizations or groups within organizations that work to enable innovation (Dalziel, 2010). They can provide an array of functions, namely: Foresight and diagnostics; Scanning and information processing; Knowledge processing and combination/recombination; Gate keeping and brokering; Testing and validation; Accreditation; Validation and regulation; Protecting the results; Commercialization; and Evaluation of outcomes (Howells, 2006).

There are a growing number of studies on innovation intermediaries, with a pragmatic focus. The intermediaries’ functions are extensively analyzed, yet, the emphasis is on their contribution concerning technological innovation. Although a key function of intermediaries is brokering the technology transfer process, the literature addresses other functions, namely at diagnostic level, definition of business and innovation strategies, knowledge processing, standard setting, innovation testing and protection (Howells, 2006).

The innovation intermediaries’ literature mostly focuses on the technological side of innovation, often discussing the processes of technology acquisition and transfer, on manufacturing context. This bias towards technological innovations limits its application in service industry (Pinto et al., 2016). Service innovation comprehends a lot more than a change in the characteristics of the product itself (Den Hertog et al., 2010), and favors the introduction of organizational and marketing innovations. Besides technological capabilities, human and organizational capabilities are also central for delivering services (Den Hertog et al., 2010). The brokering function of intermediaries arguably loses significance in services since the introduction of non-technological innovations (example, a new distribution or pricing system, a new promotion strategy) do not necessarily involve the intervention of third parties and non-technological
innovations are usually developed in close interaction with the service provider, in a co/production process.

As service innovation demands for a more enlarged approach to innovation, Pinto et al. (2016) proposed a new tool for analyzing innovation intermediaries’ functions in service industry, which encompasses 12 functions of intermediaries (see Table 1).

<table>
<thead>
<tr>
<th>Function</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Analysis and definition of innovation needs</td>
</tr>
<tr>
<td>2. Identification of user needs and major trends</td>
</tr>
<tr>
<td>3. Signalization of technological options</td>
</tr>
<tr>
<td>4. Conceptualization of new service offerings</td>
</tr>
<tr>
<td>5. Conceptualization of new organizational methods</td>
</tr>
<tr>
<td>6. Conceptualization of new marketing strategies</td>
</tr>
<tr>
<td>7. Identification of potential partners</td>
</tr>
<tr>
<td>8. Testing and scaling</td>
</tr>
<tr>
<td>9. Selection and training of specialized workforce</td>
</tr>
<tr>
<td>10. Protection of innovation assets</td>
</tr>
<tr>
<td>11. Accreditation/certification</td>
</tr>
<tr>
<td>12. Investment appraisal</td>
</tr>
</tbody>
</table>

Source: Pinto et al. (2016)

This framework considers new and renewed functions of intermediaries, due to its larger understanding of the concept innovation.

Consultancies

There is a large and increasing number and forms of intermediaries (Dalziel, 2010; Howells, 2006), what makes difficult to enumerate all of them. Consultancies integrate this group, and are a privileged service industry partner due to their ease of access, flexibility and diversity of services (Tether and Tajar, 2008; Pinto et al., 2016). Tether and Tajar (2008) highlight that service companies are more likely than manufacturers to involve consultants than other specialist knowledge providers, while their links to public science-base are weaker. Sánchez-González (2014) concludes that cooperation with consultancies favors the development of both organizational and marketing innovations in service companies.

Consultancies are part of KIBS - Knowledge-Intensive Business Services, helping other companies to be innovative (Lemus-Aguilar et al., 2015). KIBS industries are
private companies or organizations, relying heavily on professional knowledge i.e. knowledge or expertise related to a specific (technical) discipline or (technical) functional domain, and supplying intermediate products and services that are knowledge-based (Den Hertog, 2000). KIBS are seen to act as facilitators - when supporting a client in its innovation process, but not creating nor transferring innovation from others; carriers - when transferring existing innovations; sources – when triggering and developing innovations in the client; and also as co-producers of innovation - working closely and interactively with the client, in a two-way learning process (Muller and Doloreux, 2009; Winch and Courtney, 2007; Den Hertog, 2000; Miles et al., 1995; Den Hertog and Bilderbeek, 1998). According to Muller and Doloreux (2009), there were changes in how scholars perceive and analyze the knowledge content of KIBS activities since. KIBS are perceived not only as knowledge suppliers but as knowledge co-producers since the appropriation of knowledge by KIBS clients is the result of a re-engineering process performed by KIBS in cooperation with the clients.

3. Methodology

The research aims to understand how consultancies support service companies’ innovations processes based on the perspectives of the service companies. It is adopted a multiple case study design which allows to analyze the phenomenon in its natural context and from the perspective of the participants involved in the phenomenon (Yin, 2003; Gall et al., 1996). This research design allows testing a framework that assesses innovation intermediaries’ functions in service industry (Pinto et al., 2016) and, simultaneously, to provide a detailed description of the phenomenon in analysis.

Four in-depth case studies of service companies were developed, resulting on detailed descriptions of the innovation intermediation in services phenomenon using constructs to order the data and relate to earlier literature.

It was selected organizations with prior and considerable experience in consultancy engagement, belonging to private and public spheres, and operating in different and important service industries, to include a diverse set of organizational contexts (see Table 2). The names of the companies have been withheld due to confidentiality reasons.
Table 2 Cases overview

<p>| | | | | |</p>
<table>
<thead>
<tr>
<th></th>
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<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td></td>
<td>Headquarters</td>
<td>Industry</td>
<td>Number of</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>workers</td>
</tr>
<tr>
<td>Case 1</td>
<td>Europe</td>
<td>Insurance</td>
<td>200</td>
<td></td>
</tr>
<tr>
<td>Case 2</td>
<td>Europe</td>
<td>Public Administration (General activities)</td>
<td>1,500</td>
<td></td>
</tr>
<tr>
<td>Case 3</td>
<td>Asia</td>
<td>Public Administration (Tourism activities)</td>
<td>400</td>
<td></td>
</tr>
<tr>
<td>Case 4</td>
<td>Asia</td>
<td>Information and Communication</td>
<td>1,100</td>
<td></td>
</tr>
</tbody>
</table>

Source: Own formulation.

Previously to data collection, researchers had a preliminary briefing with a key informant nominated by each company, to understand companies' models of engagement with consultants. They were informed that normally each company has different projects with consultants, and each project is lead and managed by a specific department or division. Consequently, head of departments or divisions were purposefully selected based on their involvement in the companies' projects with consultancies and due to their broader perspective over company's projects and challenges (see Table 3). Main data sources are interviews with heads of departments or divisions of different companies and top management (executive directors and vice-presidents). In Case 1, the director of Corporate Communications & PR is also one of the executive directors of the company, what allowed a richer testimony. In Case 2, the head of Procurement and Financing Management has a transversal knowledge regarding the usage of consultancies by the other departments, since his department is responsible for the organization's procurement. In Case 3, it was interviewed the company's former executive director due to his extensive experience in the industry. The interviewee managed the company for more than two decades and still works in public administration, in tourism industry. Also in Case 3, the testimony of the senior
executive focuses on the activities of two departments (department of organizational planning & development; department of events). In Case 4, the interviews to VPs provided a broader picture of the company engagements with consultants, not restricted to their departments.

Table 3 Data collection overview

<table>
<thead>
<tr>
<th>Company</th>
<th>Industry</th>
<th>Departments</th>
<th>Collaborators interviewed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Case 1</td>
<td>Insurance</td>
<td>Information Technologies – Business Applications (BA)</td>
<td>Head of BA</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Finance – Accounting &amp; Treasury (AT)</td>
<td>Head of AT</td>
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<td></td>
<td></td>
<td>Digital</td>
<td>Director</td>
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<tr>
<td></td>
<td></td>
<td>Corporate Communications &amp; PR</td>
<td>Director/ Executive Director</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Human Resources</td>
<td>Director</td>
</tr>
<tr>
<td>Case 2</td>
<td>Public Administration (General activities)</td>
<td>Finance - Public Procurement &amp; Financing Management (PP&amp;FM)</td>
<td>Head of PP&amp;FM</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Urban Planning &amp; Development Promotion</td>
<td>Director</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Municipal Works - Studies &amp; Projects (S&amp;P)</td>
<td>Head of S&amp;P</td>
</tr>
<tr>
<td>Case 3</td>
<td>Public Administration (Tourism activities)</td>
<td>Organizational Planning and Development</td>
<td>Senior Executive (former) Executive Director</td>
</tr>
</tbody>
</table>
Data collection took place between July of 2017 and January of 2018. It was performed 13 interviews. The interviews were of about 60 to 90 minutes each, and followed semi-structured, open-ended guidelines. Due to time constraints, Case 1 director of human resources requested to present his testimony by writing. It was prepared a questionnaire drawing on the interview guide. Interviews were oriented around three main blocks: Motivations & Expectations, Collaboration Process and Results (see Fig.1).

### Figure 1 Components analyzed in the interviews.

Interviewees were asked to identify major projects developed with consultancies and, with reference to those, to describe their motivations and requirements when engaging with consultancies; to characterize the collaboration process (projects characteristics such as duration, stages, teams involved from both parties, main roles and functions provided by consultancies), and to evaluate the results (consultancies’ contributions and difficulties felt along the process). All interviews were recorded and transcribed verbatim.
Other sources of evidence were explored such as internal documents provided by companies, information from websites and media (press and social media) as well as direct observation.

Data analysis was performed using qualitative content analysis, which allows the analysis of texts within their context of communication, following analytical rules and procedures, without rash quantification (Mayring, 2000). which allows triangulation to occur on two levels: by integrating different data sources; by applying a method of data analysis that has not been mainly developed for case study research (Kohlbacher, 2006). The categories and sub-categories were developed deductively from the research questions and literature review and some new categories sub-categories emerged inductively from the data analysis.

Firstly, the four cases were analyzed separately and then compared, looking for similarities and differences.

4. Case findings

Cases presentation

Case 1
The company was founded over 30 years ago, being part of a multinational group specializing in insurance and risk consulting. It is one of few brokers that work with Lloyd's of London worldwide, having direct access to the world’s largest specialized insurance market. The group has direct presence in European, African and South America markets.

Key projects with consultancies

- Internal management platform integrating insurance information from customers and other partners
- Web portal for customer’s online management of insurance portfolio
- Introduction of a new ERP system (financial areas)
- Project focused on the creation of a positive corporate culture and sense of belonging
• Training project focused on managing media interlocutors
• Ongoing support (communication issues and events)
• Ongoing support (legislation, human resources matters)
• Training (several areas)

Case 2

The organization is the municipal council of a county and its mission is to define and execute policies to defend the interests and satisfy the needs of the local population. It aims to promote the development of the municipality in all areas of life, such as health, education, social action and housing, environment and basic sanitation, land use and urban planning, transport and communications, public supply, sport and culture, consumer protection and civil protection.

Key projects with consultancies

• Economic viability studies (to integrate municipal projects eligible for external funding)
• Urban planning studies (eligible for external funding)
• Technical support (such as the support regarding effective communication, through design, in architectural projects; engineering and legal advice)
• Training

Case 3

The organization is a public entity responsible for implementing, analyzing and assisting in formulating market tourism policies. It promotes local tourism products, playing a significant role in fostering the improvement and diversification of tourism products as well as promoting, coordinating or facilitating a variety of tourism projects and mega events. To fulfil its mission, it has representatives and delegations worldwide that tailor make promotion schemes and activities according to each market’s needs. As the supervising entity for the local tourism industry, it ensures the sector’s operations are under legal framework by licensing and inspecting the establishments, venues and
activities. Additionally, it promotes training opportunities for local sectors through collaboration with training institutes and tourism entities.

*Key projects with consultancies*

- Tourism industry development master plan
- Implementation of local tourism events
- Organizational development studies (preparatory studies about the creation of new entities, new models of partnerships)
- Events’ impact studies
- Market studies

*Case 4*

The company is a leading telecom service provider, offering mobile, fixed telephony, fiber broadband and integrated telecom solutions, in consumer and business markets. In activity for more than 35 years, it employs around 1,100 staff. It has introduced in its local market several major service innovations, such as the first mobile prepaid service, first multi-number SIM service, first 3G service, first and most extensive online service portal.

*Key projects with consultancies*

- Scenarios’ analysis and strategy definition
- Integrated billing system
- Customer satisfaction surveys
- Tender bids preparation
- Training

*Results*

Drawing on a hybrid approach, the research started with predefined categories and sub-categories, intended to help guide analysis, and some new categories and sub-categories emerged from the data. Table 4 depicts data’s categories and sub-categories and the companies in which they have been observed.
<table>
<thead>
<tr>
<th>Category</th>
<th>Sub-category</th>
<th>Case 1</th>
<th>Case 2</th>
<th>Case 3</th>
<th>Case 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Motivations &amp; Needs</td>
<td>Information/advice</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
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<td></td>
<td>Access</td>
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<td>x</td>
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<td>Funding</td>
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<td></td>
<td>Methodology</td>
<td>x</td>
<td>x</td>
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<td></td>
<td>External voice</td>
<td>x</td>
<td>x</td>
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<td>Expectations &amp; Selection Criteria</td>
<td>Knowledge</td>
<td>x</td>
<td>x</td>
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<td></td>
<td>Experience</td>
<td>x</td>
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<td></td>
<td>Reputation</td>
<td>x</td>
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<td></td>
<td>Creativity</td>
<td>x</td>
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<td></td>
<td>Diagnostic skills</td>
<td>x</td>
<td>x</td>
<td>x</td>
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<td>Project management skills</td>
<td>x</td>
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<td></td>
<td>Problem solving skills</td>
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<td>x</td>
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<td>Type of projects</td>
<td>Strategic</td>
<td>x</td>
<td>x</td>
<td>x</td>
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<tr>
<td></td>
<td>Operational</td>
<td>x</td>
<td>x</td>
<td>x</td>
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<tr>
<td>Model of engagement</td>
<td>Dyadic</td>
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<td>Triadic or multiple partners</td>
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<td>x</td>
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<td>Consultancy roles</td>
<td>Facilitators of innovation</td>
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<td>x</td>
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<tr>
<td></td>
<td>Carriers of innovation</td>
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<td></td>
<td>Sources of innovation</td>
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<tr>
<td></td>
<td>Co-producers of innovation</td>
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<td>x</td>
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<td>Consultancy functions</td>
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<td>x</td>
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<tr>
<td></td>
<td>Identification of user needs and major trends</td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
</tr>
<tr>
<td></td>
<td>Signalization of technological options</td>
<td>x</td>
<td></td>
<td></td>
<td>x</td>
</tr>
</tbody>
</table>
## Results

<table>
<thead>
<tr>
<th>Category</th>
<th>Sub-category</th>
<th>Case 1</th>
<th>Case 2</th>
<th>Case 3</th>
<th>Case 4</th>
</tr>
</thead>
<tbody>
<tr>
<td>Conceptualization of new service offerings</td>
<td></td>
<td>x</td>
<td>x</td>
<td>x</td>
<td>x</td>
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<tr>
<td>Conceptualization of new organizational methods</td>
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<td>x</td>
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<td>x</td>
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<tr>
<td>Conceptualization of new marketing strategies</td>
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<tr>
<td>Identification of potential partners</td>
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<td></td>
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<td>x</td>
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<tr>
<td>Testing and scaling</td>
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<td>x</td>
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<tr>
<td>Selection and training of specialized workforce</td>
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<td>x</td>
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<td>x</td>
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<tr>
<td>Protection of innovation assets</td>
<td></td>
<td>x</td>
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<tr>
<td>Accreditation/certification</td>
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<tr>
<td>Investment appraisal</td>
<td></td>
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<td>x</td>
</tr>
<tr>
<td>Evaluation of innovation outcomes</td>
<td></td>
<td></td>
<td></td>
<td>x</td>
<td>x</td>
</tr>
</tbody>
</table>

**Main contributions (innovation preparation)**

- Case 1: x
- Case 2: x
- Case 3: x
- Case 4: x

**Main outputs (improved solutions; some radical innovations)**

- Case 1: x
- Case 2: x
- Case 3: x
- Case 4: x

**Deficit areas (market and industry knowledge, interactivity)**

- Case 1: x
- Case 2: x
- Case 3: x
- Case 4: x

**Key critical factor (deliverables)**

- Case 1: x
- Case 2: x
- Case 3: x
- Case 4: x

Source: Own formulation.

### Motivations & Needs

As innovation becomes a more open process, innovation intermediaries arise, providing information, access to other players in the innovation system as well as funding (Chesbrough, 2006). All companies reported engaging consultants because they needed external specialized knowledge or advice, as illustrated in the following quotes:

“This was a major step. We did not have at the time, and we still not have, expertise regarding ERP, so we had to engage consultancies to help us developing our own system.” (Case 1 - Head of A&T)

“We need to outsource consultancies to do some technical tasks when we do not have the right competence within the company (...) Technological issues are gaining
more relevance in innovation... and an insurance broker is not a start-up, which develops new technologies.” (Case 1 – Digital Director)

“I was given the challenge of developing the local tourism industry, particularly through event creation, and I felt the need to engage consultancies, as specialized entities that provided us advice (...) The more unique the event is, the higher is the need for qualified staff. And we were not ready... we were aware that if we would have wanted to innovate, we needed specialized advice.” (Case 3 – (former) Executive Director)

Additionally, the access to other players was evaluated as important by Case 3 when implementing new types of events:

“Consultancies supported us in the organization of new events and helped us to get in touch with everyone that mattered. It was a lot of work and we were so small... The value of the consultancy to the development of such a project is enormous, because it allows saving time and money and it is very effective” (Case 3 – (former) Executive Director)

“When organizing a specific type of event (...) the consultancy he ensures all contacts with external partners from other countries (...)” (Case 3 - Senior Executive)

Case 2 Head of S&P rejected partially that point of view:

“Consultancies provide us advice which can open new horizons to us and indicate shortcuts. But they usually do not establish bridges between us and other partners. That can happen few times, by instance, when the consultancy has is very well-recognized in the market in which he operates and, as natural process, the contacts are facilitated.”

Also, Case 4 reported that they did not engage consultancies to get access to other players, even though consultancies can act as important bridges in technological projects, when implementing of a new technology developed by a technological supplier.

Consultancies' support was found of major importance by Case 2, due to their role in preparing organizational applications for external funding.

Furthermore, service organizations reported that their motivations have changed in some way along the life cycle of the relationship and that, nowadays, go beyond information and advice, focusing on methodology:
“I think that in initial stages we were very much about extracting information and understanding from the consultancy. (...) We initially looked for answers: what should we do. But then you wanted to get to plans and implementation and the questions were: how can we do this? how can we avoid this? Definitely, nowadays we look for methodology. And there is a thin line: consultants will guide you but they will not give you the tool box” (Case 4 - VP of Strategy and Business Performance)

“We have learnt a lot from them and based on their survey skills, and on how they ask those questions, we built our own. We learn from them on how they do the data analysis, on how they collect the data (...) and now we are doing more than them (...) because they don’t have our IT data, they don’t have our network data, so they cannot do more" (Case 4 - Director of Business Quality Assurance)

"Often we have the feeling that we are doing all the work. What the consultancy does is to give some structure to our work, creating some focus, providing methodology" (Case 4 - VP Legal & Regulatory)

“More important than bringing other experiences, consultancies bring methodology. Many times, what is missing in the company is the methodology to manage different topics. And often methodologies can help to share some vision at the executive level, a way to manage doubts, problems, opportunities, risks, ... Often what is lacking is methodology and the consultant can bring methodology to greater effectiveness.” Case 1 - Digital Director

"They have given us guidance, recommendations, and inputs about which information we should collect, and how to adjust our documents to be well succeeded in our application to external funding" (Case 2 - Director of Urban Planning)

Companies also reported other motivations related with the need to have an external independent voice over companies' activities. This external voice provides assurance in decision making, contributing to service quality, and, simultaneously, inspires (market) trust. Such view is illustrated in the following quotes:

"(...) you have to be a third party to appreciate things. It's like external audits. I have to have the comfort of an independent voice on a certain matter" (Case 4 - VP Legal and Regulatory).
“It is such a big company, and we need a third-party voice. If we just put out our own results, nobody will trust them (...) But, if it is coming out from a third party, that is different” (Case 4 - Director of Business Quality Assurance)

"it is important to have international experts to support us, they provide credibility"
(Case 3 - Senior Executive)

**Expectations & Selection Criteria**

Consultancies are expected to support their clients at various levels: diagnosing and articulating needs, transferring specialized expert knowledge, experience sharing, and acting as middlemen (Bessant and Rush, 1995). All service companies highlighted that their expectations when engaging consultancies were focused on the service provider know-how. The provider knowledge is perceived from different perspectives: technical knowledge but also industry and market knowledge. Furthermore, companies looked up for consultancies well-known worldwide, with an international dimension, that supply information they could trust and gave confidence to the market. The following quotes illustrate these expectations:

“It is important that they know about and industry, and in fact they have that knowledge, but the biggest input they give us is their technical knowledge, their specific expertise” (Case 1 - Executive Director)

“They gave us the report of the knowledge and experiences that they acquire about other places and that they consider useful to us. It was a mixture, on the one hand an attempt to lead us, not let us get off the rails, but, at the same time, to add information and knowledge to the enrichment of the proposal” (Case 2 - Director of Urban Planning)

“The work we do with consultancies is a very technical and specific work, which we cannot do internally since we are not technicians in this area (...) We selected a company with international experience, even though they were not profoundly involved in the tourism industry and they did not know well our market (...) but here we do not have international consultancies, large consultancies” (Case 3 - Senior Executive)

“Our market representatives worked as consultancies and they were selected due to their industry knowledge, social networks and reputation. They were respected in the
Additionally, service companies remarked that consultancies should be sources of new ideas and insights and should combine strong diagnostic, project management and problem-solving skills. The following comments highlight this:

“It helps us to make diagnoses and confirm and identifies new approaches, new directions, new ideas. It identifies opportunities, and brings a distinct perspective, external, bringing to the arena less usual doubts. We are always working together within the company, we have a chip, a software to imagine, and it often makes sense to work with an outside consultant who poses new, and sometimes interesting, doubts, from a unique perspective” (Case 1 - Digital Director)

“They were actually adding some value, they asked us why we would not do it in a certain way; they were asking us some questions to clarify our line of thinking, and those enquiries led us to question some of our options. (Case 2 - Director of Urban Planning)

“We have to look at innovation from different angles. Innovation could be doing the same thing but differently. I do think that is one of the areas where consultancies are. They are actually a very good source of rethinking things. Tendency on the operational side is for repetitiveness, process. It is always worthwhile to sit back and listen to other people. But it may be not how you do it but it may spark creative thought on yourself.” (Case 4 - VP of Strategy and Business Performance)

"The consultancy does not tell us what we already know. What it will do is to assemble the organizational knowledge that we already have and then apply it to a particular project” (Case 4 - VP Legal & Regulatory)

**Type of projects**

According to the testimonies, the collaboration processes between the consultancy and the service company can be typified in strategical projects and tactical projects. Strategical projects are long-term projects, related with the exploration of new opportunities and ideas, mostly focused on definition of strategies and actions, and that impact significantly organization’s activities; tactical projects are short term-projects, mainly related with the implementation of specific actions or events, aiming to cope
with companies’ lack of resources and expertise, and where deliverables are clearly identified a priori. The following comments convey this idea:

“The company had to present a comprehensive report with the analysis of the current situation as well as the definition of strategies, action plans on the short, medium and long term” (Case 3 - Senior Executive)

“The consultancy was focused both on strategy and project implementation, probably 50/50. At the beginning (consultancies work) was mostly about operations and network building. But, the political situation obviously changed (...) we used to operate on a concession basis and there was always the possibility (relatively small) that your operations would cease due to government review, and that had to be part of the planning. There was a greater amount of scenario planning in all bases because we were dealing with a license ” (Case 4 - VP of Strategy and Business Performance)

“Several consultancies advised us on how to create and manage specific tourism events. When we thought that it was interesting to create a new type of festival (...) we invited the consultancy that was responsible for the implementation of the best world-festival of that type, to come and help us” (Case 3 – (former) Executive Director)

"We need consultancies to outsource some technical tasks when we do not have the right competence within the company. For example, regarding ESO (Engine Search Optimization) marketing, to do the optimization of keywords and development of some landing pages” (Case 1 - Digital Director)

“In my division, there is not much consulting as a definition of a strategy because the inputs we receive (from consultancies) are already very concrete, focused on an object (...) but while I was working in planning department, I found that much of this consulting took place “previously” and was not about an object, but on a perspective of evolution of the city, a prospect of development that is intended.” (Case 2 - Head of S&P)

The importance of consultancies in the implementation of strategical projects in technological areas was highlighted by some of the companies:

“At a given time point, due to our size and geographical presence, we decided it was time to have our own software to manage our clients’ portfolio that met our needs and was house branded. We started a project with a foreign consultant to create an
exclusive management platform which integrates all insurance information from our customers, enabling efficient and effective management processes. (...), we also had a similar technological project, we wanted to create a web portal for online management and consultation of all insurance exclusive to our customers.” (Case 1 - Head of BA)

"This is a big project and it lasts for a few years already. We are replacing all our four billing systems (...) putting everything into one billing system" (Case 4 - Director of Business Quality Assurance)

“(It) will benefit us with significant cost efficiencies, even more important is that it will enable us to deliver a greatly enhanced customer experience, giving our subscribers greater choice and control through accelerated introduction of innovative services and applications, cross-product synergies, unified billing for personalized plans and creative bundling (...)” (Case 4 - Press release about the new billing system)

Model of engagement

Innovation intermediaries act in a triadic basis or in more complex relationships, which can include several organizations, such as clients, suppliers, and other intermediaries (Howells, 2006). Nevertheless, they can be involved in dyadic relationships, providing services directly to their clients and not involving interactions with third parties. Relationships between intermediaries and their clients tend to be longer, to allow reinforcing mutual knowledge and trust.

According to the service companies, mostly of the collaboration projects developed with the consultancies were dyadic, involving direct interaction between the company and the consultancy. Often projects involved not only the department that engaged the consultancy but also other company’s departments, especially in the case of strategical projects. In some projects, consultancies serve as an interface between the company and other players (clients, suppliers, associations, public institutions, private companies, public, …), collecting information considered relevant to those projects.

Case 4 emphasized a collaboration project that involved the company (the client), the consultancy as a middleman, and a third-party (the technology supplier):

"The consultancy is responsible for working in-between the product provider and our company and do all sorts of coordinating work and project work for us (...) They are working as a consultancy at the same time because they try to understand our
requirements and try to use those systems to cope with our requirements (...) They have to work with the technology provider to get the results for us” (Case 4 - Director of Business Quality Assurance)

Two companies also reported other models of engagement, in which other type of players actively participated, namely other consultancies. These other consultancies where engaged by the service company or by the main consultancy:

“In fact, there were two external entities, in practice, one more oriented to the consultancy and another to the development of the technological solution” (Case 1 - Head of BA)

“We engaged another consultancy, a local small-sized company, with scholars from the academic side. The purpose of this engagement was to give us support along the whole process. It was not possible for us as technicians to do all this extra-work, monitoring and supervising, since we have other daily tasks to perform (...) That second consultancy analyzed the work and reports of the main consultancy, made recommendations, participated in the meetings” (Case 3 - Senior Executive)

Most part of collaboration processes lasted for an extended period, typically more than 6 months or even more than one year, and some of the companies pointed out that after the project completion the consultancy continued to provide support, what tended to happen in technological projects. Service companies declare to favor long lasting relationships, which allow the increasing of mutual knowledge and trust, critical elements to ensure the quality of service provisions. Yet, they felt it can result in complacency, jeopardizing the ultimate output, innovation:

"They have been working for us for quite a long time (...) But, personally I am not satisfied with their performance. I want to get ideas from them as an expert. But I usually do not get that from them (...) They just work on my requirements and tell me if the new system can cope with them or not. And I don’t need this answer. The answer I need from them is how they can make it work, how can we adjust our requirements to make it work? And I haven’t heard anything like this from them. It is a one-way conversation” (Case 4 - Director of Business Quality Assurance)
Consultancy roles

KIBS are seen to act as facilitators, when supporting a client in its innovation process, but not creating nor transferring innovation from others); carriers, when transferring existing innovations); sources, when triggering and developing innovations in the client); and also as co-producers of innovation, when working closely and interactively with the client in a two-way learning process (Muller and Doloreux, 2009; Winch and Courtney, 2007; Den Hertog, 2000; Miles et al., 1995; Den Hertog and Bilderbeek, 1998).

All four service companies perceived consultancies mostly as co-partners in innovation, since they worked alongside with the company to develop shared solutions, in a win-win partnership. The following quotes express this perspective:

"There is always a time to learn from someone who is outside. Whether in my case, or in the consultant's own case, these are always bi-directional processes of learning" (Case 2 - Head of S&P)

"This was the first market-oriented development of insurance and mediation in terms of technology. The consultants already had some know-how but not related to this industry. Neither they nor other consulting companies had innovated in this type of technology in this market. They innovated while developing the solution but also learned (...) their know-how became greater" (Case 1 - Head of BA)

"The design (of the tourism plan) was done by the consultant but always supervised by this department (.). In fact, we did not have to be the ones giving the ideas but this consulting company that has to do the study and inform us of the options (...) but we were always making corrections, adjusting their contributions, since they did not have enough knowledge" (Case 3 - Senior Executive)

Case 4 highlighted the role of the consultancies as innovation carriers in technological projects:

"The system is bought from a third party, a billing system provider. This company has a standard billing system but if we use that standard system, we might not be able to adapt it. So, the consultancy is in the middle, they have to think how to build that in the standard system, how to develop a system that meets our requirements" (Case 4 - Director of Business Quality Assurance)
Consultancy functions

Pinto et al. (2016) made a proposal of the possible intermediaries functions in service industry context, which considers 12 main functions: Analysis and definition of innovation needs; Identification of user needs and major trends; Signalization of technological options; Conceptualization of new service offerings; Conceptualization of new organizational methods; Conceptualization of new marketing strategies; Identification of potential partners; Testing and scaling; Selection and training of specialized workforce; Protection of innovation assets; Accreditation/certification; Investment appraisal.

All four service companies acknowledge the critical importance of consultancies in the diagnosis and articulation of innovation needs as well as in the analysis of the user needs and market trends.

“The consultancy interviewed various tourism industry companies as well as companies from other industries, other public services, associations as well as the general public to collect the different perspectives (...) It was also done an analysis of the city's urban planning, traffic, local capacity to receive tourists, touristic attractions, quality of the local offerings (...)” (Case 3 - Senior Executive)

“To create the new application, it was made a thorough examination of the existing processes and needs. Different departments were involved, and some elements of the departments of operations, quality, management control and finances were 100% dedicated to this project” (Case 1 - Head of BA)

Two of the companies, Case 1 and Case 4, pointed out consultancies’ functions in the identification of possible technological trajectories. For both companies the technological innovation has a strategic importance.

In all four cases, companies described the consultancy’s support in the innovation’s design. Case 2 remarked its support mostly in the definition of new services, such as the design of a new urbanistic plan. The other service companies considered that consultancies also helped them in the definition of organizational and marketing innovations. Case 1 pointed out the contribution of consultancies in redesigning the companies’ organizational processes, what resulted from the introduction of new
management software, and in the conceptualization of company’s new promotion strategies. Case 3 highlighted the role of consultancies in the redesign of its external network, in the reformulation of internal departments (such as the documentation center) as well as in the definition of new ways of positioning the brand in different target markets. Case 4 remarked the consultancies’ support at various levels - market research level, concept stores design and definition of customer e-channels.

Case 3 also reported the consultancy support in the identification of relevant partners in the implementation of some new events.

Case 1 and Case 4 focused the consultancies’ support in testing innovations. In both companies created technological innovations alongside with consultancies and it was mandatory to test the new platforms before launching them.

Most part of service companies mentioned that human resources training is critical to service quality and that consultancies have an extensive contribution at this level. Training is focused on technical areas but also on behavioral areas. Case 1 human resources director pointed out an innovative project developed with a consultancy, aiming to create moments of sharing and experience of corporate values in order to reinforce the culture and individual and collective commitment.

The companies did not get consultancies’ support at innovation protection level. In Case 1, head of BA reported some involvement of the consultancy in the protection of the new management platform. Nevertheless, specialized players in legal and innovation protection areas had to be involved.

Case 3 and Case 4 also described the consultancies’ support in concerning the evaluation of innovation outputs. The evaluation of company's performance and innovation outputs by a consultancy is strategic to redesign services or design new services or new strategies (namely in terms of policies of pricing, promotion, people…). Simultaneously, it provides assurance on company's decision making and gives credibility to the market. This is a new function, which is not included in Pinto et al. (2016) framework. The following comments highlight this idea:

“Sometimes demonstrating the obvious to outsiders in a scientific way is not simple. Many years ago, we designed and implemented a tourism event of major importance and it brought us large awareness worldwide. Nevertheless, there were enquiries
regarding the event’s profitability (...) at that time, I felt we should make a comprehensive and independent assessment of its economic benefits and I engaged an independent company, specialized in impact analyzes. And it was positive, since using scientific methodologies they concluded of the significant impact of this event in our economy.” (Case 3 – (former) Executive Director)

"Consultancies are important to our innovation process, helping us to design or redesign services, or our strategies (...) By instance, looking at the results of client's surveys we detect failures which help us to improve certain areas" (Case 4 - VP Legal and Regulatory)

Results

In general terms, service companies perceived consultancies' engagement as important partners to support the improvement of their innovation processes and outputs. Consultancies support was found rather important to prepare the company for innovation. Consultancies support is perceived as more critical in the identification of opportunities than in the innovation implementation, even though they can act as project managers. The following quotes convey this point of view:

“Consultancies gave suggestions and recommendations of what could be some new products (...) Some innovations can be implemented, by instance at maritime tourism level (...) But the plan does not specify exactly what. This has to be implemented and defined by private initiative.” (Case 3 - Senior Executive)

"The consultant works more at the diagnostic level, identifying opportunities, but less on the creation of innovation. It can help in the creation of innovation but as head of project to organize the development of the response" (Case 1 - Digital Director)

“I think that in the end the creation of innovation has to come from the company. The spark or idea may be originated from the consultant. But it has to be taken on, absolutely owned by the company. If that doesn’t happen, you are not past to failure" (Case 4 - VP of Strategy & Business Performance)

Consultancies were considered important partners to improve the quality of the companies' service provision, what can sometimes result in the co-development of highly innovative technological solutions:
"The consultancy is always an added value beyond the installed capacity. It is about advice and information that adds value to what we are doing. We are not expecting it to change radically our perceptions but to adjust them slightly" (Case 2 - Head of S&P)

"We are incredibly innovative, it is our DNA, we are restless, we are always looking for new and different things (...) Having the right partners we greatly enhance our ability to innovate" (Case 1 - Executive Director)

“It was something really innovative produced in-house (...) until then, there was no other broker in Portugal with its own software. This stirred our pride indoors." (Case 1 - Head of BA)

Constant interaction between the client and the consultancy was perceived as a key factor to boost collaboration results. In this context, the company should be adequately prepared to manage and get the best of the interactions. This idea is present in the following quotes:

“Our department was responsible for the interaction with the consultancy team, and there was a department member assigned as project manager. (...) We always had to be supportive, altering, adjusting the contributions because they did not know well our reality” (Case 3 - Senior Executive)

"We have to have the ability to dialogue at a certain specialized level with the consultancies; otherwise, they lead and we do not have control and be drifting from our objectives" (Case 3 – (former Executive Director)

“I am always looking for something more interactive in the beginning so that I can have a better result at the end. Otherwise they will do it the same way and tell us the same things. For me interaction with consultancies is really important otherwise I don’t get anything from them” (Case 4 - Director of Business Quality Assurance)

"It should be a dynamic process of inputs and outputs between us and the consultancy. The information comes in, I analyze it critically and then I react to it, demanding the consultancy feedback. I believe there is such care, at least in my area” (Case 2 - Head of S&P)

Additionally, service companies felt that consultancies should know well the
specificities of the (clients') industry and of local market, to foster the collaboration results:

"The difficulty of working with consultancies is that sometimes they fail to respond to our needs since they are not aware of our local reality, especially the international consultants (..) They do not understand the local legislation (..) They think they can change things from one day to another but it is not so" (Case 3 - Senior Executive)

"The consultancy should have good knowledge of the client's business: 50% of consultancies knowledge should be about the client's business knowledge, 50% about technical knowledge. However, our experience of contact is not quite that. There is a gap in the market. There are many technical savvy people but they know little about client's industry" (Case 1 - Head of AT)

Some companies remarked the importance of defining precisely the boundaries of consultancies’ support and setting concrete deliverables associated with consultancies’ work. This "tangibilization of outcomes" is considered important due to the significant costs of the consultancy work. Companies find important to clearly understand for what they are paying for and what will be the ratio benefit/cost. Simultaneously, this clarification is critical to get internal support essential to the project’s success and, in this context, it is of the utmost importance to explain to staff the expected results of consultancy engagement to get their support. The following comments convey this point of view:

“Nowadays, we are using consultancy less and differently. The days that we were using it as a big bang project, that you took a fleet of consultants, this tends not to happen so much (...) People want to see, literally, deliverables. Ad I think that previously although strategy and reviews and stuff like that were all viewed as useful, in the end there was a feeling of “oh, we have done that, but what did we actually achieve?”” (Case 4 - VP of Strategy and Business Performance)

"For a long time, we used consultancies as advisors and, simultaneously, as producers of an overall study, and that did not work well. More recently, we are detailing and separating their tasks from ours. We are responsible for the study execution, counting on their input; their task is to provide us guidance, advice, and
specific information. This new model works fine." (Case 2 - Director of Urban Planning)

"It is truly important to set the project's aims and expected results (what should be the deliverables)" (Case 1 – Director of Human Resources)

5. Discussion and conclusions

Service companies perceived consultancies as important innovation partners. Due to their small-sized dimension and lack of qualified human resources, they look for the consultancies' support. These service companies engaged a wide variety of consultancies in areas such as strategy, technology, marketing, economy, internationalization, organizational and human resources, engineering, and law. They reported a large diversity of collaboration projects with consultancies. However, not all collaboration projects targeted innovations, i.e. only part of them aimed to create or improve products or processes or to design new marketing or organizational strategies.

It seems rather important to separate the consulting work from services provided by consultancies. The companies interviewed shared consulting experiences provided by consultancies but also by other players, namely the university and suppliers. Consulting work is mostly associated with guidance and advice, and this role can and is developed by other players besides consultancies. Nevertheless, service companies pointed out that consultancies are strategical innovation partners, due to the quality of outputs and prompt response.

According to the testimonies, the company's industry seems to affect the nature of projects developed with consultancies. Companies belonging to insurance and telecommunications industries reported the importance of consultancy engagement in highly innovative technological projects, strategic for the business’ competitiveness, usually related information and communication technologies. The other companies did not emphasized collaboration projects of technological nature. This finding is also aligned with previous research (Tether, 2005; Gallouj and Savona, 2009) which highlights that service industry includes a wide diversity of activities with different
approaches to innovation, reinforcing the idea that there is not a “manufacturing mode” and a separate “service mode” of innovation.

Service companies highlighted as main motives to engage consultancies the need for specialized information and advice. Companies look for providers that congregate technical, industry and market knowledge. The access to other players is not considered a key motivation to collaborate with consultancies, unless when a new specific type event is being implemented. In this situation, due to previous experiences and participation in relevant networks, consultancies are an important partner. Furthermore, consultancies are not perceived as relevant actors in innovation funding; however, they can provide support in the completion of the service company's funding application.

A key finding is that motivations for consultancy engagement might change along the relationship life cycle. In later stages of the relationship, a critical motivation for consultancy's engagement by service companies is related with search for methodology. A consulting methodology provides a frame of reference, structure and a prescribed set of activities and tasks that will be undertaken in a particular and logical order. This type of motivation could be explained by the peculiar nature of services. Service companies' provision is characterized by its intangibility and variability, and service companies rely on softer strengths at innovation, such as staff’s skills and capabilities. In this setting, process management is critical for companies. In this sense, consultancies are a valuable ally, which can help them help to organize their projects into structured, streamlined processes.

Additionally, companies' motives to engage consultancies are related with the need for an external, credible voice. Service intangibility underlines the significance of physical cues in service promotion. Therefore, the reputation of the service provider is considered critical to ensure market trustworthiness and companies look for high-reputable providers, namely with international dimension.

The relationships established between service companies and consultancies are usually one-to-one, not involving third parties. The consultancy is not envisaged a broker, that facilitates the company's access to third parties, but mainly as a co-producer of knowledge alongside with the company.
Service companies reported that consultancies’ main functions are mostly related with diagnosis and market opportunities detection, and, simultaneously, they help to define and conceptualize innovations. Often, they provide extensive training to company's staff, to increase their skills in technical and non-technical subjects. The formal evaluation of innovation outcomes by consultancies is also found important to trigger new innovations. This a new function of innovation intermediaries in service industry which was not covered by Pinto et al. (2016), even though it was considered in Howell's (2006) framework.

Projects established with consultancies can be of strategical or more operational nature. Service companies pointed out the strategic role of consultancies in preparing the company for innovation. As an external expert, they take a broader perspective and look at the big picture, helping to spot new opportunities, which many times are not obvious to the company. And, even though companies consider that the innovation implementation needs to be done directly by themselves, consultancies are perceived as a valuable partner at project management level, due to their past experiences, valuable expertise and extensive network.

When evaluating results, service companies find important to associate the consultancies' work with specific deliverables, due to the nature of the provision. The consultancy work is perceived as a provision that essentially involves guidance and advice, and where clients do not ask for a final product. In this sense, the "tangibilization of outcomes", through its association to a clear deliverable, is considered essential by service companies.

Service companies considered that consultancies helped them to improve the overall quality of their offerings and that, in some cases, namely in technological projects, they co-produced radical innovations.

The quality of the engagement is perceived as being a result of significant interactions between the client and the service provider, and service companies pointed out the criticality of being well prepared to engage. In this setting, even though long-term relationships are favored, they are also envisaged as a threat to innovation, since
they can result in complacency. Simultaneously, the lack of specific market and industry knowledge by consultancies can jeopardize the engagement success.

To conclude, we point out as mains contributions of this study:

We tested the framework of Pinto el al (2016), which covers the functions of innovation intermediaries in services, using a multiple case study approach. It was investigated the role of consultancies as intermediaries, through the lens of service companies as consultancies' clients. Furthermore, our study allows triangulating and complementing findings of a previous study of Pinto et al. (2017) as well as complements and extends the existing research on innovation intermediaries.

Regarding the roles and functions of intermediaries in services, firstly, and aligned with previous research (Pinto et al., 2016, 2017), we conclude that consultancies functions at diagnostic level are of critical importance. Secondly, we point out that consultancies, as innovation intermediaries in services, act mostly as a co-producer of innovation, technological or non-technological, and their brokering role seems to lose importance. Thirdly, a new function of innovation intermediaries is suggested, related with the evaluation of innovation outcomes. This function was not considered in the two previous studies (Pinto et al., 2016, 2017), even though it was included in Howell’s framework (2006).

The analysis of the collaboration relationships and projects established between consultancies and service companies allows a better understanding of services approaches to innovation. New types of motivations for consultancy engagement are uncovered, namely related with the search for methodology and credibility.

The research also concludes that consultancies' main contribution to their clients is to prepare them to innovate, and less to support the innovation implementation. Nevertheless, consultancies are envisaged as a valuable partner managing very specific projects, from top to bottom, to cope with companies’ lack of resources and expertise.
Another important finding is that service companies favor collaboration projects where deliverables are clearly identified. Radical innovations are not perceived as a frequent output of consultancies' engagement, occurring mostly on technological projects.

Finally, we conclude there is not a unique service innovation mode and these approaches to innovation are certainly not unique to services, and can also be found amongst manufacturers (Castro et al., 2011; Tether, 2005). Consequently, it is important to draw on these findings to ensure the development of a synthesis approach to innovation by emphasizing innovation features which are overlooked in studies taking a technology-focused manufacturing approach to innovation (Castro et al., 2011; Drejer, 2004).

6. Limitations and future research directions

Our study deepens the understanding of innovation intermediaries’ roles, and more specifically the role of consultancies, in service industry innovation, contributing to the synthesis approach of innovation. However, it is a qualitative study, not allowing generalization of findings. It may be interesting to validate our findings empirically, developing an adequate scale for questionnaire-based survey.

Our analysis focuses on four service organizations belonging to different sub-sectors of services industry. Due to the diversity of the services industry, it is extremely important to extend the analysis to other service sub-sectors. Furthermore, it could be interesting to scrutinize the relationship established between the service organization and the consultancy, using a longitudinal study. Future research could also investigate the role of other types of innovation intermediaries in services.

A big challenge remains in the horizon that is creating a unique framework to analyze innovation intermediaries’ functions, which can encompass innovation in service and in manufacturing industries.

This study provides insights into how consultancies and services companies can maximize the outputs of their engagement. Consultancies can look into services companies' key motivations to engage with consultancies, models of engagement,
consultancies' functions perceived as strategic, as well as critical factors, to improve their offerings. Service companies can learn from other peer experiences.

References and Notes


APPENDICES
1. Search 1 = innovation intermediaries+service innovation (70 results =50+20)
Registro 1 de 50
Título: Intermediary Business Models for Connecting Open Data Providers and Users
Fonte: SOCIAL SCIENCE COMPUTER REVIEW
Volume: 32
Edição: 5
Edição especial: SI
Página: 411-428
Publicado: OCT 2014
Resumo: Many public organizations are opening their data to the general public and embracing social media in order to stimulate innovation. These developments have resulted in the rise of new, intermediary business models, positioned between open data providers and users. Yet the variation among types of intermediary business models is not sufficiently understood. The aim of this article is to contribute to the understanding of the diversity of existing intermediary business models that are driven by open data and social media. Cases representing different modes of open data utilization in the Netherlands are investigated and compared. Six types of business models are identified: single-purpose apps, interactive apps, information aggregators, comparison models, open data repositories, and service platforms. The investigated cases differ in their levels of access to raw data and in how much they stimulate dialogue between different stakeholders involved in open data publication and use. Apps often are easy to use and provide predefined views on data; whereas service platforms provide comprehensive functionality but are more difficult to use. In the various business models, social media is sometimes used for rating and discussion purposes, but it is rarely used for stimulating dialogue or as an input to policy making. Hybrid business models were identified in which both public and private organizations contribute to value creation. Distinguishing between different types of open data users was found to be critical in explaining different business models.
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ISSN: 0304-1207
Registro 2 de 50
Autor(es): Kebilina, A. (Kebilina, Anderson Owuor); Alenmag, D. (Alenmag, Cleudiane); Minang, P. A. (Minang, Peter Among)
Título: Comparative Multi-Criteria Assessment of Climate Policies and Sustainable Development Strategies in Cameroon: Towards a GIS Decision Support Tool for the Design of an Optimal REDD+ plus Strategy
Fonte: SUSTAINABILITY
Volume: 6
Edição: 9
Páginas: 6125-6140
Publicado: SEP 2014
Resumo: Cameroon is committed to reducing emissions from deforestation and forest degradation plus conservation, sustainable management of forests and enhancement of carbon stocks (REDD+). To achieve this goal, the government has introduced a series of policy reforms and formulated a number of key strategic planning documents to advance the REDD+ readiness process in Cameroon. This paper assesses the extent to which major cross-sectoral policies support or impede the development and implementation of an optimal REDD+ strategy in Cameroon from a comparative multi-criteria perspective. Study results reveal that a majority of the policy instruments reviewed appeared to be less prescriptive in terms of any tangible REDD+ strategy, as they do not have provisions for tangible measures to reduce deforestation and forest degradation. Given the lack of adequate flexibility, prompt review and responsiveness of these cross-sectoral policies to adapt themselves to new realities and respond to a changing environment, this paper introduces a GIS-REDD+ decision support system (GIS-REDD+DSS) that is necessary to support the adaptive element of an adaptive REDD+ strategy in Cameroon. The GIS-REDD+DSS, an electronic REDD+ plus interim decision support tool, serves the following purpose: (1) host a database of locally relevant climate information, improved input technologies, best practices as well as land use and forest cover geo-spatial maps; (2) host a virtual economic tool that performs economic valuations (costs and benefits) and financial analysis of REDD+ projects to aid investment decision-making; and (3) host an electronic marketplace to mediate any-to-any transactions among REDD+ project developers, service providers, input suppliers, private and institutional investors and buyers (wholesalers and retailers), thereby creating value in two ways: aggregation and matching. This decision support tool, we argue, is a fundamental prerequisite for policy and REDD+ safeguard integration innovation that allows new scientific findings to be integrated into REDD+ strategies in a short period of time.
Número de acesso: CCR:030332298020000
ISSN: 2071-1050
Registro 3 de 50
Autor(es): Holzmann, T.; Holzmüller, Thomas; Sailer, K. (Sailer, Klaus); Katzy, U.; Katzy, Bernhard R.
Título: Matchmaking as multi-sided market for open innovation
Fonte: TECHNOLOGY ANALYSIS & STRATEGIC MANAGEMENT
Volume: 26
Edição: 8
Páginas: 611-635
Publicado: JUL 2014
Resumo: An obvious task in open innovation is to find suitable partners for collaboration. In this paper we present results from three participatory case studies of identifying and matchmaking technology firms for collaborative innovation projects. We observe that matchmaking is a more complex process than an (online) market transaction. The cases show how innovation intermediaries organise the matchmaking process as external service providers, and what economic contribution they can have. The paper conceptualises matchmaking for collaborative innovation as economic resource allocation process in the shape of a multi-sided market which involves the innovator partners and intermediaries. The paper concludes with theoretical and practical implications that such a conceptual lens offers for explaining technology analysis projects and for the management of matchmaking processes for innovation partnership formation.
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http://apps.wileyknowledge.com/OutboundService.svc?action=go&displayCitedRef=true&displayTimesCited=true&displayUsageInfo=true&view... 1/17
### Web of Science [v5.29] - CCC Expositor servicio de transferencia

**03/08/2018**

**Publicado:** MAY 2014

**Resumo:** This article takes an innovation intermediary perspective to examine farmer cooperatives’ FCs roles in facilitating agricultural innovation and its positioning in the agricultural innovation system (AIS). The article draws experiences from the rapidly emerging FC field in China. Three cases are selected to cross a check findings from them and innovation journey analysis is used within each case to understand FCs’ engagement in innovation processes. The findings show that FCs cover a wide range of knowledge intermediation and innovation intermediation functions identified by the literature. FCs recognize the importance to connect technical, social and economic dimensions of farming practice and provide external supporting services to link farmers or relevant actors, like extension agencies, research institutes and supermarkets. Though they mainly work through bilateral relationships as opposed to acting as a systemic intermediary, they could take the role of coordinator in the service system and bridge the gap between the research and policy system and everyday farming practice, especially in the absence of a systemic coordinator. However, their legitimacy as intermediary might be challenged due to the potential conflicts with governments, market actors or their members, and their local position may provide insufficient clout for developing durable relationships with relevant actors. IC 2014 Elsevier Ltd. All rights reserved.

**Número de acesso:** CCC00003/192400007

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**Registro 9 de 50**

**Autores:** Cheshbrough, H (Cheshbrough, Henry); Brunswicker, S (Brunswicker, Sabine)

**Título:** A Fad or a Phenomenon? The Adoption of Open Innovation Practices in Large Firms

**Fonte:** RESEARCH AND TECHNOLOGY MANAGEMENT

**Volume:** 57

**Edição:** 2

**Páginas:** 16-25

**Publicado:** MAR-APR 2014

**Resumo:** We surveyed 125 large firms in Europe and the United States with annual sales in excess of $250 million to examine the extent to which large firms are now practicing open innovation. Our results showed that open innovation is not a passing fad: 78.1% of the firms report practising open innovation, none have abandoned it, and 83.6% of those practising open innovation report that it is practiced more intensively today than three years ago. We also asked about specific practices for “outside-in” and “inside-out” open innovation. We found that customer co-creation, informal networking, and university grants were the three leading inbound practices in 2011, crowdsourcing and open innovation intermediary services were rated lowest in importance. Joint ventures, selling market-ready products, and standardization were the three leading outbound practices; donations to commons and spinoffs were least frequently used. We also found that large firms are more likely to receive freely revealed information than they are to provide such information.

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**ISSN:** 0895-6308

**Registro 9 de 50**

**Autores:** Hu, MC (Hu, Mei-Chin); Sharrar, L (Sharrar, Nasrul); Baerl, E (Baerl, Erik)

**Título:** Information Technology Services: A Key Knowledge-Intensive Business Service Industry in Hong Kong SAR, China

**Fonte:** SCIENCE AND TECHNOLOGY POLICY

**Volume:** 19

**Edição:** 1

**Páginas:** 27-55

**Publicado:** MAR 2014

**Resumo:** As the global economy focuses increasingly on Asia, Hong Kong’s role as an intermediary between China and the rest of the world merits investigation. In view of the increasing importance of knowledge-based business services and Hong Kong’s recent drive to promote innovation and high-tech services, economists and policy makers must understand Hong Kong’s capacity to support economic development in the Asian region. Following a theoretically informed discussion of the role of Information Technology (IT) services within the broader category of knowledge-intensive business services (KIBS), Hong Kong’s IT services sector is described and a study is undertaken to determine its potential for supporting an innovative local services environment and to identify the key opportunities and challenges involved in further developing the sector. In-depth interviews of important actors in the IT services sector in Hong Kong and case studies of firms that have been able to supplement our analyses of data on IT service production and usage. IT services represent an opportunity through which Hong Kong can use targeted policy to drive growth and expand and deepen economic relations with Mainland China.

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**Registro 10 de 50**

**Autores:** Liu, Y (Liu, Xiangmin); van Jaarsveld, T (van Jaarsveld, Danielle); Ratt, A (Ratt, Rosemary); Frost, AC (Frost, Ann C.)

**Título:** The Influence of Capital Structure on Strategic Human Capital: Evidence from US and Canadian Firms

**Fonte:** JOURNAL OF MANAGEMENT

**Volume:** 40

**Edição:** 3

**Páginas:** 422-448

**Publicado:** FEB 2014

**Resumo:** Strategic human-capital research has emphasized the importance of human capital as a resource for sustained competitive advantage, but firm investments in this intangible asset vary considerably. This article examines whether and how external pressures on firms from capital markets influence their human capital strategy. These pressures have increased over the past three decades due to banking deregulation, technological innovation, and the rise of institutional investors and new financial intermediaries. Against this backdrop, this study examines whether a firm’s capital structure as measured by

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**Page 154**
Registro 11 de 50
Autor(es): Wu, AQ (Wu, Aiqi); Li, SX (Li, Shengxia); Wang, HF (Wang, Hufeng)
Título: New ventures, product innovation and business intermediaries
Fonte: CHINESE MANAGEMENT STUDIES
Volume: 8
Edição: 2
Edição especial: SI
Páginas: 241-257
Publicado: 2014
Resumo: Purpose: The purpose of this paper is to examine the impact of knowledge-intensive business services (KIBS) intermediaries on new ventures’ product innovation. Product innovation is a critical strategy for new ventures’ survival and growth. However, as a result of smallness and weakness, new ventures usually face considerable difficulties in product innovation and require support to help their innovation search and innovation activities. Design/methodology/approach: A questionnaire survey of 245 Chinese new ventures is used to test presented hypotheses empirically.
Findings: This study finds that the intensity of KIBS intermediary ties has a positive influence on innovation, while the diversity of KIBS intermediary ties has no significant effect on innovation. The relationship between the intensity of KIBS intermediary ties and new ventures’ product innovation is moderated by the degree of their international venturing and ties with other firms.
originality/value: This study enriches understanding of the important roles of KIBS intermediary ties on new ventures’ product innovation.
Número de acesso: CCC 0038-5242/40000004
ISSN: 1750-614X

Registro 12 de 50
Autor(es): Knackaart, M (Knackaart, Mireille); Spithoven, A (Spithoven, Andre); Clarysse, B (Clarysse, Bart)
Título: The impact of technology intermediaries on firm cognitive capacity additionality
Fonte: TECHNOMETRICS: FORECASTING AND SOCIAL CHANGE
Volume: 81
Páginas: 397-397
Publicado: 2014
Resumo: Whereas the provision of R&D subsidies “has been central to public policy for many years, governments have recently become increasingly involved in catalyzing cooperation for innovation and R&D. In many countries, financial support for technology intermediaries has become one of the key measures of indirect public support. However, little research has assessed the impact of indirect policy measures. In this paper, we shed light on the conditions under which these intermediaries contribute to knowledge and networking outcomes generated by the firms that call upon them. We thereby focus on firm network and competence additionality as measures for cognitive capacity additionality and study the impact of technology intermediaries on firms. In doing so, we distinguish between R&D and R&D-related activity: technology intermediaries engage in. The results indicate that absorptive capacity of the technology intermediary does not affect cognitive capacity additionality: generated by firms in R&D activities, while the results for R&D-related activities are limited and depending on the type of cognitive capacity additionality studied. The absorptive capacity of firms does not directly affect cognitive capacity additionality, but the results of mediation analysis show that firms with higher levels of absorptive capacity use the services of the technology intermediary more intensively, and subsequently generate higher levels of cognitive capacity additionality.” (C) 2013 Elsevier Inc. All rights reserved.
Número de acesso: CCC 0012-821X/30000033
identificados de autores:

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ISSN: 0361-5028

Registro 13 de 50
Autor(es): Sinclair, RC (Sinclair, Raymond C.); Cunningham, TR (Cunningham, Thomas R.); Schults, PA (Schults, Paul A.)
Título: A Model for Occupational Safety and Health Intervention Diffusion to Small Businesses
Fonte: AMERICAN JOURNAL OF INDUSTRIAL MEDICINE
Volume: 56
Edição: 12
Páginas: 1442-1451
Publicado: DEC 2013
Resumo: Background: Smaller businesses differ from their larger counterparts in having higher rates of occupational injuries and illnesses and fewer resources for preventing these incidents. Intervention models developed outside the United States have addressed the resource deficiency issue by incorporating intermediary organizations such as trade associations.
Methods: This paper extends previous models by using exchange theory and by borrowing from the diffusion of innovation model. It emphasizes that occupational safety and health (OSH) organizations must understand how to position interventions and information to intermediaries as both actors to their relationships with small businesses. Examples from experiences in two midwestern states are used to illustrate relationships and types of analysis implied by the extended model.
Results: The study found that intermediary organizations were highly attuned to providing smaller businesses with what they want, including OSH services. The study also found that there are opinion leader organizations and individual champions within intermediaries who are key in decisions and actions about OSH programming.
Conclusions: The model places more responsibility on both initiators and intermediaries to develop and market interventions that will be valued in the competitive small business environment where the resources required to adopt each new business activity could be used in other ways. The model is a candidate for empirical validation, and it offers some encouragement that the issue of sustainable OSH assistance to small businesses might be addressed. Am. J. Ind. Med. 56:1442–1451, 2013. Published 2013. This article is a U.S. Government work and is in the public domain in the USA.

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Número de acessos: CCC000333018240000001
ID: Published: 2411.112
ISSN: 0271-3596

Registro 14 de 53
Autor(es): Hu, TS (Hu, Tai-Shan); Lin, CY (Lin, Chien-Huan); Chang, SL (Chang, Su-Li)
Título: Knowledge-intensive business services and client innovation
Fonte: SERVICE INDUSTRIES JOURNAL
Volume: 33
Edição: 15-16
Páginas: 1435-1455
Publicado: DEC 1 2013
Resume: Innovative activities, driven by a knowledge economy era, globalization, and pressure of global competition, have profoundly impacted local economies since the late 1980s. Relevant studies in the recent decade have gradually emphasized the increasing importance and continuous expansion of knowledge-intensive business services in current economy development. This topic represents a major trend impacting industrialized economies. Therefore, this study elucidates the roles and functions of knowledge intensive business services as an innovation system evolves. Exactly how technology-based firms and knowledge-intensive business services interact with each other, as well as the roles of knowledge-intensive business services, is also analyzed by examining how the area innovation system centered in Hsinchu Science-Based Industrial Park in Taiwan has evolved. Results of this study demonstrate that knowledge-intensive business services function as an intermediary role in the innovation system. These services enhance customers’ capacity for specialization, subsequently improving their evolutionary capabilities and producing tangible innovative cycles.

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ISSN: 0264-2069

Registro 15 de 53
Autor(es): Landry, R (Landry, Réjean); Avrana, N (Avrana, Naomi); Cloutier, JS (Cloutier, Jean-Samuel); Halliem, N (Halliem, Norrin)
Título: Technology transfer organizations: Services and business models
Fonte: TECHNOVATION
Volume: 33
Edição: 12
Páginas: 431-449
Publicado: DEC 2013
Resume: Knowledge and technology transfer organizations (KTTOs) are crucial nodes connecting suppliers and users of knowledge that support the endogenous potential of innovation in firms. Prior studies on the services provided to firms by KTTOs tend to have weak theoretical foundations, to rely on case study approaches, and to focus attention on one service in a few services provided by a single organization. This study extends and integrates elements from a conceptual knowledge value chain and business model frameworks. The value chain perspective allows integrating the services offered by KTTOs in the value chain of firms. As for the business model perspective, it allows developing hypotheses about how KTTOs create and deliver value for client firms. To test these hypotheses, data is collected and analyzed in a data set of 21 publicly supported KTTOs located in Canada. The empirical results show that different types of KTTOs tend to specialize in the provision of services at different stages of the value chain of firms, and to benefit from complementarities effects between customer offerings. Our analysis also shows that different types of KTTOs devise different types of business models that are centered on services linked to different stages of the value chain. Overall, these results suggest that managers of KTTOs could improve their business models and increase value to client firms by increasing the degree of customization of services offered to clients which, in turn, would also increase revenues from clients, and hence reduce KTTOs vulnerability to reductions in government funding. (C) 2013 Elsevier Ltd. All rights reserved.

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ISSN: 0366-4972

Registro 16 de 53
Autor(es): Lichtenthäler, U (Lichtenthäler, Ulli)
Título: The Collaboration of Innovation Intermediaries and Manufacturing Firms in the Markets for Technology
Fonte: JOURNAL OF PRODUCT INNOVATION MANAGEMENT
Volume: 30
Suplementos: 1
Páginas: 142-154
Publicado: DEC 2013
Resume: Many manufacturing firms have opened up their product innovation processes and actively transfer knowledge with external partners in the markets for technology. However, the markets for technological knowledge have remained inefficient in comparison with the markets for most products. To reduce some of the market inefficiencies, manufacturing firms may collaborate with innovation intermediaries, which are defined as organizations that act as agents or brokers in the innovation process between two or more parties. These innovation intermediaries comprise different service providers ranging from consulting companies to internet marketplaces for technology. In light of an increasing importance of intermediary services in the context of open innovation, this paper specifically focuses on the collaboration of manufacturing firms and innovation intermediaries, which may be critical for the success of intermediary services. Based on new interview data from 30 innovation intermediaries and 30 European manufacturing firms, this paper examines the question of how innovation intermediaries and manufacturing firms collaborate concerning the following issues, which emerged as the key themes from the interview participants: roles of intermediaries, types of intermediation, drivers of intermediation, complementarity of intermediation, compensation of intermediation, and the importance of repeated collaborations. The findings indicate how manufacturing firms may reduce their transaction costs in technology markets by collaborating with intermediaries. However, intermediary services can only be regarded as a complement rather...
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Registro 20 de 50
Autor(es): Stewart, J (Stewart, James); Procter, K (Procter, Rob); Williams, R (Williams, Robin); Posch, M (Posch, Michael)
Título: The role of academic publishers in shaping the development of Web 2.0 services for scholarly communication
Fonte: NEW MEDIA & SOCIAL CHANGE
Volume: 15
Edição: 3
Páginas: 413-432
Publicado: 2013
Resumo: This paper examines how two contrasting academic publishers are responding to the opportunities and challenges of Web 2.0 to innovate their services. Our findings highlight the need to take seriously the role of publishers in the move towards a vision of more open and rapid scholarly communication and to understand the factors that shape their role as intermediaries in the innovation pathways that may be needed to achieve it.
Número de acesso: 00392345100300005
ISSN: 1461-4489

Registro 21 de 50
Autor(es): Telio-Martinez, JA (Antonio Telio-Martinez, Jose); Molina-Morales, TX (Xavier Molina-Morales, T) Mas-Verdu, F (Mas-Verdu, Francisco)
Título: Perceived usefulness of innovation programs for high-tech and low-tech firms
Fonte: MANAGEMENT DECISION
Volume: 51
Edição: 8
Páginas: 1290-1296
Publicado: 2013
Resumo: Purpose - Despite the sizable amount of previous research on this topic, little is known about the reasons why firms decide to start collaboration projects with innovation advanced service providers, such as universities and technological instituties. This paper aims to investigate which factors at an individual firm level are involved in these collaborative strategies on supporting product and management improvements offered by local institutions to innovative firms.
Design/methodology/approach - The research is contextualized in the Valencian region and applies the resource-based view and the regional innovation system approach as theoretical frameworks. Methodologically, the paper adopts a cross-sectional analysis and employs ordered regression models on a sample of innovative firms during 2009.
Findings - First, this paper endorses previous research suggesting the crucial role of cooperation and external knowledge on SME innovation. Secondly, it evidences how internal resources and capabilities determine a firm's use of public-supported innovation. Thirdly, previous experience appears to be extremely relevant in explaining successful engagement in both technological and managerial innovation programs.
Research limitations/implications - Because the case study approach and qualitative methodologies are used, the authors advise readers not to generalize their findings. The research on the subject matter is offered as a means to substantiate or refute the latest research premises, and provide empirical evidence on the selected region.
Originality/value - Although this paper corroborates recent contributions, it does provide some novel findings. High-level managerial capabilities seem to encourage the use of public programs supporting innovation practices (either in technological or managerial aspects), while engagement in university programs relies heavily on the firm's technological capabilities or exposure to global competition, and less on other characteristics. Policy-makers should pay particular attention to both pieces of evidence when designing programs.
Número de acesso: 00302191461000005
Identificadores de autores:

Registro 22 de 50
Autor(es): Fox, GI (Fox, Gavin L); Smith, JS (Smith, Jeffery S); Cronin, JJ (Cronin, J, Joseph, Jr.); Bruoso, M (Bruoso, Michael)
Título: Weaving webs of innovation
Fonte: INTERNATIONAL JOURNAL OF OPERATIONS & PRODUCTION MANAGEMENT
Volume: 51
Edição: 1-2
Páginas: 5-24
Publicado: 2013
Resumo: Purpose - This research aims to utilize a social network analysis approach to examine the effect of organizational position within, a network of strategic partnerships on innovation as measured by perceptions of industry analysts. Specifically, the purpose of the paper is to examine how network characteristics, such as degree centrality (being centrally located in a network), between centrality (being positioned as an intermediary), and closeness centrality (having a short average distance to all other firms in the network) affect the innovation ranking of the focal firm.
Design/methodology/approach - Data for 613 firms are generated from three distinct data sources (ISCO, Alliance, and Fortune's America's Most Admired Companies) and analyzed via social network analysis and logistic regression.
Findings - The network characteristics of degree centrality and between centrality positively relate to industry perceptions or innovation whereas closeness centrality had no significant effect. Additionally, there were no discernable differences in innovation when comparing manufacturing firms to service organizations.
Research limitations/implications - The insignificant findings related to closeness centrality and the good/service differential may be attributable to the data sources, in that, the information is limited to firms within the respective sectors. This data limitation may limit the potential of examining the effect of all network characteristics. Additionally, some included companies participate in multiple industries (i.e., have multiple SIC codes), which may serve as the blurring of any differences between good and service firms.
Practical implications - The results highlight the importance of considering strategic partnerships that establish configurations of partnership webs when pursuing innovation activities. Specifically, the findings suggest that firms should seek numerous strategic partnerships (high degree centrality) and attempt to broker information or control the extent to which partners collaborate (high between centrality). These results provide insights for firms seeking to establish new supply chain relationships in order to enhance their level of innovation.

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Page 158
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Web of Science [v5.29] - CCC Expositor servico de transferência

Originality/value - This research provides a unique empirical examination of the impact of network positional characteristics on the innovativeness of a focal firm.

Número de acesso: CCC:090312495906010

ISSN: 0390-1917

Registro: 32 de 50

Autor(es): Spiller, M; Spiller, Marc; McNichols, B; McNichols, Brian S; Seaton, R; Seaton, Roger A; Jeffrey, P; Jeffrey, Paul

Título: Implementing Pollution Source Control Learning from the Innovation Process in English and Welsh Water Companies

Fonte: WATER RESOURCES MANAGEMENT

Volume: 27

Edição: 1

Páginas: 75-84

Publicado: JAN 2013

Resumo - Improving the stimulation and management of innovation by water utilities is a key mechanism through which the challenges of securing sustainable water and wastewater services will be achieved. This paper describes the process of adopting source control interventions (SCI) by water and sewerage companies (WSCCs) in England and Wales. SCIs can be defined as efforts by water suppliers to control agricultural pollution where it arises. To investigate differences in the extent to which SCIs have and are being adopted across all 44 WSCCs in England and Wales, Rogers’ five stage innovation model was used to structure and interpret results from a series of semi-structured interviews with raw water quality and catchment management personnel. Results suggest that to promote SCI innovation by WSCCs, regulation should be designed in two interdependent ways. First, regulation must generate awareness of a performance gap so as to set an agenda for change and initiate innovation. This can be achieved either through direct regulation or regulation which raises the awareness of an organisation’s performance gap, for example through additional monitoring. Simultaneously, regulation needs to create possibilities for implementation of innovation through enabling WSCCs in a where appropriate. Evidence from the research suggests that appropriate intermediary organisations can assist in this process by providing a resource of relevant and local knowledge and data. Future research should seek to characterise the factors affecting each stage in the WSCI innovation process both to confirm the conclusions of this study and to reveal more detail about various influences on innovation outcomes.

Número de acesso: CCC:090312757280805

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ISSN: 0920-4741

Registro: 24 de 50

Autor(es): Duffy, J; Duffy, Jennifer L; Prince, MS; Prince, Mary Sevareid; Johnson, E; Johnson, Erin E; Atton, FL; Atton, Forrest L; Foy, S; Foy, Shannon; Foy, AL; Foy, Amy Mathison; Padgett, DE; Padgett, Polly Edwards; Rollins, C; Rollins, Chris; Becker, DB; Becker, Dansil; Higley, AL; Higley, Angela L.

Título: Enhancing Teen-Pregnancy Prevention in Local Communities: Capacity Building Using the Interactive Systems Framework

Fonte: AMERICAN JOURNAL OF COMMUNITY PSYCHOLOGY

Volume: 50

Edição: 1-4

Edição especial: SI

Páginas: 379-395

Publicado: DEC 2012

Resumo - Getting To Outcomes (GTO), an innovative framework for planning, implementing, evaluating, and sustaining interventions has been shown to be effective in helping community-based organizations (CBOs) introduce science-based approaches into their prevention work. However, the Interactive Systems Framework (ISF) suggests that adapting innovations like GTO requires a significant capacity-building through training ar, technical assistance (TA). In this study, 11 CBOs and three schools in South Carolina entered into a 3-year program of intense and proactive TA based on the ISF to learn how to apply an adaptation of GTO (Promoting Science-Based Approaches Getting To Outcomes, PISBA-GTO) to their teen pregnancy prevention programs. Using semi-structured interviews, the partnering organizations were assessed at three points in time, pre-TA (12 months), post T/TA (20 months) and for their performance of the steps of GTO in their work. The seven organizations which participated in T/TA until the end of the project received an average of 76 h of TA and 112 h of training per organization. Interview results showed increased performance at all 10 steps of PISBA-GTO by these organizations when conducting their teen pregnancy programs. These results suggest targeted and proactive TA can successfully bridge the gap between research, training and practice by using a three part delivery system, as prescribed in the ISF, which relies on an intermediary prevention support system to ensure accurate and effective translation of research to the everyday work of community-based practitioners.

Número de acesso: CCC:09031495906010

ID Publicado: 372223816

ISSN: 0091-0562

Registro: 25 de 50

Autor(es): Feller, J; Feller, Joseph; Finneegan, P; Finneegan, Patrick; Hayes, J; Hayes, Jeremy; O’Reilly, P; O’Reilly, Phillip

Título: Orchestrating sustainable crowdsourcing: A characterisation of solver breakers

Fonte: JOURNAL OF STRATEGIC INFORMATION SYSTEMS

Volume: 21

Edição: 3

Páginas: 246-262

Publicado: SEP 2012

Resumo: Examples of peer innovation have revealed that intellectual property (IP) need not only be sourced through existing hierarchical or market relationships. Rather IP can be acquired from individuals and firms with whom an organization has no prior relationship. In such cases, intermediary, operating as an innovation exchange or matchmaking, frequently facilitates the development and acquisition of IP. This paper examines one type of intermediary in the "innovation brokerage" for IP, which enables innovation exchanges between organizations and unknown external firms and individuals (i.e., a crowdsourcing process). While the commercial success of solver brokerages indicates the potency of arguments concerning the potential of crowdsourcing, little is known about the operation of such brokerages or the crowdsourcing processes that they enable. This paper examines recent research on innovation http://apps.webofknowledge.com/OutboundService.do?action=go&displayCited=Rel=true&displayTimesCited=true&displayUsage=inter/intra&view...
networks, crowdsourcing, and electronic marketplaces to identify three processes (knowledge mobility, appropriability, and stability) that encourage or 'orchestrate' crowdsourcing. Using a field study of four Soler Brokerages, an innovation seeking organization, as well as 15 innovation providers (i.e., members of the 'crowd'), the paper illustrates the ways in which the three orchestration processes are enhanced in Soler Brokerages. It reveals that while knowledge mobility and appropriability processes can be enhanced by factors under the control of the Soler Brokerage, stability is largely determined by innovation seeking agents' and the innovation providers. The paper concludes, that broken-provider value-added 'orchestration' services need to enable knowledge mobility and appropriability, and to ensure that 'unsuccessful' innovation seeking and providers appropriate sufficient value to participate again. (C) 2012 Elsevier Ltd. All rights reserved.

Número de acesso: CCC:0030-5388/00/00027

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Registro 26 de 50

Autor(es): Davies, T; Davison, Tim; Edwards, D; Edwards, Duncan
	Título: Emerging Implications of Open and Linked Data for Knowledge Sharing in Development
	Fonte: IDS BULLETIN-INESTITUTE OF DEVELOPMENT STUDIES

Volume: 43
Edição: 5
Páginas: 11-17
Publicado: SEP 2012

Resumo: Movements towards open data involve the publication of datasets (from metadata to publications, to research, to operational project statistics) online in standard formats and without restrictions or reuse. A number of open data outputs are publicized as linked data, creating a web of connected datasets. Governments, companies and non-governmental organizations (NGOs) across the world are increasingly exploring how the publication and use of open and linked data can have impacts on governance, economic growth and the delivery of services. This article outlines the historical, social and technical trajectories that have led to current interest in, and practices around, open data. Drawing on three example cases of working with open and linked data it takes a critical look at issues that development sector knowledge intermediaries may need to engage with to ensure the socio-technical innovations of open and linked data work in the interests of greater diversity and better development practice.

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Registro 27 de 50

Autor(es): Castrogiovanni, G; Castrogiovanni, Giaj; Uremovich, J (Uremovich, Joseph); Mai Verde, T; Mai Verde, Francisco
	Título: Variations in SME Characteristics and the Use of Service Intermediaries for R&D
	Fonte: CANADIAN JOURNAL OF ADMINISTRATIVE SCIENCES-REVUE CANADIENNE DES SCIENCES DE L'ADMINISTRATION

Volume: 29
Edição: 2
Páginas: 154-164
Publicado: JUL 2012

Resumo: Large companies increasingly look externally for opportunities to enhance innovation, which has resulted in closer study of innovation systems. We examined the role of service intermediaries (universities, technology centers, and consultants) within these systems using a sample of predominately small- and medium-sized enterprises located in Valencia, Spain. As with studies of large companies, absorptive capacity (e.g., research and development expenditure) was positively related to the likelihood that a firm would engage in service collaborations. However, the size of collaboration was higher relative to studies dominated by larger companies. Also, there were differences in the patterns of firm characteristics associated with the use of specific services. For example, the level of SME expert activity related positively to the use of technology centers, but negatively to university collaborations.

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Número de acesso: CCC:0030-5388/0000007

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Registro 28 de 50

Autor(es): Petchler, H; Petchler, Harald; Voigler, M; Voigler, Michael
	Título: How to promote cooperation in the hospitality industry: Generating practitioner-relevant knowledge using the GAREK qualitative research strategy
	Fonte: INTERNATIONAL JOURNAL OF CONTEMPORARY HOSPITALITY MANAGEMENT

Volume: 24
Edição: 6
Páginas: 923-943
Publicado: 2012

Resumo: Purpose - While it is possible to classify the previously suggested conditions to the promotion of Interorganizational cooperation as either referring to strategic interdependence or to structural and procedural conditions, it is unclear which approach is more critical to the promotion of local and regional cooperation in the hospitality industry at the network level. Therefore, the purpose of this paper is twofold: to inductively develop propositions regarding the promotion of GAREK cooperation in order to evaluate the relative importance of the two conflicting positions, and to demonstrate the utility of GAREK to the development of these propositions.

http://apps.watsonknowledge.com/DubfoundService.do?action=nsRcdisplayCidRcdisplayRcdisplayTimesIdRcdisplayUsageinfo=true&view...
Design/methodology/approach - Following a mixed-methods case study design, data were gathered by conducting 15 open interviews in a South Tyrolean destination and analyzed with the aid of the GATEK technique.

Findings - The results suggest that the structural and procedural conditions are relatively more critical to the promotion of interorganizational cooperation in the hospitality industry. First, the balancing of the efficiency and legitimacy dimensions via the organizational and procedural design of the cooperation seems crucial: second, intermediaries’ organizations, if characterized by good corporate governance, may have a positive influence on cooperation; and third, the application of GATEK-like tools may facilitate the finding of commonly shared solutions in cooperative configurations.

Practical implications - The research reveals actionable insights regarding the improvement of interfirm cooperation by offering managers tangible measures and a tool for implementing the theoretical concepts.

Originality/value - The paper is original because it contributes to evaluating the two main approaches to the promotion of cooperation and because it proposes an innovative methodology (GATEK) for practice-oriented qualitative research.

Número de acesso: CCC: 0030592217660006

Registre 33 de 50

Autor(es): Ordanini, A (Ordanini, Andrea); Miceli, I (Miceli, Lucia); Pizzetti, M (Pizzetti, Maria), Parasuraman, A (Parasuraman, Anuradha)

Título: Crowdfunding: transforming customers into investors through innovative service platforms

Fonte: JOURNAL OF SERVICE MANAGEMENT

Volume: 22

Edição: 4

Páginas: 443-470

Publicado: 2011

Resumo: Purpose - The purpose of this paper is to analyze the emerging crowdfunding phenomenon, that is a collective effort by consumers who network.
and pool their money together, usually via the Internet, in order to invest in and support efforts initiated by other people or organizations. Successful service businesses that organize crowd-funding and act as intermediaries are emerging, attaching to the viability of the means of attracting investment.

Design/methodology/approach - The research employs a "grounded theory" approach, performing an in-depth qualitative analysis of three cases involving crowd-funding initiatives: Sellabac in the music business, Trampolix in financial services, and Kapital in non-profit services. Three cases were selected to represent a diverse set of crowd-funding operations that vary in terms of risk, returns for the investor and type of payoff associated to the investment.

Findings - The research addresses two research questions: how and why do consumers turn into crowd-funding participants? and how and why do service providers set up a crowd-funding initiative? Concerning the first research question, the authors' findings reveal product, features, characteristics, roles and tasks, and investment size of crowd-funding activity from the consumer's point of view. Regarding the second research question, the authors' analysis reveals purposes, service roles, and network effects of crowd-funding activity investigated from the point of view of the service organization that set up the initiative.

Practical implications - The findings also have implications for service managers interested in launching and/or managing crowd-funding initiatives. Originality/value - The paper addresses an emerging phenomenon and contributes to service theory in terms of extending the consumer's role from co-product and co-creator to investor.

Número de acesso: CCC 00025937:16020002

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 ISSN: 1757-5118

Resumo: Knowledge-intensive Business Services (KIBS) are intermediary firms which specialise in knowledge screening, assessment and evaluation and transact professional consultancy services. The remarkable size of this broad class of activities is partially measured by the product of modern knowledge economies within which increasing specialisation induces the need for professional agents in markets for external knowledge. This paper addresses critically a conceptual flaw in the specialised literature which portrays KIBS as a homogeneous group of activities using official data on occupational information in the United States. We observe and analyse high variety across KIBS sectors occupational structures and skill requirements. Crown Copyright (C) 2010 Published by Elsevier B.V. All rights reserved.
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03/08/2018

(1) To give special attention to the foundations of managerial and technical knowledge in this emerging arena of knowledge. Already we have seen the computer science discipline embrace these ideas of finding new directions in design science toward making services-oriented computing approaches more effective, setting the stage for the development of a new science service science, management, and engineering (SSME). This paper addresses the issues from the point of view of service science as a formal scientific area for IS research. We propose a robust framework for evaluating the research on service science, and the likely outcomes and new directions that we expect to see in the coming decade. We emphasize the multiple roles of producers and consumers of services-oriented technology innovations, as well as value-adding seller into mediaries and systems integrators, and standards organizations, user groups, and regulators as observers. The analysis is cast in multidisciplinary terms, including computer science and IS, economics and finance, marketing, and operations and supply chain management. Evaluating the accomplishments and opportunities for research related to the SSME perspective through a robust framework enables in-depth assessment in the present, as well as an ongoing evaluation of new knowledge in this area, and the advancement of the related management practice capabilities to improve IT services in organization.

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Registros 35 de 50

Autor(es): Cochr, A (Cochr, Andy); Hughes, A (Hughes, Alan)
Título: Never mind the quality, feel the width: University-industry links and government financial support for innovation in small high-technology businesses in the UK and the USA
Fuentes: JOURNAL OF TECHNOLOGY TRANSFER
Volume: 35
Edición: 1
Páginas: 66-91
Publicación: FEB 2010

Resumen: In this paper we use a size and industry matched sample of over 1,900 UK and US businesses for the period 2001-05 in the manufacturing and business services sectors to analyze the relative “strength” of the university-industry ecosystems in which these firms operate in the two economies. Our analysis shows that in both countries universities per se play a quantitatively smaller role as a source of knowledge for business innovation than either the business sector itself or a variety of organisations intermediating between the university and business sector. Our analysis reveals a much more diffuse university-industry ecosystem in the UK, in which a higher proportion of business claim links external to themselves in their pursuit of knowledge for innovation and a higher proportion report directly connecting with universities. US firms are more likely to access knowledge through a co-orientation of business and intermediary sources and are less likely to have established formal collaborative or ownership agreements in the 3 years prior to the survey. We also find, however, that a higher proportion of US firms place a very high value on the connections they have with universities and are much more likely to commit resources to support such innovation related university interactions. A similar pattern of diffuse but weaker links characterizes the supply of public sector financial assistance for innovation in our sample firms. UK firms are more likely to be in receipt of assistance, but receive less per firm in absolute terms and relative to their total expenditures. It appears that the UK university-industry ecosystem is characterized by a greater width than quality of interaction.

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Registros 36 de 50

Autor(es): Inkhan, T (Inkhan, Tommi); Soursa, K (Soursa, Kale)
Título: Intermediaries in Regional Innovation Systems: High Technology Enterprise Survey from Northern Finland
Fuentes: EUROPEAN PLANNING STUDIES
Volume: 15
Edición: 2
Páginas: 161-187
Publicación: 2010

Resumen: Intermediaries play an important role in national as well as in regional innovation systems, especially in innovation policy. In linking organizations within an innovation system, intermediaries are focusing on technology transfer, commercialization of ideas and funding. This research focuses on the role of intermediaries in high-technology product development in northern Finland. Based on a survey of 168 high-technology enterprises, funding services are regarded as the most important activity of intermediaries. Our results show that finance matters: a key actor within the Finnish innovation system is term of direct funding and indirect collaborative resourcing; the Finnish Funding Agency for Technology and Innovation (TEES), is considered the most important public sector organization in private sector product development. The survey also reveals that growth-driven companies with emphasis on product innovation and high levels of investment in research and development for increasing their annual turnover benefit from being intermediaries.

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ISSN: 0965-411X

Registros 17 de 50

Autor(es): MacPherson, A (MacPherson, Alan); Vrechan, V (Vrechan, Vida)
Título: The Outsourcing of Industrial Design Services by US manufacturing companies

Page 163
Resume: This article examines the extent to which US producers of durable goods outsource design and development work to external organizations. Evidence from a sample of sixty-eight large manufacturing companies suggests that independent design consultancies and other design service vendors contribute significantly to the product development efforts of major corporations. External organizations are increasingly expected to deliver innovative design solutions with respect to materials selection, aesthetics, ergonomics, product performance, and ease of manufacture. These vendors vary from single-person outfits to firms that employ over 1,000 people. We find that the outsourcing of industrial design has been driven primarily by the ability of external companies to offer innovative services that complement the core competencies of client firms. Our data also point to the rising importance of design service imports, notably from the United Kingdom, France, and Italy. Such imports currently account for about 15 percent of externalized design expenditures, compared to less than 15 percent 10 years ago.

Número de acceso: CCC0000739012000001
ISSN: 0160-5116

Registro 38 de 59
Autor(es): Mar-Verdú, F (Mar-Verdú, Francisco); Seriano, DR (Ribeiro Seriano, Domingos); Doben, SR (Rigobert Doben, Salvador)
Título: Regional development and innovation: the role of services
Fuente: SERVICE INDUSTRIES JOURNAL
Volume: 30
Edición: 1
Páginas: 633-641
Publicado: 2010

Resume: This special issue examines the role of services within the relationship between regional development and innovation. The analysis described here clearly shows the importance of the institutional elements that go to make up each regional environment. These institutional elements are not only formal and informal but also include intermediary organizations and services, in particular, knowledge-intensive ones. Posturing services based on connections and transfer (technological centres etc.), constitutes a strategic line of action in regional innovation policy. These services have a dual purpose. They both enable interaction between agents located in the same area and promote connections between firms in networks outside the region.

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Registro 39 de 59
Autor(es): Hine, VC (Vine, damien Charles); Parker, M (Parker, Rachael); Ireland, J (ireland, dan)
Título: The knowledge exchange intermediary as service provider: a discussion and an Australian case
Fuente: SERVICE INDUSTRIES JOURNAL
Volume: 30
Edición: 1
Páginas: 713-726
Publicado: 2010

Resume: The critical impact of innovation on national and the global economies has been discussed at length in the literature. Economic development requires the diffusion of innovations into markets. It has long been recognized that economic growth and development depends upon a constant stream of innovation. Governments have been keenly aware of the need to ensure this flow does not dry up a bridge and have introduced many and varied industry policies and interventions to assist in seeding, supporting and diffusing innovations. In Australia, as in many countries, Government support for the transfer of knowledge espoused from publicly funded research has resulted in the creation of university technology exchange intermediaries. These intermediaries are themselves service organizations, seeking innovative service offerings for their markets. The choice for most intermediaries is generally a dichotomous one, between market pull and technology push knowledge exchange programmes. In this article, we undertake a case analysis of one such innovative intermediary and its Fp7 programme. We then compare this case with other successful intermediaries in Europe. We put forward a research proposition that the design of intermediaries programmes must match the service type they offer. That is, market-pull programmes require market-pull design, in close collaboration with industry, whereas technology programmes can be problem-solve innovations where demand is latent. The discussion reflects the need for an evolution in knowledge transfer policies and programmes beyond the first generation sheltered in with the US Eshk Dole Act (1980) and Stevenson-Wydler Act (1982) - the data analysis is a case study comparison of market-pull and technology push programmes, focusing on primary and secondary social economic benefits (using both Australian and international comparisons).

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Registro 40 de 59
Autor(es): Zhang, Y (zhang, yan); Li, F (li, haiying)
Título: INNOVATION SEARCH OF NEW VENTURES IN A TECHNOLOGY CLUSTER: THE ROLE OF TIES WITH SERVICE INTERMEDIARIES
Fuente: STRATEGIC MANAGEMENT JOURNAL
Volume: 31
Edición: 1
Páginas: 88-109

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03/08/2018

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Publicado: JAN 2010

Resumen: In this study, we examine the relationships between new ventures' ties with service intermediaries (i.e., technology service firms, accounting and financial service firms, law firms, and talent search firms) and their product innovation in the context of a technology cluster. Because service intermediaries sit at the intersection of many firms, organizations and industries, they maintain successive networks in a cluster. We propose that new ventures' ties with service intermediaries enable them to play a role in their network and contribute to the ventures' product innovation by broadening the scope of their external innovation search and reducing their search cost. Moreover, we argue that the positive relationships between new ventures' ties with service intermediaries and their product innovation will become stronger when search in the networks in the cluster is more important to the ventures' product innovation. Based on a sample of new ventures in a technology cluster in China, our results support these arguments. Copyright © 2009 John Wiley & Sons, Ltd.

Número de acceso: CCC:000272543000006
ISSN: 0143- 0705

Registro 43 de 59

Autor(es): MMP, X (MMP, Xuan)
Título: A Global Review of Insurers’ Industry Responses to Climate Change
Fonte: GENEVA PAPERS ON RISK AND INSURANCE ISSUES AND PRACTICE
Volume: 34
Edição: 1
Páginas: 323-359
Publicado: JUL 2009

Resumo: A dynamic of insurers is adapting its business model to the realities of climate change. In many ways, insurers are still catching up to mainstream science and to their customers, which, in response to climate change and energy variability, are increasingly changing the way they construct buildings, transport people and goods, design products and produce energy. Customers, as well as regulators and shareholders, are eager to see insurers provide more products and services that respond to the “greening” of the global economy, expand their efforts to improve disaster resilience and otherwise be proactive about the climate change threat. Insurers are increasingly recognising the issue as one of “enterprise risk management” (ERM), one cutting across the domain of underwriting, asset management and corporate governance. Their responses are becoming correspondingly sophisticated. Based on a review of more than 300 source documents, plus a direct survey of insurance companies, we have identified 434 specific activities from 244 insurance entities from 29 countries, representing a $1.2 trillion per year year-on-year increase in activity. These entities collectively represent $2.1 trillion in annual premiums and $1.3 trillion in assets, while employing 2.2 million people. In addition to activities on the part of 189 insurers, eight reinsurers, 20 intermediaries and 27 insurance organisations, we identified 44 non-insurance entities that have collaborated in these efforts. Challenges and opportunities include bringing promising products and services to scale, continuing to identify and fill market and coverage gaps and identifying and confirming the veracity of green improvements.

There is also need for convergence between sustainability and disaster resilience, greater engagement by insurers in adaption to unwaviable climate changes and to clarify the role that regulators will play in moving the market. It has not yet been demonstrated how some insurance firms might respond to climate change and a number of market segments have not yet been served with a single green insurance product or service. As insurer activities obtain more prominence, they also will be subject to more scrutiny and expectations that they are not simply greenwashing. The Geneva papers (2009) 34, 523-559. doi: 10.1057/jgr.2009.14

Número de acceso: CCC:000266496900002
ISSN: 1018-5955

Registro 42 de 59

Autor(es): Diaz-Ponton, J; Diaz-Ponton, Jose M.; Cazorla, A; Cazorla, Adolfo; de las Acas, I; de las Rias, Ignacio
Título: Policy Support for the Diffusion of Innovation among SMEs: An Evaluation Study in the Spanish Region of Madrid
Fonte: EUROPEAN PLANNING STUDIES
Volume: 17
Edição: 3
Páginas: 365-387
Publicado: 2009

Resumo: Innovation is increasingly supported by public authority action focused on regions and small and medium enterprises (SMEs). In this line, the region of Madrid launched a programme to create Technology Diffusion Centres (TDCs) in order to promote innovation culture among the SMEs of the region. This article analyses the nature of innovation activities in these firms, and the acumen of the TDCs through their work with them. Different types of TDCs are compared according to the approach they apply and the agent to which they were linked. Ten indicators were used to examine the degree of embeddedness and performance of the different TDCs among the SMEs. Results show that a sectoral approach in conjunction with links to business association is the best option for the TDCs in urban and industrial areas. However, in the periphery or less favourable areas, such as rural ones, a territorial approach in co-operation with links to local entities is the most effective alternative.

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Registro 43 de 59

Autor(es): Reiffensteu, T; Reiffensteu, Tim
Título: Specialization, Centralization, and the Distribution of Intermediaries in the USA and Japan
Fonte: REGIONAL STUDIES
Volume: 43
Edição: 4
Páginas: 571-588
Publicado: 2009
DOI: 10.1080/02691440903184755
Resumo: Reiffensteu T. Specialization, centralization, and the distribution of patent intermediaries in the USA and Japan, Regional Studies. The preparation, examination and litigation of patents requires a complex division of labour. The inventors and firms that generate patents have been well covered in the geographical literature, but the same cannot be said of the producer services whose job it is to shepherd patents through patent offices and the courts. This

paper explores the spatial distribution of patent intermediaries (agents and attorneys) in the USA and Japan with a view to shedding light on how the institutional architecture of national patent systems shapes the geographies of patent practitioners. This comparison reveals important differences in their locational preferences at various scales of analysis. US patent intermediation is geographically decentralized and practiced in conjunction with other facets of business law, while in Japan the situation is far more specialized and concentrated in Tokyo. [Image omitted]

Número de acceso: CCC 00203368/80000005
ISSN: 0034-3404

Registro de DO

Título: Intermediary services in the markets for technology: Organizational antecedents and performance consequences
Fonte: ORGANIZATION STUDIES
Volume: 29
Edição: 7
Páginas: 1063-1075
Publicado: JUN 2008
DOI: 10.1177/0034034507313131
Resumo: The external commercialization of technology assets, e.g. by means of out-licensing, has recently gained in importance. Despite this increase in technology transactions, many industrial firms experience major organizational difficulties in outward technology transfer because of imperfections in the markets for technology. Drawing on a resource-based perspective, we therefore analyse whether firms can overcome market inefficiencies by relying on innovation intermediaries such as consulting companies and Internet platforms. We test five hypotheses regarding organizational antecedents and performance consequences of intermediary services with data from 152 firms spanning multiple industries. The empirical findings show that the role of technology intermediaries as general facilitators of interorganizational technology transactions has to be questioned. On this basis, the study has major implications for research into intermediaries, technology exploitation, licensing, open innovation and organizational boundaries.

Número de acceso: CCC 00030810/60000004
ISSN: 0170-8406

Registro de DO

Título: Matching demand and supply in the agricultural knowledge infrastructure: Experiences with innovation intermediaries
Fonte: FOOD POLICY
Volume: 33
Edição: 3
Páginas: 268-276
Publicado: JUN 2008
DOI: 10.1016/j.foodpol.2007.10.001
Resumo: The privatization of agricultural research and extension establishments worldwide has led to the development of a market for services designed to support agricultural innovation. However, due to market and systemic failures, both supply side and demand side parties in this market have experienced constraints in effecting transactions and establishing the necessary relationships to engage in demand-driven innovation processes. To mitigate these constraints, a field of intermediary organizations has emerged to assist agricultural entrepreneurs to articulate demand, forge linkages with those that can provide innovation support services, and manage innovation processes. This article aims to give an overview of the different kinds of so-called innovation intermediaries that have emerged in The Netherlands and to report on their contributions and the tensions that are being experienced with regard to their functioning. The article concludes with a discussion in which it is argued that the state should play a role as a “market facilitator by funding such innovation intermediaries.” (C) 2007 Elsevier Ltd. All rights reserved.

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Título: Balancing multiple interests: Embedding innovation intermediation in the agricultural knowledge infrastructure
Fonte: TECHNOVATION
Volume: 74
Edição: 6
Páginas: 364-379
Publicado: JUN 2008
DOI: 10.1016/j.technovation.2007.05.005
Resumo: The purpose of this paper is to provide insights into the emergence, embedding and optimal design of intermediaries who act as a bridge between demand and supply in the agricultural knowledge infrastructure. Using a case study approach, the paper focuses on the relationships between a for-profit intermediary organisation in The Netherlands and several parties for which it performs various bridging functions, i.e., coupling these parties in particular innovation processes and channelling their subsequent interactions. The findings suggest that although innovation intermediation is seen as beneficial, tensions emerge regarding the innovation intermediary’s governance structure, the way it generates its revenues and the different activities it performs. A clearer delineation between different activities has to be made in order to minimize competition with other providers of R&D and knowledge intensive business services, and to protect its credibility and impartiality. Furthermore, some tasks of innovation intermediaries are best funded publicly, whereas others should be funded privately. The originality of the paper lies in the fact that it focuses on relationships between an innovation intermediary and the supply side of the knowledge infrastructure, whereas typically the focus is on interactions with end-users of knowledge and information. (C) 2007 Elsevier Ltd. All rights reserved.

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Resumo: This paper assesses the competitive factors associated with company growth in the US industrial design sector. This small but technologically advanced sector delivers critical innovation inputs to firms that produce durable goods. Evidence from a survey of 85 US design companies suggests that competitive success hinges upon service diversity. Specifically, the most commercially successful companies have diversified their service offerings beyond product or component design. These firms have developed strategic competencies in fields such as contract research, prototype development, product testing, market analysis and even advertising. Although most US design companies are small to medium-sized enterprises, successful firms do not differ from their less successful counterparts in terms of employee size, occupational structure, regional location or market focus (client sectors). Instead, the key differences lie in service diversity and the quality of human capital. The paper concludes with a brief discussion of the implications of the empirical findings for future research on the dynamics of the design industry.

Número de acesso: CCC 0002-6237/10000001
ISSN: 1366-2176

Registro 54 de 50

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<td>Graham, B (Graham, Barry)</td>
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<td>INNOVATIONS IN TELECOMMUNICATIONS</td>
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<td>Volume: 6</td>
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<td>Páginas: 55-59</td>
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<td>Publicado: APR-JUN 2007</td>
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Resumo: This article examines the challenges facing those in the telecommunication industry charged with innovation and the application of a new third-party intermediary service that has been successful in other industries addressing those challenges.

Número de acesso: CCC 0002-6237/10000008
ISSN: 1477-473X

Registro 49 de 50

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<td>GROUNDING GOVERNANCE IN DIALOGUE: DISCOURSE, PRACTICE AND THE POTENTIAL FOR A NEW PUBLIC SECTOR ORGANIZATIONAL FORM IN BRITAIN</td>
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<td>Publicado: 2007</td>
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DOI: 10.1111/j.1467-9229.2007.06533.x

Resumo: Drawing on debates about the nature and significance of quasi-autonomous government organizations, this article asks what happens when trends towards agency creation by government and trends towards stakeholder participation in policy processes come together. Issues are considered through an examination of the National Institute for Clinical Excellence, one of a series of new regulatory bodies set up in Britain after 1997 and given the task of providing national guidance on treatments and care for people using the health service. The analysis points to the emergence of a new form - the dialogic intermediary organization. Such an organization, while maintaining close and informal links with government, attempts to build legitimacy for its activities through multiple and potentially competing engagements with diverse constituted publics. The potential theoretical and political importance of dialogic intermediary organizations, and some implications for their fuller empirical study are briefly explored.

Número de acesso: CCC 0002-6237/10000004
ISSN: 0033-2938

Registro 50 de 50

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<tr>
<td>Harrison, T (Harrison, Tina); Wolfe, K (Wolfe, Katherine)</td>
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<td>A TIME-BASED ASSESSMENT OF THE INFLUENCES, USES AND BENEFITS OF INTERMEDIARY WEBSITE ADOPTION</td>
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<td>Páginas: 1082-1093</td>
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<td>Publicado: DEC 2006</td>
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DOI: 10.1016/j.jim.2006.09.004

Resumo: An enabler of distribution chains has many advantages; a key element is the company website which combines sales and marketing functions. Intermediaries websites interface between the supplier and the marketplace, consequently. Adoption and use of websites by intermediaries can benefit an extended supply chain. We examined intermediary commerce development, focusing on the adoption and use of websites, the factors influencing initial adoption, the characteristics of adopters and patterns of website use. Based on interviews and survey data from financial services intermediaries, we used Rogers' model of innovation to identify adopter groups. Statistically significant differences were found between the five adopter categories in terms of key company characteristics, key factors influencing the initial decision to develop a website and its subsequent use. There are implications for providers in widening intermediary participation in website technology. © 2005 Elsevier B.V. All rights reserved.

Número de acesso: CCC 0002-6237/10000008

http://apps.wojaknowledg.com/DubloadService.do?action=go&appId=CaidRaf=true&appId=timesCaid=true&displayUsageInfo=true&vie... 16/17
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ISSN: 0377-7206
Registro 1 de 20
Autor(es): Lockett, N., Lockett, Nigel; Brown, D.H. (Brown, David H.)
Título: Aggregator and the role of trusted third parties in SME e-business engagement - A regional policy issue
Fonte: INTERNATIONAL SMALL BUSINESS JOURNAL
Volume: 24
Edição: 4
Páginas: 375-404
Publicado: AUG 2006
DOI: 10.1772/066426606S3559
Resumo: It is against the background of low engagement by SMEs in e-business that this article seeks to highlight the potential importance of aggregation and the role of trusted third parties in facilitating higher levels of involvement. The article is based on an ongoing SME e-business research programme and reports on some recent research on SMEs that were using high complexity e-business applications; it explores the extent to which the research findings could address the core concern of low engagement. This qualitative case study based research includes analysis of data collected from 13 community intermediaries, acting as trusted third parties. It concludes that the role of community intermediaries appears to be central to the adoption of critical e-aggregation applications provided by service providers. For policymakers, this important role of critical e-aggregation applications in facilitating e-business engagement by SMEs has emerged as part of this research but there is limited evidence of policy initiatives that reflect this.
Número de acesso: CCC0000239656700003
ISSN: 0266-2420

Registro 2 de 20
Autor(es): Anand, BN (Anand, Bhushan N.); Gaetovic, A. (Gaetovic, Alexander)
Título: Relationships, competition and the structure of investment banking markets
Fonte: JOURNAL OF INDUSTRIAL ECONOMICS
Volume: 54
Edição: 2
Páginas: 51-199
Publicado: JUN 2006
DOI: 10.1111/j.1467-8851.2006.00293.x
Resumo: It is well known that competition can destroy incentives to invest in firm-specific relationships. This paper examines how the tension between relationships and competition is resolved in the investment banking market, which for decades has been characterized by both relationships and competition. The model studies the interaction of relationships of four different dimensions of competition: non-exclusive relationships, competition from arm's-length intermediaries, non-price competition, and exogenous entry. The analysis shows how market equilibrium adjusts so that relationships are sustained in the face of such competition. Banks are shown to establish relationships without either local or aggregate monopoly power. The model rationalizes two distinct empirical regularities of market structure: the invariance of market concentration to market size, and a pyramid market structure with an oligopoly comprising similar-sized players at the top and a large number of small banks at the bottom. The analysis may also shed light on the industrial organization of other professional service industries.
Número de acesso: CCC000038964500003
ISSN: 0222-1921

Registro 3 de 20
Autor(es): Howells, J. (Howells, Jeremy)
Título: Intermediation and the role of intermediaries in innovation
Fonte: RESEARCH POLICY
Volume: 35
Edição: 5
Páginas: 734-749
Publicado: JUN 2006
DOI: 10.1016/j.repost.2006.03.005
Resumo: This paper investigates the issue of intermediation and the role of intermediaries in the innovation process. The aim of this paper is threefold. Firstly, to review and synthesise the literature in this field; from this to develop a typology and framework of the different roles and functions of the intermediation process within innovation, lastly to try and operationalise this typology within the context of UK using case study material. (c) 2006 Elsevier BV. All rights reserved.
Número de acesso: CCC000038964500003
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<td>Howells, Jeremy</td>
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ISSN: 0301-5154

Registro 4 de 20
Autor(es): Cook, M. (Cook, M. B.); Bhamra, TA (Bhamra, T. A.); Lemon, M. (Lemon, M.)
Título: The transfer and application of Product Service Systems: from academia to UK manufacturing firms
Fonte: JOURNAL OF CLEANER PRODUCTION
Volume: 14
Edição: 17
Páginas: 1455-1465
Publicado: 2006
DOI: 10.1016/j.jclepro.2006.01.018
Resumo: The serialisation of many advanced economies is thought by many commentators to provide opportunities to move society away from
http://apps.webofknowledge.com/OutboundService.do?action=go&displayCitId=refs:1&cid=ws&via=ws&...
unsustainable patterns of production and consumption. The concept of the Product Service System (PSS) has been conceptualised in academic circles to assist in the attainment of desirable futures. This paper reports the findings of research conducted as part of the SCILD project which considered the transfer and application of the PSS concept from academia to industry in the UK and Ireland. It draws upon theories from evolutionary economics to provide a rationale for the transfer of the PSS concept and the role of the PSS concept in achieving desirable technological change. The paper also identifies an appropriate methodology to transfer the PSS concept from UK academic circles to industry and the factors which impact upon, and importantly lead to, the successful completion of this process. The combination of theoretical insight with case study research is used to develop a framework that could help UK based intermediaries to complete the transfer of the PSS concept. This is seen as an integral part of public policies aimed at stimulating sustainable patterns of production and consumption. © 2005 Elsevier Ltd. All rights reserved.

Número de acceso: CCC:0000-4858:400002

Identificados de autor:

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Kohler, Mark 0000-0001-8733-0372

ISSN: 0959-6520

Registros de 20

Autor(a): Belay, JC (Belay, JC), Kohler, Mark

"Title: Urban environments, spatial fragmentation and social segregation in Latin America: Where does innovation lie?"

Fonte: HABITAT INTERNATIONAL

Volume: 29
Edição: 4
Páginas: 62 / 94

Publicado: DCL 2005
DOI: 10.1036/j.habitaint.2004.05.003

Resumo: To "review the urban question" in terms of sustainable development, the premise is formulated that improving infrastructures, equipment and services to preserve and protect urban and rural environments is costly and generates expenses of all kinds at economic and social levels. Without the introduction of equalisation mechanisms, these expenses will increase inequalities between different parts of the urban population. As confirmed by 2 Latin American case studies in Buenos Aires, Buenos Aires, the quality of urban environment depends directly on improving living conditions for the resident population. The aim is to assist the poor in developing a social dialogue service for the families living in the informal settlements of La Paz, or to extend water supply to the poorer areas on the outskirts of Buenos Aires. The collective benefits of these "innovations" are self-evident. However, understanding the environmental issues involved and evaluating the social impact of these innovations, means examining what motivates their implementation.

The first difficulty was in finding financial and economic information on the global cost of the new technologies, due to the lack of managerial culture and the discretionary attitude of private enterprises and public administration.

A second observation is that the social dimension of the environmental upgrading process in Latin America cities has been neglected by the main urban decision makers. In all the cases, the evaluation of the projects' implementation clearly demonstrates that social issues cannot be dissociated from political ones. Although the players themselves often find it difficult to estimate economic costs, these are nonetheless real and represent burdens that should be distributed equitably among the benefactors of such services; but which are, in practice, often viewed in terms of profit. This leads to conflicts between different population groups, the political authorities and private intermediaries. Rather than viewing technological action as an "unique" source of innovation, we must consider its global dimension via the social practices it generates. On the other hand, we would reposition every specific event in its immediate environment and see how it reflects contemporary macro-social processes, in a world of "globalisation". (c) 2004 Elsevier Ltd. All rights reserved.

Número de acceso: CCC:0000-3186:400002

ISSN: 0337-1075

Registro de 20

Autor(es): Blythe, M (Blythe, M), Monck, A (Monck, A)

"Title: Neighbours: adapting HCI methods to cross the digital divide"

Fonte: INTERACTING WITH COMPUTERS

Volume: 17
Edição: 1
Páginas: 35-55

Publicado: JAN 2005

Resumo: This paper describes the development of Neighbours, an online shopping scheme that widens internet access to older people via volunteer telephone intermediaries. It outlines the processes of: problem identification, designing the telephone interaction, the financial model and the interface for the volunteer. It describes the application and adaptation of human-computer interaction (HCI) techniques to address the needs of the local charity that co-developed the scheme. The paper begins by reporting the ethnographic work that led to the scheme; it then describes the pilot study conducted with Age Concern, York. It maps the various possible configurations for the scheme in a series of financial models expressed in tree diagrams and goes on to describe the use of pastiche scenarios in developing designs. Pastiche scenarios are drawn from fiction as a resource to explore, in an engaging manner, the social issues raised by technological innovation: the paper presents extracts from three such scenarios that were used to reason about dependability issues with Age Concern staff. The scheme is ongoing and plans are currently being made to extend it by recruiting university staff and other office workers as volunteer intermediaries. It is hoped that the scheme will become widely available across the city and in other locations around the UK. It is argued that you view telephone intermediaries can bridge digital divides and make Internet services accessible to those excluded either by age, disability or lack of resources. The development of the scheme is a case study in the ways that HCI techniques can be adopted and adapted in order to design for (and with) society. (c) 2004 Elsevier BV. All rights reserved.

Número de acceso: CCC:0002-2245:500003

ISSN: 0953-5438

Registro de 20

Autor(es): Scott, JH (Scott, JH), Scott, JE (Scott, JE)

"Title: On models for the operation of a class of electronic marketplaces"

Fonte: OMEGA INTERNATIONAL JOURNAL OF MANAGEMENT SCIENCE

Volume: 32
http://apps.webofknowledge.com/DlboundService.do?action=go&displayCitation=false&ref=true&displayTimesCited=true&displayUsageInfo=true&viewT...
Schaut, Dietrich R. [2001]
ISSN: 0955-0658
Revista de 8 de 20
Autor(es): Morales, M.F. (Morales, M.F.)
Título: Financial intermediation in a model of growth through creative destruction
Fonte: MACROECONOMIC DYNAMICS
Volume: 1
Edição: 1
Páginas: 363-393
Publicado: JUN 2003
Resumo: This paper presents an endogenous growth model in which the research activity is financed by intermediaries that are able to reduce the incidence of researcher's moral hazard. It is shown that financial activity is growth promoting because it increases research productivity. It is also found that a subsidy to the financial sector may have large growth effects than a direct subsidy to research. Moreover, because of the presence of moral hazard, increasing the subsidy to R&D may reduce the growth rate. It is shown that there exists a negative relation between the financing of innovation and the process of capital accumulation. Concerning welfare, the presence of two externalities of opposite sign stemming from financial activity may cause the no-tax equilibrium to provide an inefficient level of financial services. Thus, policies oriented to balance the effects of the two externalities will be welfare improving.
Número de acesso: CCC:0001/0989/9000003
ISSN: 1355-1005
Revista de 9 de 20
Autor(es): de Aguilera, A.R. (de Aguilera, A.R.); Padilla, A. (Padilla, A.); Seroros, C. (Seroros, C.); Veciana, J.M. (Veciana, J.M.)
Título: digital economy and management in Spain
Fonte: INTERNET RESEARCH
Volume: 13
Edição: 1
Páginas: 4-16
Publicado: 2003
Resumo: The digital economy is an economic sector that includes goods and services, whose development, manufacturing, merchandising or supply depend on critical digital technologies. The digital economy can be conceptualized into four different aspects: on the one hand, it consists of infrastructure and applications, and, on the other, electronic commerce and new intermediaries. This nano-structure can be directly traced to how business generates revenues. The aim of this paper is to explain what is understood today by digital economy and to identify its dimensions and impact on the firms. For this purpose, it is necessary to develop its theoretical basis. In the second part of this paper, we refer to the results of an empirical research in the Spanish context.
Número de acesso: CCC:0001/0812/64200002
Revista de 10 de 20
Autor(es): Smiths, R. (Smiths, R.)
Título: In Yoloule studies in the 21st century: Questions from a user’s perspective
Fonte: TECHNOLOGICAL FORECASTING AND SOCIAL CHANGE
Volume: 69
Edição: 1
Páginas: 106-112
Publicado: DEC 2002
DOI: 10.1016/S0040-1625(00)00181-0
Resumo: Science-based innovations have played an important role in our society for centuries. In this paper, after a discussion of the concepts of innovation, changes in three major developments in the context of innovation processes are analyzed: social changes in our economy, the broadening of decision-making processes and the emergence of the network society, and changes in the knowledge infrastructure. On the basis of this analysis, questions and challenges confronting the players involved in innovation processes and the management of them are identified and topics for a research agenda for...
Innovation researchers that take into account the needs of those players are formulated. The focus is on the macro and meso level, and the broadening of decision-making on innovation processes acts as an important guiding principle. Three lines of research are distinguished on the research agenda: (1) empirical studies of innovation processes and systems, (2) critical reflection on innovation theory, and (3) analysis and support of decision-making processes. With regard to the first line, case studies of innovation in services, bio sciences, the telecommunication sector, and also the identification of (intangible) thought and output indicators are on the agenda. The reflection on theory (see 2) focuses primarily on innovations in chains and clusters, the role of (knowledge) intermediaries and the interaction between processes and systems. Furthermore, innovation studies should also contribute to the development of new instruments to support decision-making processes. An important basic assumption of this paper is that innovation studies should not only strive to deepen the insight into innovation processes and systems, but also to contribute to the development of new instruments to support decision-making processes. The main conclusion of this paper is that shifts in the context of innovation processes, more particularly the emergence of the "porous society," will lead to a radical transformation of innovation systems in which (knowledge) intermediaries and the quality of the interfaces between users and producers play an increasingly important role.
Resumo: The packaging of industrial food products is one of the most important means of transmitting a product’s image and taste value. When the nature of its interface and its contents are the product of carefully planned imaging, the product has notable advantages in defining its image and product identity. Modern food trends dictate an ever-increasing amount of services. The so-called ‘functional packaging’ and ‘active packaging’ are prime examples of this service. The greatest innovation within this category of products consists literally of their interaction with food. These features create numerous fallouts within all stages of the life-cycle of a product, requiring a complex and multidisciplinary evaluation. The evaluation strategy of services which make this packaging will offer to the consumer is still to be defined and still to be identified within the key applications are the interests of the intermediary links of the production process. This requires the evaluation of the semantic and communicative aspects of the packaging which tend to be confused with the foodstuffs. The individualization of appropriate user profiles, control of logistical and location aspect of production, and a careful analysis of a comprehensive environmental balance, all issues that are parts of the objectives of the European project, Antipod, is hoped. Therefore, the elaboration of these packaging systems will become a motive to try out a more knowledgeable and systematic design process for foodstuffs, in which innovative technology is used to provide effective benefits to the consumer. Copyright (C) 2003 John Wiley & Sons, Ltd.

Número de acesso: CCC9000162467300006

ISSN: 0892-3214

Registro 19 de 20

Autor(es): Allen, F (Allen, F); Gale, D (Gale, D)

Título: Innovations in financial services, relationships, and risk sharing

Fonte: MANAGEMENT SCIENCE

Volume: 45

Edição: 11

Páginas: 1289-1298

Publicado: SEP. 1999

DOI: 10.1287/mnsc.45.9.1289

Resumo: Relationships between intermediaries and their customers have become increasingly important in recent years. This paper argues that the need for costly ex ante information acquisition and analysis is a major barrier to the participation of investors and firms in sophisticated markets. Long-term relationships between intermediaries and their customers, in which intermediaries provide implicit insurance to customers, can be an effective substitute for costly ex ante investigation. In this way, intermediaries allow firms and investors to reap the benefits of financial markets. Relationships are essential to sustain when the ongoing benefits to both parties are high. As a result, competition may lower the benefits that can be obtained from relationships.

Número de acesso: CCC9000163015900006

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Gale, D | 0000-0001-0309-7732 | 0000-0002-0950-5209

Registro 20 de 20

Autor(es): Schwartz, RJ (Schwartz, RJ); Wether, S (Wether, S)

Título: A new approach to managed care: The provider-run organization

Fonte: PSYCHIATRIC QUARTERLY

Volume: 69

Edição: 4

Páginas: 252-252

Publicado: SEP. 1999

DOI: 10.1023/A:1022162193244

http://apps.webofknowledge.com/Di…
03/08/2018

Web of Science [v.5.29] - OCC Exportar arquivo de transferência

Resume: Behavioral managed care has been dominated by for-profit carve-out managed care organizations who deliver mental health and substance abuse services by reducing services and fees to the detriment of patients and providers. We offer a new model of managed care based on a provider-run, hospital-based approach in which provider groups contract directly with HMOs and eliminate the managed care organization intermediaries. This approach allows providers to maintain control over the delivery of behavioral health services. A model is presented of an academically-based organization which has achieved utilization patterns compatible with the demands of payers. Innovations in service delivery, network management and fiscal issues are reviewed.

Número de acesso: CCC:000076366500007
ID PubMed: 5793111
ISSN: 0033-2120

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2. Search 2 = innovation intermediaries + service industry (22 results)
Registro 1 de 22
Autor(es): Wu, MC (Wu, Mei-Chi); Shan, M; (Shan, Min); Naobahar, B; Beeck, E (Beeck, Eric)
*Título: Information Technology Services: A Key Knowledge-intensive Business Service Industry in Hong Kong SAR, China
*Fuente: SCIENCE TECHNOLOGY AND SOCIETY
*Volume: 19
*Edición: 1
*Páginas: 27-55
*Publicado: MAR 2014
*Resumen: As the global economy focuses increasingly on Asia, Hong Kong’s role as an intermediary between China and the rest of the world merits investigation. In view of the increasing importance of knowledge-based business services and Hong Kong’s recent drive to promote innovation and high-tech services, entrepreneurs and policy-makers must understand Hong Kong’s capacity to support economic development in the Asian region. Following a theoretically informed discussion of the role of information technology (IT) services within the broader category of knowledge-intensive business services (KIBS), Hong Kong’s IT services sector is described and analysed to determine its potential for supporting an innovative local services environment and to identify the key opportunities and challenges involved in further developing the sector. In-depth interviews of important actors in the IT services sector in Hong Kong and case studies of firms that have leveraged IT services supplement our analysis of data on IT service production and usage. IT services represent an opportunity through which Hong Kong can use targeted policy to drive growth and expand its deeper economic relations with Mainland China.
*Número de acceso: CCC:000331:294700002

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Registro 2 de 22
Autor(es): Wu, AQ (Wu, Ai-Qi); Li, SX (Li, Shengxiao); Wang, HF (Wang, Huafeng)
*Título: New Ventures, Product Innovation and Business Intermediaries
*Fuente: CHINÊS MANAGEMENT STUDIES
*Volume: 8
*Edición: 2
*Edición especial: SI
*Páginas: 241-257
*Publicado: 2014
*Resumen: Purpose: The purpose of this paper is to examine the impact of knowledge-intensive business services (KIBS) intermediary ties on new ventures’ product innovation. Product innovation is a critical strategy for new ventures’ survival and growth. Moreover, as a result of smallness and newness, new ventures usually face considerable difficulties in product innovation and require support to help their innovative search and innovation activities. Approach: A questionnaire survey of 145 Chinese new ventures was used to test the presented hypotheses empirically. Findings: This study finds that the intensity of KIBS intermediary ties has a positive influence on innovation, while the diversity of KIBS intermediary ties has no influence on new ventures’ product innovation. Moreover, the relationship between the intensity of KIBS intermediary ties and new ventures’ product innovation is moderated by the degree of their international venturing and ties with other firms.
*Número de acceso: CCC:0000341:03000007
*ISSN: 1753-514X

Registro 3 de 22
Autor(es): Sinclair, RC (Sinclair, Raymond C.); Cunningham, TR (Cunningham, Thomas R.); Schulte, PA (Schulte, Paul A.)
*Título: A Model for Occupational Safety and Health Intervention Diffusion to Small Businesses
*Fuente: AMERICAN JOURNAL OF INDUSTRIAL MEDICINE
*Volume: 55
*Edición: 12
*Páginas: 1442-1451
*Publicado: DEC 2013
*Resumen: Background: Smaller businesses differ from their larger counterparts in having higher rates of occupational injuries and illnesses and fewer resources for preventing those losses. Intervention models developed outside the United States have addressed the resource deficiency issue by incorporating intermediary organizations such as trade associations. Methods: This paper extends previous models by using exchange theory and by borrowing from the diffusion of innovations model. It emphasizes that occupational safety and health (OSH) organizations must understand as much about intermediary organizations as they do about small businesses. OSH organizations (or liaisons) must understand how to position interventions and information to intermediaries as added value to their relationships with small businesses. Examples from experiences in two midwestern states are used to illustrate relationships and types of analyses implied by the extended model. Results: The study found that intermediary organizations were highly attuned to providing smaller businesses with what they want, including OSH services. The study also found that there are opinion leader organizations and individual champions within intermediary organizations who are key to decisions and actions about OSH programming.
*Conclusions: Our model places more responsibility on both initiators and intermediaries to develop and maintain interventions that will be valued in the competitive small business environment where the resources required to adopt each new business activity could always be used in other ways. The model is a candidate for empiric validation, and it offers some encouragement that the issue of sustainable OSH assistance to small businesses might be addressed.
*Número de acceso: CCC:0000348:000003
*ID Publicado: 24115122
*ISSN: 0711-3585

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Regíster 4 de 22
Autor(es): Landy, R; Landry, J; Amaro, N; Amara, N; Nabi, B; Clérouer, J; Clérouer, J.-S; Hallem, N; Hallem, Norrin
Título: Technology transfer organizations: Services and business models
Fuente: TECHNOVATION
Número: 22
Edición: 22
Páginas: 431-449
Publicado: DEC 2013
Resumen: Knowledge and technology transfer organizations (KTOs) are crucial nodes connecting suppliers and users of knowledge that support the endogenous potential of innovation in firms. Prior studies on the services provided by KTOs tend to have weak theoretical foundations, to rely on case study approaches, and to focus attention on one service or a few services provided by a single organization. This study extends and integrates elements from a conceptual knowledge value chain and business model frameworks. The value chain perspective allows integrating the services offered by KTOs in the value chain of firms. As for the business model perspective, it allows developing hypotheses about how KTOs create and deliver value for client firms. To test these hypotheses, we collected and analyzed a data set of 281 publicly supported KTOs located in Canada. The empirical results show that different types of KTOs tend to specialize in the provision of services at different stages of the value chain of firms, and to benefit from complementarity effects between service offerings. Our analysis also shows that different types of KTOs devise different types of business models that are centered on services linked to different stages of the value chain. Overall, these results suggest that the managers of KTOs could improve their business models and increase value to client firms by increasing the degree of customization of solutions offered to clients which, in turn, would also increase revenues from clients, and hence reduce KTOs’ vulnerability to reductions in government funding. (C) 2013 Elsevier Ltd. All rights reserved.
Número de acceso: CEC:580328183946885
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ISSN: 0166-4972

Regíster 5 de 22
Autor(es): Lichtenthaler, U; Lichtenthaler, Ulrich
Título: The Collaboration of Innovation intermediaries and Manufacturing Firms in the Markets for Technology
Fuente: JOURNAL OF PRODUCT INNOVATION MANAGEMENT
Volume: 21
Suplemento: 1
Páginas: 147-159
Publicado: DEC 2013
Resumen: Many manufacturing firms have opened up their product innovation processes and actively transfer knowledge with external partners in the markets for technology. However, the markets for technological knowledge have remained inefficient in comparison with the markets for mass products. To reduce some of the market inefficiencies, manufacturing firms may collaborate with innovation intermediaries, which are defined as organizations that act as agents or brokers in the innovation process between two or more parties. These innovation intermediaries comprise different service providers ranging from consulting companies to Internet marketplaces for technology. In light of an increasing importance of intermediary services in the context of open innovation, this paper specifically focuses on the collaboration of manufacturing firms and innovation intermediaries, which may be critical for the success of intermediary services. Based on a new introduction data from 30 innovation intermediaries and 10 European manufacturing firms, this paper examines the question of how innovation intermediaries and manufacturing firms collaborate concerning the following issues, which emerged as the key themes from the interviews: potential of intermediation, roles of intermediaries, types of intermediation, drivers of intermediation, complementarity of intermediation, compensation of intermediation, and the impact of repeated collaborations. The findings indicate how manufacturing firms may reduce their transaction costs in technology markets by collaborating with intermediaries. However, intermediary services can only be regarded as a complement rather than as a substitute for manufacturing firms’ internal activities of managing technology transfers. Thus, manufacturing firms need sufficient internal capabilities for managing technology transfer, such as absorptive capacity and descriptive capacity.
Número de acceso: CEC:580328183946885
ISSN: 0166-4972

Regíster 6 de 22
Autor(es): Haug, A; Haug, sci; Pawi, D; Pawi, Dominic
Título: Quality, difference and regional advantage: The case of the winter sports industry
Fuente: EUROPEAN URBAN AND REGIONAL STUDIES
Volume: 70
Edición: 1
Edición especial: SI
Páginas: 385-400
Publicado: OCT 2013
Resumen: This paper addresses the role of quality, difference and differentiation in the value both producers and consumers attach to products and firms. It is argued that analysis of urban and regional competitiveness needs to be complemented by a renewed focus on the vital role that quality plays in competitiveness as well as an understanding of geographies of product difference and differentiation. Debates on economic development and resilience need to focus on innovation but also on how through making and providing quality goods and services, that may be based on the latest technologies or equally on age-old craft traditions, firms secure and develop competitive strengths. But since quality is always a value co-constructed in a negotiation between the consumer and producer, processes of identification and differentiation are formative. A case study of two developments in winter sport equipment is used to exemplify an industry in which quality is both an entry condition as well as a major factor in differentiation and valuation. The case illustrates the roles of producer-led innovation and user-led innovation in equipment innovation and that the appreciation of products’ quality, value and differentiation rests in intersections between producers, intermediaries and end-users in localized and regional settings. Focusing on the geographies of quality and differentiation is suggested to be important not only for firms but also for urban and regional policy. Regional advantage may partly rest upon how actors come together to re-construct notions of quality and difference: notions that can have lasting effects on regional competitiveness.
Número de acceso: CEC:580328183946885
ISSN: 0166-4972

Regíster 7 de 22
Web of Science [v5.29] - CCC Exportar: summary de transferência

**Título:** Weaving webs of innovation

**Fonte:** INTERNATIONAL JOURNAL OF OPERATIONS & PRODUCTION MANAGEMENT

**Volume:** 33

**Edição:** 1-2

**Páginas:** 5-24

**Publicação:** 2013

**Resumo:** The research aims to utilize a social network analysis approach to examine the effect of organizational position within a network of strategic partnerships on innovation as measured by perceptions of industry analysts. Specifically, the purpose of the paper is to examine how network characteristics such as degree centrality (being centrally located in a network), between centrality (being positioned as an intermediary), and closeness centrality (having a short average distance to all other firms in the network) affect the innovation ranking of the focal firm. Findings: The network characteristics of degree centrality and between centrality positively relate to industry perceptions of innovativeness whereas closeness centrality had no significant effect. Additionally, there were no discernable differences in innovativeness when comparing manufacturing firms to service organizations.

**Limitações e implicações:** Insignificant findings related to closeness centrality and the good-service/efficient service may be attributable to the data sources, in that, the information is limited to firms within the respective sources. This data limitation may limit the potential of examining the effect of all network characteristics. Additionally, some included companies participate in multiple industries (i.e., have multiple SIC codes), which may serve as the blurring of any differences between good and service firms.

**Practical Implications:** The results highlight the importance of considering strategic partnerships that establish configurations of partnership webs when pursuing innovation activities. Specifically, the findings suggest that firms should seek numerous strategic partnerships (high degree centrality) and attempt to limit information or control the extent to which partners collaborate (high between centrality). These results provide insights for firms seeking to establish new supply chain relationships in order to enhance their level of innovation.

**Orignality/value:** This research provides a unique empirical examination of the impact of network positional characteristics on the innovativeness of a focal firm.

**Número de acesso:** CCC:000011623440002

**ISSN:** 0144-3377

**Registro de 0 8 de 22**

**Autor:** Chicharro, H. (Chicharro, Harold), Volgger, M. (Volgger, Michael)

**Título:** How to promote cooperation in the hospitality industry: Generating practitioner-relevant knowledge using the GABEK qualitative research strategy

**Fonte:** INTERNATIONAL JOURNAL OF CONTEMPORARY HOSPITALITY MANAGEMENT

**Volume:** 24

**Edição:** 6

**Páginas:** 925-945

**Publicação:** 2012

**Resumo:** The purpose of this paper is twofold: to inductively develop propositions regarding the promotion of such cooperation in order to evaluate the relative importance of the two co-effecting positions, and to demonstrate the suitability of GABEK to the development of these propositions.

**Design/methodology/approach:** Following a qualitative case study design, data were gathered by conducting 15 open interviews in a South Tyrolean establishment and analyzed with the aid of the GABEK technique.

**Findings:** The results suggest that the structural and procedural conditions are relatively more critical to the promotion of interorganizational cooperation in the hospitality industry. First, the balancing of the efficiency and legitimacy dimensions via the organizational and procedural design of the cooperation seems crucial; second, intermediary organizations, characterized by good corporate governance, may have a positive influence on cooperation; and third, the application of GABEK-like tools may facilitate the finding of commonly shared solutions in cooperative configurations.

**Practical Implications:** The research reveals actionable insights regarding the improvement of interfirm cooperation by offering managers tangible measures and a tool for implementing the theoretical concepts.

**Originality/value:** The paper is original because it contributes to evaluating the two main approaches to the promotion of cooperation and because it proposes an innovative methodology (GABEK) for practice-oriented qualitative research.

**Número de acesso:** CCC:000011586100009

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**ISSN:** 0950-5119

**Registro de 0 8 de 22**

**Autor:** Consoli, D. (Consoli, Davide) Eliche-Hortelano, D. (Eliche-Hortelano, Dion)

**Título:** Variety in the knowledge base of Knowledge Intensive Business Services

**Fonte:** RESEARCH POLICY

**Volume:** 39

**Edição:** 10

**Páginas:** 1201-1210

**Publicação:** DEC 2010

**DOI:** 10.1016/j.respol.2008.10.005

**Resumo:** Knowledge Intensive Business Services (KIBS) are intermediary firms which specialize in knowledge screening, assessment and evaluation and professional consultancy services. The remarkable rise of this broad class of actors is encouraged by many as the natural by-product of modern knowledge economies within which increasing specialisation induces the need for professional agents in the markets for external knowledge. This paper addresses critically a conceptual flaw in the specialized literature which portrays KIBS as a homogenous group of activities using official data on...
occupational information in the United States we observe and analyse high variety across KIBS sectors occupational structures and skill requirements. Crown Copyright (C) 2010 Published by Elsevier B.V All rights reserved

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Registro 10 de 22
Autor(es): Cash, A (Cash, Andy); Hughes, A (Hughes, Alan)
Título: Never mind the quality feel the width: University-industry links and government financial support for innovation in small high-technology businesses in the UK and the USA
Fonente: JOURNAL OF THE INNOVATION AND TECHNOLOGY TRANSFER
Volume: 35
Edición: 1
Páginas: 69-91
Publicado: 2010
Resumen: In this paper we use a size and industry matched sample of over 1,500 UK and US businesses for the period 2004-05 in the manufacturing and business services sectors to analyse the relative strength of the university-industry ecosystems in which these firms operate in the two economies. Our analysis shows that in both countries universities play a more significant role as a source of knowledge for business innovation than do business and intermediary sources and have less likely to have established formal collaborative or partnership agreements in the 3 years prior to the survey. We also find, however, that a higher proportion of US firms place a very high value on the connections they have with universities and are much more likely to commit resources to support such innovation related university interactions. A similar pattern of diffuse but weaker links characterise the supply of public sector innovation assistance in the two countries. UK firms are more likely to be in receipt of assistance, but receive significantly less per firm in absolute terms and relative to their R&D expenditures. It appears that the UK university-industry ecosystem is characterised by a greater weight than quality of interaction.

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Registro 11 de 22
Autor(es): Hine, DC Hine, Damian Charles); Parker, R (Parker, Rachael); Ireland, D (Ireland, David)
Título: The knowledge exchange intermediary as service provider: a discussion and an Australian case
Fonente: SERVICE INDUSTRIES JOURNAL
Volume: 30
Edición: 4
Páginas: 713-723
Publicado: 2010
Resumen: The critical impact of innovation on national and the global economies has been discussed at length in the literature. Economic development requires the diffusion of innovations into markets. It has long been recognised that economic growth and development depends upon a constant stream of innovations. Governments have been keenly aware of the need to secure this flow does not dry up to a trickle and have introduced many and varied industry policies and incentives to assist in seeing, supporting and diffusing innovations. In Australia, as in many countries, Government support for the transfer of innovative knowledge to industry, especially from publicly-funded research has resulted in the creation of knowledge exchange intermediaries. These intermediaries are themselves service organisations, seeking innovative service offerings for their markets. The choice for most intermediaries is generally a dichotomous one, between market-pull technology-push knowledge exchange programmes. In this article, we undertake a case analysis of one such innovative intermediary and its flagship programme. We then compare this case with other successful intermediaries in Europe. We put forward a research proposition that the design of intermediary programmes must match the service type they offer. That is, market-pull programmes require market pull design, in close collaboration with industry, whereas technology programmes can be problem-solving innovations where demand is latent. The discussion reflects the need for an evolution in knowledge transfer policies and programmes beyond the first generation achieved with the US Bayh-Dole Act (1980) and Stevenson-Wydler Act (1984). The data analysed is a case study comparison of market-pull and technology-push programmes, focusing on primary and secondary socio-economic benefits (using both Australian and international comparisons).

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ISSN: 0364-2069
Registro 12 de 22
Autor(es): Zhong, Y; Zhong, Yan; L; HY, Li; Pujiang
Título: INNOVATION SEARCH OF NEW VENTURES IN A TECHNOLOGY CLUSTER: THE ROLE OF TIES WITH SERVICE INTERMEDIARIES
Fonente: STRATEGIC MANAGEMENT JOURNAL
Volume: 3
Edición: 1

Page 180
Perfil: In this study, we examine the relationships between new ventures’ ties with service intermediaries (i.e., technology service firms, accounting and financial service firms, law firms, and talent search firms) and their product innovation in the context of a technology cluster. Because service intermediaries sit at the intersection of many firms, organizations, and industries, they maintain extensive networks that enable the ventures to plug into these networks and contribute to the ventures’ product innovation by broadening the scope of their external innovation search and reducing their search cost. Moreover, we argue that the positive relationships between new ventures’ ties with service intermediaries and their product innovation will become stronger when search in the network is in the cluster is more important to the ventures’ product innovation. Based on a sample of 120 ventures in a technology cluster in China, our results support these arguments.

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Número de acceso: CCC: 0000-0000
ISSN: 0000-0000

Registro 13 de 22

Título: A Global Review of Insurance Industry Responses to Climate Change
Fonte: GENEA PAPERS ON RISK AND INSURANCE-ISSUES AND PRACTICE
Volume: 34
Edição: 1
Páginas: 323-355
Publicado: J. L. 2009

Resumo: A study of insurers is adapting its business model to the realities of climate change. In many ways, insurers are still catching up both to mainstream science and to their customers, which, in response to climate change and energy volatility, are increasingly changing the way they construct buildings, transport people and goods, design products and produce energy. Customers, as well as regulators and shareholders, are eager to see insurers provide more products and services that respond to the “greening” of the global economy. They desire to improve disaster resilience and otherwise be proactive about the climate change threat. Insurers are increasingly recognizing the issue as one of “enterprise risk management” (ERM), one cutting across the domains of underwriting, asset management and corporate governance. Their responses are becoming correspondingly sophisticated. Based on a review of more than 300 source documents, plus a direct survey of insurance companies, we have identified 643 specific activities from 244 insurance entities from 29 countries, representing a 16.5% average year-on-year increase in activity. The estimates of 1.9 trillion in assets, and employing 1.2 million people. In addition to activities on the part of 489 insurers, 8 reinsurers, 19 intermediaries and 27 insurance organisations, we identified 319 new insurance entities that have collaborated in these efforts. Challenges and opportunities include bringing promising products and services to scale, continuing to identify and fill market and coverage gaps and identifying and confirming the veracity of green improvements. There is also need for convergence between sustainability and disaster risk, and greater engagement by insurers in adaptation to unavoidable climate changes and to clarify the role that regulators will play in moving the market.

Número de acceso: CCC: 0000-0000
ISSN: 0000-0000

Registro 14 de 22

Título: Intermediary services in the markets for technology: Organizational antecedents and performance consequences
Fonte: ORGANIZATION STUDIES
Volume: 29
Edição: 7
Páginas: 1003-1035
Publicado: J. L. 2009
DOI: 10.1080/003049709033105031

Resumo: The external commercialization of technology assets, e.g., by means of outsourcing, licensing, and has recently gained in importance. Despite this increase in technology transactions, many industrial firms experience major managerial difficulties in outsourting technology. Because of imperfections in the markets for technology, drawing on a resource-based perspective, we therefore analyse whether firms can overcome market inefficiencies by relying on intermediary intermediaries such as consulting companies and internet platforms. We test five hypotheses regarding the organizational antecedents and performance consequences of intermediary services with data from 152 firms spanning multiple industries. The empirical findings show that industrial firms need to develop institutional competencies of externally leveraging technology. External service providers are a complement rather than a substitute for internal activities. Accordingly, the role of technology intermediaries as general intermediaries of interorganizational technology transactions has to be questioned. On this basis, the study has major implications for research into intermediary technologies, technology exploitation, licensing, open innovation and organizational boundaries.

Número de acceso: CCC: 0000-0000
ISSN: 0000-0000

Registro 15 de 22

Título: The Recent Growth Performance of US Firms in the Industrial Design Sector: An Exploratory Study
Fonte: INDUSTRY AND INNOVATION
Volume: 11
Edição: 1
Páginas: 1-17
Publicado: 2008
DOI: 10.1080/11662710701524015

Resumo: This paper assesses the competitive factors associated with company growth in the US industrial design sector. This small but technologically advanced sector delivers critical innovation inputs to firms that produce durable goods. Evidence from a survey of 115 US design companies suggests that competitive success hinges upon service diversity. Specifically, the most commercially buoyant companies have diversified their service offerings beyond product or component design. These firms have developed strategic competencies in fields such as contract research, prototype development, product
testing, technological forecasting, market analysis and even advertising. Although most US design companies are small-to-medium-sized enterprises, successful firms do not differ from their less successful counterparts in terms of employment size, occupational structure, regional location or market focus (client sector). Instead, the key differences lie in service diversity and the quality of human capital. The paper concludes with a brief discussion of the implications of the empirical findings for future research on the dynamics of the design industry.

Número de acesso: CCC000290831000001
ISSN: 1399-2716

Registro 16 de 22
Autor(es): Graham, B (Graham, Barry)
Título: Innovation in Innovation
Fonte: JOURNAL OF THE COMMUNICATIONS NETWORK
Volume: 1
Parte: 2
Páginas: 55-59
Publicado: APR-JUN 2007
Resumo: This article examines the challenges facing those in the telecommunications industry charged with innovation and the application of a new third-party intermediary service that has been successful in other industries addressing those challenges.

Número de acesso: CCC000290724000035
ISSN: 1477-4729

Registro 17 de 22
Autor(es): Anand, BN (Anand, Bharat N.); Gajetovic, A (Gajetovic, Alexander)
Título: Relationships, competition and the structure of investment banking markets
Fonte: JOURNAL OF INDUSTRIAL ECONOMICS
Volume: 54
Edição: 2
Páginas: 51-199
Publicado: JUN 2006
DOI: 10.1111/j.1467-6481.2006.00397.x
Resumo: It is well known that competition can destroy incentives to invest in firm-specific relationships. This paper examines how the tension between relationships and competition is resolved in the investment banking market, which for decades has been characterized by both relationships and competition. The model studies the impact on relationships of three different dimensions of competition: non-exclusive relationships, competition from arm’s length intermediaries, and price competition, and endogenous entry. The analysis shows how market equilibrium adjusts so that relationships are sustained in the face of such competition. Banks are shown to establish relationships either with local or aggregate monopoly power. The model rationalizes two distinct empirical regularities of market structure: the invariance of market concentration to market size, and a pyramid-like market structure with an oligopoly comprising similar-sized players at the top and a large number of small banks at the bottom. The analysis may also shed light on the industrial organization of other professional service industries.

Número de acesso: CCC000230496000001
ISSN: 0022-1021

Registro 18 de 22
Autor(es): Cook, MB (Cook, M. B.); Bhamra, TA (Bhamra, T. A.); Lennon, M (Lennon, M.)
Título: The transfer and application of Product Service Systems: from academia to UK manufacturing firms
Fonte: JOURNAL OF CLEANER PRODUCTION
Volume: 14
Edição: 17
Páginas: 457-465
Publicado: 2006
DOI: 10.1016/j.jclepro.2006.01.018
Resumo: The widespread implementation of many advanced economies is thought by many commentators to provide opportunities to move society away from unsustainable patterns of production and consumption. The concept of the Product Service System (PSS) has been conceptualised in academic circles to assist in the attainment of such desirable futures. This paper reports the findings of research conducted as part of the SCID project which considered the transfer and application of the PSS concept from academia to industry in the UK’s industrial sector. It draws upon theories from evolutionary economics to provide a rationale for the transfer of the PSS concept and the role of this in achieving desirable technological change. The paper also identifies an appropriate methodology to transfer the PSS concept from academic circles to industry and the factors which impact upon, and importantly lead to, the successful completion of this process. The combination of theoretical insight with case study research is used to develop a framework that could help UK based intermediaries to complete the transfer of the PSS concept. This is seen as an integral part of public policies aimed at stimulating sustainable patterns of production and consumption. © 2005 Elsevier Ltd. All rights reserved.

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ISSN: 0959-6526

Registro 19 de 22
Autor(es): Ranits, HM (Ranits, NM)
Título: The competitive foundations of localized learning and innovation: The case of women's garment production in New York City
Fonte: ECONOMIC GEOGRAPHY
Volume: 16
Edição: 4
Páginas: 441-462

http://apps.webofknowledge.com/OutboundService.do?action=gdo&display=CitId&Ref=true&displayTimes=CitId&true&dispalyUsageInfo=true&viewT...
Resume: This article examines the Japanese house industry to show how interactions between customers and manufacturers influence both the design of houses in Japan and the locational attributes of the house industry. The particularities of places and the processes of personalization challenge the joint imperatives of product differentiation and economies of scale. National builders are forced to modify their differentiation strategies in order to compete with the flexibilities of local contractors. In turn, local contractors must respond to production and service innovations introduced by national builders. Materials and equipment suppliers, poised as intermediaries, link these two types of firms. This coevolution of firm flexibilities is modeled here along five dimensions: system constraints, internal flexibility, interaction processes, quick response through the value chain, and modularization. The model reveals how national and local contractors respond to the need for interaction and highlights the relationship between production processes in space and patterns of consumption in localities.

Número de acceso: CCC:000376390700007
ISSN: 0004-9508

Registro 23 de 22

Título: Biotechnology clusters as regional, sectoral innovation systems

Fonte: INTERNATIONAL REGIONAL SCIENCE REVIEW

Volume: 25

Páginas: 8-37

Publicado: JAN 2002

DOI: 10.1311/1467-8306.0029

Resume: Today, knowledge economies are a key asset for global competitiveness. Biotechnology is a knowledge-driven sector because it consists of knowledge working on knowledge to create value, exceeding in genomics and proteomics being paradigmatic knowledge-based economic activities. The current biotechnological revolution has been fostered through the development of new interactives services for building professionals. This paper puts in perspective the fundamentals affecting the creation of new interactive services for building professionals. The paper reviews include issues related to acquiring new skills as well as establishing market and user needs. In addition, recent advent of the industry has resulted in various new business models being utilized not only for business process improvement but also more strategically for market penetration and business expansion. Through the use of three examples of interactive content studio, content rights intermediary and virtual community, this paper investigates the current and potential impact of these new models upon the businesses within the building sectors. © 2001 Elsevier Science B.V. All rights reserved.

Número de acceso: CCC:000162257000004
ISSN: 0926-5405
3. Search 3 = innovation brokers + service innovation (36 results)
Registro 1 de 36
Autor(es): Levinson, PJ (Levinson, Robert J.); Solinger, NM (Solinger, Michael A.)
Título: Economic Considerations Raised by the Federal Trade Commission’s Investigation of Google’s Search Practices
Fuente: COMPETITION POLICY INTERNATIONAL
Volume: 10
Edición: 2
Páginas: 03-117
Publicado: FAL 2014
Resumen: In January 2013, the Federal Trade Commission closed its nineteen-month antitrust investigation into Google’s search practices. The primary issue in that investigation was Google’s use of Universal Search results. The argument that Google’s display of Universal Search results violated the antitrust laws appeared to rest on a theory of vertical foreclosure. Under the vertical foreclosure theory, Google’s thematic results compete with a third-party thematic search sites, and the “proper” role for Google’s general search engine was to act as an honest broker among the alternatives. The FTC’s investigation and its resolution raised interesting antitrust issues, some of which were novel, and some of which were fundamental to search antitrust enforcement. Among these are several that we consider in this article: (1) What is the nature of the economic relationship between Google and third parties that receive (and perhaps rely on) traffic referred to them by Google’s general search engine? (2) Is “general search” a relevant antitrust market, and is general search a distinct product or service, inherently separate from thematic search?; and (3) Should innovations by Google that expand the scope of what its general search engine can do and place it in competition with other websites be viewed as “monopoly leveraging” or, alternatively, as “innovation competition”? Número de acceso: CCC00032156700007 ISSN: 1554-0189

Registro 2 de 36
Autor(es): Conrad, DA (Conrad, Douglas A.); Grombowski, D (Grombowski, David); Hernandez, SE (Hernandez, Susan E.); Lau, B (Lau, Bernhard); Marcus, Smith, M (Smith, Miles Smith); Miran, M (Miran, Michael)
Título: Emerging Lessons From Regional and State Innovation in Value-Based Payment Reform: Balancing Collaboration and Disruptive Innovation
Fuente: MILBANK QUARTERLY
Volume: 52
Edición: 3
Páginas: 665-683
Publicado: SEP 2014
Resumen: Public and private purchasers must create a buying bridge of countervailing pressure that signals no turning back to fee-for-service in order to sustain the momentum for value-based payment. Multi-stakeholder coalitions must establish a defined set of quality, outcomes, and cost performance measures; and the interoperable information systems to support data collection and reporting of value-based payment schemes. Anti-trust vigilance is necessary to find the sweet spot of competition and cooperation among health plans and health care providers. Provider and health plan transparency of price and quality, supported by all-payer claims data, are critical in driving value-based payment innovation and cost constraint. Context: recent decades, practitioners and policymakers have turned to value-based payment initiatives to help contain spending on health care and improve the quality of care. The Robert Wood Johnson Foundation funded 7 grantees across the country to design and implement value-based, multi-stakeholder payment reform projects in 6 states and 3 regions of the United States. Methodology: the external evaluators of these projects, reviewed documents, conducted interviews with key stakeholders, cross-validated factual and narrative information, and performed qualitative analyses to derive cross-site themes and implications for policy and practice. Findings: the nature of payment reform and its momentum closely reflect the environmental context of each project. Federal legislation such as the Patient Protection and Affordable Care Act and federal and state support for the development of the patient-centered medical home and accountable care organizations encourage value-based payment innovation, as do local market conditions for payers and providers that combine a history of collaboration with independent innovation and experimentation by individual organizations. Multi-stakeholder coalitions offer a useful facilitating structure for galvanizing payment reform. But to achieve the objectives of reduced cost and improved quality, multi-stakeholder payment innovation must overcome such barriers as incomplete information systems, the technical difficulties and transaction costs of altering existing billing and payment systems, conflicting stakeholder priorities, insufficient scale to bear population health risk, providers’ limited experience with risk-bearing payment models, and the failure to align care delivery models with the form of payment. Conclusions: from the evidence addressed in this article, multi-stakeholder, value-based payment reforms requires a trusted, widely respected honest broker that can convene and maintain the ongoing commitment of health plans, providers, and purchasers. Change management is complex and challenging, and coalition governance requires flexibility and stable leadership, as market conditions and stakeholder engagement and priorities shift over time. Another significant facilitator of value-based payment reforms outside investment that enables increased investment in human resources, information infrastructure, and care management by provider organizations and their collaborators. Supportive community and social service networks that enhance population health management also are important enablers of value-based payment reforms. External pressure from public and private payers is fueling a buying bridge between the past of fee-for-service payment models and the future of payments based on value. Robust competition in local health plan and provider markets, coupled with an appropriate mix of multi-stakeholder governance, pressure from organized purchasers, and regulatory oversight, has the potential to spur value-based payment innovation that combines elements of informed fee-for-service with bundled payments and global payments. Número de acceso: CCC00034271020001 ID: Published: 25/11/99900 ISSN: 0897-378X

Registro 3 de 36
Autor(es): Heurly, NJ (Heurly, Marie-Josee); Grenier, G (Grenier, Guy); Villeneuve, C (Villeneuve, Catherine); Hurtubise, R (Hurtubise, Roch); Levesque, PA (Levesque, Paul-Andre)
Título: The role of advocacy coalitions in a project implementation process: The example of the planning phase of the AM Homey/Chez Soi project dealing with homophobia in Montreal
Fuente: PALLIATIVE CARE AND PROGRAM PLANNING
Volume: 45
Páginas: 42-49
Publicado: AUG 2014
Resumen: This study analyzed the planning process (summer 2008 to fall 2009) of a Montreal project that offers housing and community follow-up to...
03/08/2018 · Web of Science [v5.29] · OCC Exportervisio de transfererios

homeless people with mental disorders, with or without substance abuse disorders. With the help of the Advocacy Coalition Framework (ACF), advocacy groups that were able to navigate a complex intervention implementation process were identified. In a 1, 25 people involved in the Montreal At Home/Chez Sei project were surveyed through interviews (n = 18) and a discussion group (n = 7). Participant observations and documentation (minutes and correspondence) were also used for the analysis. The start-up phase of the At Home/Chez Sei may be broken down into three separate periods qualified respectively as “honing,” “clash of cultures,” and “acceptance & commitment.” In each of these phases the At Home/Chez Sei project in Montreal, at least two advocacy coalitions were in confrontation about their specific belief systems concerning solutions to address the recurring homelessness social problem, while a third, more moderate one contributed in rallying most key actors under specified secondary aspects. The study confirms the importance of policy brokers in achieving compromises acceptable to all advocacy coalitions. (C) 2014 Elsevier Ltd. All rights reserved.

Número de acceso: 0000334914100000

ID Published: 24709632
ISSN: 0149-7109

Registro 4 de 36
Autor(es): Bennett, S; Bennett, Sara; Lagomarsino, G; Lagomarsino, Gina; Kozlovich, J; Kozlovich, Jeffrey; Lucas, H; Lucas, Henry
Título: Accelerating learning for pro-poor health markets
Fuente: GLOBALIZATION AND HEALTH
Volume: 10
Páginas: 54-64
Publicado: JUN 24, 2014

Resumen: Background: Given the rapid evolution of health markets, learning is key to promoting the identification and uptake of health market policies and practices that better serve the needs of the poor. However there are significant challenges to learning about health markets. We discuss the different forms that learning takes, from the development of codified scientific knowledge, through to experience-based learning, all in relation to health markets.

Discussion: Notable challenges to learning in health markets include the difficulty of acquiring data from private health care providers, designing evaluations that capture the complex dynamics present within health markets and developing communities of practice that encompass the diverse actors present within health markets, and building trust and mutual understanding across these groups. The paper proposes experimentation with country-specific market data platforms that can integrate relevant evidence from different data sources, and simultaneously explore strategies to secure better information on private providers and health markets. Possible approaches to adapting evaluation designs so that they are better able to take account of different and changing contexts as well as providing real-time findings are discussed. Finally capturing informal knowledge about health markets is key. Common ties of practice that bridge different health market actors can help to share such experience-based knowledge and in so doing, may help to facilitate it. More geographically focused communities of practice are needed, and such communities may be supported by innovation brokers and/or be built around member-based organizations.

Resumen: 'Strategic investments in and support to learning about health markets can address some of the challenges experienced to-date, and accelerate learning that supports health markets that serve the poor.'

Número de acceso: 0000339282700001

ID Published: 24961671

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ISSN: 1744-8603

Registro 5 de 36
Autor(es): Honrubia, V; Honrubia, Vincent; Dijkshoorn, A; Dijkshoorn, Andries; Thoens, M; Thoens, Marcen
Título: Diffusion of Personalised Services among Dutch Municipalities: Evolving Channels of Persuasion
Fuente: LOCAL GOVERNMENT STUDIES
Volume: 40
Edición: 3
Páginas: 425-456
Publicado: JUN 2014

Resumen: In many European countries, municipalities are becoming increasingly important as providers of electronic public services to their citizens. One of the reasons for further expansion is the delivery of personalised electronic services. In this article we discuss the diffusion of personalised services in the Netherlands over the period 2006-2009 and investigate how and why various municiple policies adopted personalised electronic services. In achieving this, we analyse data that were gathered during interviews with key stakeholders in 16 selected Dutch municipalities. We synthesise the findings in an explanatory model of personalised electronic service delivery difficulties. The model highlights persuasive pressures that are channelled to potential adopters of personalised services. Furthermore, the model shows how persuasive pressure (as perceived by adopters) is followed up by organisational search activities, and how, in various circumstances, the idea of personalised services is ‘framed’ by innovation champions, knowledge brokers and new members of staff as appealing to specific organisational priorities and ambitions. In doing so, this article contributes to an institutional view of adoption and diffusion of innovations, in which (1) horizontal and vertical channels of persuasion and (2) human agency, rather than technological opportunity and rational cost-benefit considerations, account for actual diffusion of innovations.

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ISSN: 0300-7730

Registro 6 de 36
Autor(es): Zhan, SC; Zhan, Shun-Cheng; Chang, SC; Chang, Shi-Chung; Luh, PB; Luh, Peter B.; Liu, HI; Liu, Hon-Hsial
Título: Truthful Auction Mechanism Design for Short-Interval Secondary Spectrum Access Market
Fuente: IEEE TRANSACTIONS ON WIRELESS COMMUNICATIONS
Volume: 13
Edición: 3
Páginas: 471-1491

Exploitation of short-interval spectrum availability offers an opportunity to better utilize spectrum for wireless communications. One significant class of short-interval secondary spectrum (SSS) markets involves a primary license holder (PLH) renting out homogeneous spectrum units to a few competing Mobile Virtual Network Operators (MVNOs). This paper presents a design of SSS market framework with brokerage services that mitigate information asymmetry and host auctions. The novel SSS auction design is single-round and Vickrey-Clarke-Groves (VCG) auction based and integrates two innovations. The first is a highly expressive bidding format that allows maximum bidding options to MVNOs in single submission. The second is a virtual bidder by the broker, whose bids are based on FCC’s specification of per-unit reserve price, to avoid MVNOs’ consideration of unfeasible bidding strategies and guarantees that per-unit payment is no less than the reserve price. Such a design exploits the insufficiency of VCG and further achieves individual rationality and budget balance. Numerical experimentation shows that SSS auction generates in average 31% higher per-unit revenue than VCG. For a SSS market of 200 P MVNOs and 500 spectrum units, computation time of each auction is within 15 seconds. These designs suit for SSS applications in time efficient and economic considerations.

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ISSN: 1316-127X

Registro 7 de 36

Título: Organizational structure and knowledge-practice diffusion in the MNC

Fonte: JOURNAL OF KNOWLEDGE MANAGEMENT

Volume: 18

Edição: 4

Páginas: 710-727

Publicado: 2014

Resumo: This study aims to examine the interaction of formal and informal cross-boundary knowledge-sharing practices of four large multinational corporations (MNCs) in aerospace, software, IT services and telecommunications industries. The goal was to determine the manner in which coordination and control mechanisms facilitate knowledge transfer.

Findings: The primary finding of this study is that knowledge transfer mechanisms arise as a result of both formal and informal structures of the MNC. Formal structures which create either mutual dependencies or occasions for knowledge exchange facilitate transfer. Formal structure which inhibits knowledge transfer can be overcome by knowledge brokers and evaluation metrics.

Originality/value: This paper investigates the role of organizational structure and its effects, both intended and unintended, on the transfer of knowledge-based practices. While knowledge transfer has been heavily researched, this study examines the phenomenon at a finer-grained level of analysis.

Número de acceso: CCC:000034159700004

ISSN: 1387-3270

Registro 8 de 36

Título: An exploratory study of knowledge brokering in hospital settings: Facilitating knowledge sharing and learning for patient safety

Fonte: SOCIAL SCIENCE & MEDICINE

Volume: 98

Páginas: 79-86

Publicado: DEC 2013

Resumo: This paper reports on an exploratory study of intraorganisational knowledge brokers working within three large acute hospitals in the English National Health Services. Knowledge brokering is promoted as a strategy to support effective knowledge sharing and learning in healthcare, especially in the diffusión of research evidence into practice. Less attention has been given to brokers who support knowledge sharing and learning within healthcare organisations. We use specific reference to the need for learning around patient safety, this paper focuses on the structural position and role of four types of intraorganisational brokers. Through ethnographic research it examines how variations in formalised, location and role relationships shape how they share and support the use of knowledge across organisational and occupational boundaries. It suggests these occupying hybrid organisational roles, such as clinical-managers, are often best positioned to support knowledge sharing and learning because of their ‘ambassadorial’ type position and legitimacy to participate in multiple communities through dual-directed relationships. (C) 2013 Elsevier Ltd. All rights reserved.

Número de acceso: CCC:0000325279500011

ID PubMed: 2431883

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ISSN: 0377-6136

Registro 9 de 36

Título: The Collaboration of Innovation Intermediaries and Manufacturing Firms in the Markets for Technology

Fonte: JOURNAL OF PRODUCT INNOVATION MANAGEMENT

Volume: 30

Suplemento: 1

Resumo: Manuscritos fabricantes de mercadorias têm aberto caminho para processos de inovação e transfeção de conhecimento com parceiros externos. Os processos de inovação permitem o desenvolvimento de novos produtos e serviços, além de promover a criação de novas oportunidades de negócios.

Keywords: Manuscritos, processo de inovação, transfeção de conhecimento, parceiros externos.
Objectives: The purpose of this study was to profile the supports and instruments (i.e., programs, interventions, instruments or tools) that healthcare organizations currently have in place and which ones were perceived to facilitate evidence-informed decision-making.

Methods: In-depth semi-structured telephone interviews were conducted with individuals in three different types of positions (i.e., a senior management team member, a library manager, and a knowledge broker) in three types of healthcare organizations (i.e., regional health authorities, hospitals and primary care practices) in two Canadian provinces (i.e., Ontario and Quebec). The interviews were taped, transcribed, and then analyzed thematically using NVivo 5 qualitative data analysis software.

Results: A total of 27 interviews were conducted in 23 organizations in Ontario and Quebec. The main findings suggest that, for the healthcare organizations that participated in this study, the following supports facilitate evidence-informed decision-making: facilitating roles that actively promote research use within the organization; establishing ties to researchers and opinion leaders outside the organization; a technical infrastructure that provides access to research evidence, such as databases; and provision and participation in training programs to enhance staff capacity building.

Conclusions: This study identified the need for having a receptive climate, which laid the foundation for the implementation of other tangible initiatives and supported the use of research in decision-making. This study adds to the literature on organizations' efforts that can increase the use of research evidence in decision-making. Some of the identified supports may increase the use of research evidence by decision-makers, which may then lead to more informed decisions, which are conducive to a strengthened health system and improved health.

ID Published: 29151578
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ISSN: 1746-5808

Registro de 36

Título: Bridging brokers and boundary spanners: a systematic review of evidence-based practice decision-making in healthcare services research

Fonte: HEALTH SERVICES RESEARCH Volume: 13 Páginas: 156-158

Publicado: APR 30 2013

Resumo: Background: Bridges, brokers and boundary spanners facilitate transactions and the flow of information between people or groups who either have no physical or cognitive access to one another, or, alternatively, who have no basis on which to trust each other. The healthcare sector is a context in which such role descriptions are critical for success, such as the role of the "bridging broker," who connects isolated clusters, such as silos and professional "tribes." In an effort to understand, analyze and exploit the role of key agents who have the capacity to connect disparate groupings in large systems, we conducted a systematic review of the literature on brokerage roles for the years 1994 to 2011. The purpose of this review was to identify and evaluate the various roles that brokers and boundary spanners play in facilitating the flow of information and knowledge in healthcare organizations.

Methods: A systematic search of the literature was conducted using a comprehensive set of keywords and search terms related to brokerage roles in healthcare services research. Studies were included if they met the following criteria: 1) a study that reported on brokerage roles in healthcare services research; 2) a study that was published in a peer-reviewed journal; and 3) a study that was published in a language other than English.

Results: The search strategy identified 27 studies that met the inclusion criteria. The studies were classified into four categories: 1) the role of brokers and boundary spanners in knowledge transfer; 2) the role of brokers and boundary spanners in knowledge management; 3) the role of brokers and boundary spanners in knowledge generation; and 4) the role of brokers and boundary spanners in knowledge evaluation.

Conclusions: The results of this review suggest that brokers and boundary spanners play a critical role in facilitating the flow of information and knowledge in healthcare organizations. The results also suggest that brokers and boundary spanners are critical for the success of healthcare organizations in becoming more knowledge-based organizations. The results also suggest that brokers and boundary spanners are critical for the success of healthcare organizations in becoming more knowledge-based organizations.

ID Published: 29631537
ISSN: 1472-6953

Registro de 25

Título: Organizational climate and its influence on brokers' knowledge transfer activities: A structural equation modeling

Fonte: INTERNATIONAL JOURNAL OF INFORMATION MANAGEMENT Volume: 33 Edição: 1 Páginas: 156-158

Publicado: MAR 15 2013

Resumo: The purpose of this paper is to examine the relationship between organizational climate and brokers' knowledge transfer activities. The structural equation model was tested, using survey data from 30 respondents who primarily carry out their professional activities in health services, such as knowledge brokers. The results suggest that organizational climate has a direct positive impact on the brokers' knowledge transfer activities.

ID Published: 290033132000012
ISSN: 0261-1235

Registro de 25

Título: Weaving webs of innovation

Fonte: INTERNATIONAL JOURNAL OF OPERATIONS & PRODUCTION MANAGEMENT Volume: 33

http://pubs.worldknowledgew.com/OutboundService.do?Action=go&display=CladIdRefs=true&displayTimes=CladIdRefs=true&displayUsage=false&ref=true&view...
Resume: The growing multifunctionality in agriculture, combined with privatization of previously public agricultural extension services, has resulted in a pluralistic land management advisory system. Despite benefits of increased policy orientation and greater advisor diversity, it is argued that these changes have resulted in the fragmentation of the land management advisory system and a reduction of interaction within the advisory system and science. Hence, concerns have been voiced as regards the capacity of the advisory system to be able to incorporate new knowledge, resulting in a growing interest in how advisors obtain and construct the knowledge necessary for offering adequate advisory services to their clients. In this article we explore how advisors within the farm and land management advisory system (land agents, applied ecologists and veterinarians) develop and optimize their knowledge by engaging in different kinds of networks (centralized, distributed and decentralized), each of which employs a different type of social capital. Key findings suggest that to obtain the knowledge needed to solve complex queries of clients, advisors use distributed networks and draw upon informal communities of practice within their own advisory profession characterized by bonding social capital, but also draw upon broader ‘networks of practice’ involving multiple advisors from different advisory professions, which rely on bridging social capital. The employment of centralized networks which rely on linking social capital, to solve complex queries or develop new services, for example through contacts with scientific institutes, appears to be less developed, despite bridging activities of the professional associations. Whereas fragmentation and disconnect due to compartmentalization and epistemological differences do play a role, they do not appear to prevent overall knowledge exchange among advisors within and across different professions. Assumptions of a collapse of interaction within the land management advisory system are not supported by the evidence, as there appears to be much bridging and bridging social capital. However, to optimize interactions between professions, and between advisors and the science system, informal broker or formal broker formal networks can play a bigger role.

Originality/value - This research provides a unique empirical examination of the impact of network position on characteristics on the innovativeness of a local farm.

Número de acceso: CCC:00031185400002
ISSN: 0344-3577

Registro 16 de 36
Autor(es): Feller, J; Feller, Joseph; Finesgan, P; Finesgan, Patrick; Hayes, J; Hayes, Jeremy; O'Reilly, P; O'Reilly, Philip
Título: ‘Orchestrating’ sustainable crowdfunding: A characterisation of solver brokerages
Fonte: JOURNAL OF STRATEGIC INFORMATION SYSTEMS
Volume: 2;
Edição: 3
Páginas: 216-222
Publicado: SEP 2012
Resume: Examples of open innovation have revealed that intellectual property (IP) need not only be sourced through existing hierarchical or market relationships. Rather IP can be acquired from individuals and firms with whom an organization has no prior relationship. In such cases, an intermediary, operating as an innovation exchange or brokerage, frequently facilitates the development and acquisition of IP. This paper examines one type of innovation intermediary, the ‘Solver Brokerage’, which enables innovation exchanges between organizations and unknown external firms and individuals (i.e. a crowdsourcing process). While the commercial success of Solver Brokerages indicates the potency of arguments concerning the potential of crowdsourcing, little is known about the operation of such brokerages or the crowdsourcing processes that they enable. This paper examines extant research on innovation networks, crowdsourcing, and electronic marketplaces to identify three processes (knowledge mobility, appropriability and stability) that we argue are necessary to ‘orchestrate’ crowdsourcing. Using a field study of four Solver Emences, an innovation seeking organization, as well as 15 innovation providers (i.e. members of the ‘crowd’), the paper illustrates the ways in which the three orchestration processes are enhanced in Solver Brokerages. It reveals that while knowledge mobility and appropriability processes can be enhanced by activist actors under the control of the Solver Brokerage, stability is
largely determined by innovation seeking organizations and the innovation providers. The paper concludes that broken-provided value-added 'orchestration' services need to enable knowledge mobility and appropriability, and to ensure that unsuccessful innovation seekers and providers appropriate sufficient value to participate again. (C) 2012 Elsevier B.V. All rights reserved.

Número de acceso: CCG-0003-014565000

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ISSN: 0963-6877

Registro 19 de 36

Autor(es): Zerd, Y (Yarel), Vicky; Smith, S (Smith Simon); House, A (House, Allan); Hamer, S (Hamer, Susan)

Título: Exploring knowledge exchange: A useful framework for practice and policy

Fuentes: SOCIAL SCIENCE & MEDICINE

Edición: 3

Páginas: 977-994

Publicado: 2012

Resumen: Knowledge translation is underpinned by a dynamic and social knowledge exchange process but there are few descriptions of how this unfolds in practice settings. This has hampered attempts to produce realistic, and useful models for knowledge brokers enable health-care workers and researchers to understand how knowledge exchange works. This paper reports the results of research which investigated the nature of knowledge exchange. We aimed to understand whether dynamic and fluid definitions of knowledge exchange are valid or if it produces a realistic and descriptive framework of knowledge exchange.

Our research was informed by a realist approach. We embedded a knowledge broker within three service delivery teams across a mental health organisations in the UK, each of whom was grappling with specific challenges. The knowledge broker participated in the teams' problem-solving process and collected observational fieldnotes. We also interviewed the research members. Observational and interview data were analysed quantitatively and qualitatively in order to determine and describe the nature of the knowledge exchange process in more detail. This enabled us to refine our conceptual framework of knowledge exchange.

We found that knowledge exchange can be understood as a dynamic and fluid process which incorporates distinct kinds of knowledge from multiple sources. Qualitative analysis illustrated that five broad and defined components of knowledge exchange (problem, context, knowledge, activities, use) can all be in play at any one time and not occur in a set order. Qualitative analysis revealed a number of distinct themes which best describe the nature of knowledge exchange.

By shedding light on the nature of knowledge exchange, our findings problems in some of the linear, technocratic approaches to knowledge translation. The revised model of knowledge exchange which we propose here could therefore help to reorient thinking about knowledge exchange and act as a starting point for further exploration and evaluation of the knowledge exchange process. (C) 2011 Elsevier Ltd. All rights reserved.

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ID PubMed: 22144420

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ISSN: 0963-6877

Registro 19 de 36

Autor(es): Benassi, M (Benassi, Maria); D'Angelo, A (D'Angelo, Alfredo); Genni, G (Genni, Gulia)

Título: IP Intermediaries in Europe: A Web-Centric Analysis

Fuentes: INDUSTRY AND INNOVATION

Volume: 19

Edición: 4

Páginas: 367-325

Publicado: 2012

Resumen: Transactions in intellectual property (IP) assets occur either directly or with the assistance of a third party. Focusing on the latter, this paper explores IP, notably patent, intermediaries in Europe. Previous research mainly focused on more developed IP markets such as the United States and Japan, and little attention was paid to IP specialist firms in the European market for technology. Using patent data publicly available from IP databases, we describe the geography of IP intermediaries operating in Europe along with other functional characteristics. Applying content analysis technique to the activities reported on IP intermediaries' websites, we derive information on their services offerings and degrees of specialization. By examining IP intermediaries' characteristics, their services and the relationships between them, we discuss the co-evolution of IP intermediaries and the European market for technology. The limitations of the study and avenues for further research are presented finally.

Número de acceso: CCG-0003-014560000

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ISSN: 1386-717X

Registro 19 de 36

Autor(es): Kito, R (Kito, Romano); Harvey, G (Harvey, Gill); Walsh, K (Walsh, Karen)

Título: Collaborations for Leadership in Applied Health Research and Care: Lessons from the Theory of Communities of Practice

Fuentes: IMPLEMENTATION SCIENCE

Volume: 6

Páginas: 85-94

Publicado: JUL 23 2011

Resumen: Background: The paper brings together analytical and instrumental perspectives on communities of practice (CoPs) to reflect on potential challenges...
that may arise in the process of interprofessional and inter-organisational joint working within the Collaborations for Leadership in Applied Health Research and Care (CLAHRCs). These partnerships between the universities and National Health Service (NHS) Trusts aim at conducting applied health research and translating its findings into day-to-day clinical practice.

Discussion: The paper discusses several theoretical literatures on CoPs as well as previous empirical research on the role of those communities in healthcare collaboration, which is organised around the following three themes: knowledge sharing within and across CoPs, CoP formation and manageability, and identity building in CoPs. It argues that the multi-professional and multi-agency nature of the CLAHRCs operating in the traditionally demarcated organisational landscape of the NHS may present formidable obstacles to knowledge sharing between various professional groupings, formations of a shared "collaborative identity", and the development of new communities within the CLAHRCs. To cross multiple boundaries between existing professional and organisational communities and hence enable the flow of knowledge, the CLAHRCs will have to create an effective system of ‘bridges’ involving knowledge brokers, boundary objects, and cross-disciplinary interactions as well as address a number of issues related to professional and organisational identification.

Summary: The CoP approach as a complement to traditional ‘stage-change’ theories used in the field of implementation research and provide a basis for designing theory-informed interventions and evaluations. It can help to illuminate multiple boundaries that exist between professional and organisational groups within the CLAHRCs and suggest ways of crossing those boundaries to enable knowledge transfer and organisational learning. Achieving the aims of the CLAHRCs and predicting a sustainable change in the ways applied health research is conducted and implemented may be influenced by how effectively these organisations can navigate through the multiple CoPs involved and promote the development of new multi-professional and multi-organisational communities united by shared practice and a shared sense of belonging—an assumption that needs to be explored by further empirical research.

Número de acesso: CCC:0000/3295/38800001

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<td>Harvey, Julian</td>
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<td>0000-0003-7270-7401</td>
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ISSN: 1748-5908

Registo 23 de 35

Autor(es): Delli’Era, C; Delli’Era, Claudio; Buganza, T; Buganza, Tommaso; Fecoio, C; Fecoio, Camilla; Varganti, R; Varganti, Roberto

Título: Language Brokering, Stimulating Creativity during the Concept Development Phase

Fotão: CREATIVITY AND INNOVATION MANAGEMENT

Volume: 20

Edição: 1

Páginas: 36-44

Publicado: MAP 2011

DOI: 10.1311/1467-8691.2010.00594.x

Resumo: To improve product styling and ergonomics, a growing number of companies are exploring new ways to involve design consultants in their innovation processes. Many studies have underlined the importance of designers in the innovation processes of successful companies, and some designers have achieved superstars’ status. By capturing, recombining and integrating existing cultural knowledge and production semantics across social and industrial settings, designers can help create breakthrough product meanings. The relationship between briefs written by managers and solutions developed by designers is quite complex. Very often managers are unable to appropriately communicate and commercialise new products and services conceptualized by designers because they know only the final output of the innovation process rather than its entire story. The Language Brokering model can enrich the dialectic between managers and designers, and consequently, it can improve both current and future innovation projects. This methodology elucidates the structure of a design process adopted by several designers and also illustrates an effective framework for communicating, choosing and managing designers. We present results from a small pilot application of the methodology in the development of a new product-service system for Aquarius (a brand of the Coca-Cola Group) for two target demographics: ‘desperate heaviusers’ and ‘young adults’.

Número de acesso: CCC:0000/3295/38800001

ISSN: 0563-1690

Registo 22 de 35

Autor(es): Conklin, J; Conklin, James; Koithar, A; Koithar, Anita; Stoele, P; Stoele, Paul; Chambers, L; Chambers, Larry; Forbes, D; Forbes, Dorothy; Le Clair, X; Le Clair, Ken

Título: Knowledge-to-action processes in SRTINH collaborative communities of practice - A study protocol

Fontão: IMP. - AML/INSTITUT SCIENCE.

Volume: 6

Páginas: 3-17

Publicado: FEB 11 2011

DOI: 10.17266/1744-5908-6-12

Resumo: The " ignorant " The SERTINH Health Research Transfer Network (SRTINH) Collaborative is a network of networks that work together to improve the health and health care of Ontario seniors. The collaborative facilitates knowledge exchange through a library service, knowledge brokers (KOs), local implementation teams, collaborative technology, and, most importantly, Communities of Practice (CoPs) whose members work together to identify innovations, translate evidence, and help implement changes. This project aims to increase our understanding of knowledge-to-action (KTA) processes mobilized through SRTINH CoPs that are working to improve the health of Ontario seniors. For this research, KTA refers to the movement of research and experience-based knowledge within social contexts, and the use of that knowledge to improve practice. We will examine the KTA processes themselves, as well as the role of human agents within those processes. The conceptual framework we have adopted to inform our research is the Promoting Action on Research Implementation in Health Services (PARIHS) framework. Methods/design: This study will use a multiple case study design (minimum of nine cases over three years) to investigate how SHRTINH CoPs work and pursue knowledge exchange in different situations. Each case will yield a unique narrative, framed around the three PARIHS dimensions: evidence, context, and facilitation. Together, the cases will shed light on how SHRTINH CoPs approach their knowledge exchange initiatives, and how they respond to challenges and achieve their objectives. Data will be collected using interviews, document analysis, and ethnographic observation. Discussion: This research will generate new knowledge about the defining characteristics of CoPs operating in the health system, on leadership roles in CoPs, and on the nature of interaction processes, relationships, and knowledge exchange mechanisms. Our work will yield a better understanding of the factors that contribute to the success or failure of KTA initiatives, and create a better understanding of how local caregiving contexts interact with specific initiatives. Our participatory design will allow stakeholders to influence the practical usefulness of our findings and contribute to improved health services delivery for seniors.

Número de acesso: CCC:0000/3295/38800001

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<td>Gomes, Leonardo S</td>
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**Resumo:**
Este artigo aborda o aspecto relativo da variabilidade no desenho e inovação na cultura e na produção da indústria dos serviços, destacando a importância da geografia dos serviços e a interação entre diferentes tipos de serviços e geografias. A discussão abrange a forma como a inovação e a geografia dos serviços interagem, explorando a distribuição e a natureza geográfica do desenho e da inovação.

**Números de acesso:**
- DOI: 10.1507/01589015051558
- URL: http://www.wileyonlinelibrary.com/doi/10.1507/01589015051558

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<td>Liethenhalter, U (Lichtenhalter, Ulrich); Ernst, H (Ernst, Holger)</td>
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**Números de acesso:**
- DOI: 10.1507/01589015051558
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<td>Chiarori, D (Chiarori, Daniele); Cilia, V (Chiesa, Vittorio); De Massi, A (De Massi, Alfedo); Frattini, F (Frattini, Federico)</td>
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**Números de acesso:**
- DOI: 10.1507/01589015051558
- URL: http://www.wileyonlinelibrary.com/doi/10.1507/01589015051558
03/08/2018

Título: The knowledge bridging role of Technical and Scientific Services in knowledge-intensive industries

Fonte: INTERNATIONAL JOURNAL OF TECHNOLOGY MANAGEMENT

Volume: 41
Relatório: 3-4
Páginas: 243-272
Publicado: 2008

DOI: 10.5555/ITM.2008.016.003

Resumo: Technical and Scientific Services (TSS) have been largely acknowledged by scholars and policy makers as means of knowledge transfer and co-creation within an innovation system. The paper argues that TSS play a critical technology bridging function especially in knowledge intensive industries, significantly contributing to the development and growth. This issue is investigated through an extensive analysis of the Italian biotech and nanotech industries. The results demonstrate that TSS actually serve as technology bridges along the stages of the technology intensive industry’s life cycle, connecting sources of technical knowledge (e.g. universities) with recipient organizations (e.g. large private companies), that use the transferred technology to improve their products or services. The major achievement is that TSS do not play just a 'bridge' function; they perform in the acquired technology value-added activities (i.e. personalization or recombination) the recipient organizations are willing to pay for, thus ensuring the sustainability of the TSS firm business model.

Número de acesso: CCC:000232245000002

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Registro 27 de 36

Título: How the Internet affects output and performance at community banks

Fonte: JOURNAL OF BANKING & FINANCE

Volume: 31
Edição: 4
Páginas: 1083-1090
Publicado: APR 2007

DOI: 10.1016/j.jbankfin.2006.02.003

Resumo: Internet websites have become an important alternative distribution channel for most banking institutions. However, we still know little about the impact of this delivery channel on bank performance. We observe 414 community banks among the first wave of US banks to adopt transactional banking websites in the late 1990s, and compare the change in their 1995–2001 financial performance to that of 517 branching only community banks. Whereas today virtually all viable community banking franchises offer the internet banking channel, studying this earlier time period allows us to make clean comparisons between substrates of "brick-and-mortar" and "click-and-mortar" community banks. We find that internet adoption improved community bank profitability, chiefly through increased revenues from deposit service charges. Internet adoption was also associated with movements of deposits from checking accounts to money market deposit accounts, increased use of brokered deposits, and higher average wage rates for bank employees. We find little evidence of changes in loan portfolio risk. Our findings suggest that those initial click-and-mortar banks (and their customers) used the Internet channel as a complements to, rather than a substitute for, physical branches.

Número de acesso: CCC:000246024300005

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Registro 28 de 36

Título: Life cycle flexibility: How to measure and improve the innovative capability in turbulent environments

Fonte: JOURNAL OF PRODUCT INNOVATION MANAGEMENT

Volume: 23
Edição: 5
Páginas: 303-407
Publicado: SEP 2006

DOI: 10.1111/j.1540-5885.2006.00212.x

Resumo: Managing innovation in rapidly moving environments, such as Internet-based services, is a major challenge for the consolidated theories on product and service development. The innovation management literature identifies flexibility as the right way for coping with such challenges. By increasing the development process flexibility, it is possible to reduce the development time as well as the time and cost needed for last-minute concept changes. But this is not enough. The product or service must be so flexible after it has been released. A life cycle flexibility (LCF) must be pursued. Focused on the Italian on-line discount brokers industry, this article is a result of a two-staged research process that started with a qualitative explorative phase (i.e., case-study methodology) and ended with a quantitative explorative one (i.e., questionnaire methodology). It identifies three different LCF dimensions—frequency of adaptation, rate of adaptation, and quality of adaptation—and it defines a metric for each of them. Subsequently, it identifies five managerial and operational practices that increase at least one of the three LCF dimensions: (1) to manage the back-end technological competences; (2) to share the front-end technological competences with external suppliers; (3) to utilize open and standard technologies; (4) to have a low formalization of the new service development (NSD) procedures; and (5) to have high formalization of the NSD organization.

Número de acesso: CCC:000246021700002

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Registro 29 de 36

Título: Determining relationship quality in the development of business-to-business financial services

Fonte: JOURNAL OF BUSINESS- TO-BUSINESS MARKETING


Page 195
03/08/2018
Web of Science (v.25.29) - GCC Exportar: Servicio de transcripción

Volume: 13
Edición: 1
Páginas: 87-120
Publicación: 2008
DOI: 10.1300/J393v13n01_09

Resumen: The quality of relationships built with customers during the New Service Development (NSD) process is a current concern of researchers in relationship marketing (and NSD) and is particularly important in a highly competitive environment characterised by rapidly changing customer needs like the one of financial services. The primary relationship analyzed in relationship marketing is the one between seller and buyer, but the focal type of relationship for new product and service development is the one termed "the knowledge relationship" (Summerville 2002), a relationship used to create new knowledge. This paper reports the results of an in-depth qualitative research on the factors that impact on the quality of such relationships developed between new service developers and their customers during the NSD process of business-to-business financial services. Results show that the most important factors that affect relationship quality are: communication quality of the relationship; the development of strong relationship bonds; the quality of relationship partners; a strong customer orientation in NSD based on a proactive approach of relationship partners during the NSD process; and, proficiency in knowledge brokering.

Número de acceso: CCC/63902364757680003
ISSN: 1051-712X

Registro: 30 de 36
Autor(es): Moline, E (Moline, E); de la Fuente, JL (de la Fuente, JL)
Título: Innovation management: experience from the perspective of the electric power industry
Fuente: INTERNATIONAL JOURNAL OF TECHNOLOGY MANAGEMENT
Edición: 5
Páginas: 483-488
Publicación: 2002
DOI: 10.1591/ITM.2002.5.03922

Resumen: IBERDROLA’s Corporate Unit for Research and Development (R&D) is charged with the task of defining the strategy, general policies, and criteria of technological innovation that shape the development of projects and the utilization and commercialisation of products and services.

With this aim in view, several tools to assist innovation management have been developed. The "Technological Information Office (GIT)" and the Database of Research Concepts and Contacts have been designed to help create knowledge of the firm’s sphere of action. The role of the R&D Project Appraisal Methodology is to aid in the selection of innovative projects that allow the firm to be competitive in the market.

The R&D is a service of IBERDROLA that responds to the technological monitoring requests of the professionals who work in the areas of Research, Technological Development, and Innovation. The R&D is part of an institutional service that acts as a capacity of information (broker) making use of the technology of the World Wide Web (internet).

The Database of Research Concepts and Contacts is one of the underpinning of the GIT. This database furnishes information relative to leading institutions and researchers in their fields so as to carry out activities in technological areas of interest to IBERDROLA. The information gathered defines the scientific and technological environment that serves the firm as benchmark.

The aim of R&D project appraisal methodology is to optimise the allocation of R&D resources through the prioritisation and selection of R&D projects and programs. To evaluate the merits of each project as well as the costs and risks associated, criteria consistent with IBERDROLA’s strategic objectives have been established.

This article explains the characteristics of those tools and their different stages of exploitation, as well as the results obtained.

Número de acceso: CCC/63901744265600008
ISSN: 0277-794C

Registro: 31 de 36
Autor(es): Seshachary, SV (Seshachary, SV); Vardanian, R (Vardanian, R)
Título: Troika Dialog's Founder Ruben Vardanian on building Russia's first investment bank
Fuente: ACADEMY OF MANAGEMENT EXECUTIVE
Volume: 15
Edición: 4
Páginas: 16-23
Publicación: NOV 2001
DOI: 10.5465/AME.2001.5.162646

Resumen: Troika Dialog, founded in 1994, has the longest operating history among Russian investment banking and securities firms. It offers a full range of investing and financial services to domestic companies and multinationals in Russia, as well as a series of funds for private and government-owned clients. Troika Dialog is also Russia’s leading mutual fund manager, being one of the first companies to trade domestic Russian shares. It quotes nearly 150 securities on the Russian Trading System, which it founded. In 2000, the firm accounted for more than 50 percent of the volume of shares traded, nearly double that of its nearest competitor. Troika Dialog has been ranked consistently as Russia’s best investment icon and best securities firm by the World Economic Forum, Euromoney magazine, and RIAI Information Agency, among others. Troika Dialog was also ranked number one for Russian financial research, in a 2001 Thomson Financial survey. Its comprehensive tracking of companies and stocks, as well as its authoritative reports on corporate governance, innovation in the industry. Managing $1.9 billion in portfolio investments, the company realized net income of $2 million in the first nine months of 2000. Troika Dialog employs more than 350 people in Moscow and four branches throughout Russia’s regions. Its subsidiary, Troika Dialog USA, an SEC-regulated firm based in New York, serves Western Institutional clients. Troika’s affiliate, Troika Dialog Asset Management, manages the first open-ended mutual fund in the U.S. devoted to Russian equities, with $200 million under management.

Ruben K. Vardanian is president and CEO of Troika Dialog. In 1991, at age 22 he and a small group of Russian students specializing in finance, along with American banker Peter Derby, founded Troika Dialog, Russia’s first investment bank. In 1992, Mr. Vardanian was appointed as CEO, and became president and CEO in 1996. He is a long-serving member of the boards of directors of major organizations in Russia, including the National Association of Securities Market Participants, the Russian Trading System, and the Bank of Moscow. He is a member of the Russian Union of Industrialists and Entrepreneurs, and a founder of Club 2015, a group of Russian executives advocating ethical business practices and transparency. In 2000, the American Chamber of Commerce in Russia named Mr. Vardanian Businessperson of the Year, in recognition of his contributions to business and his commitment to the highest standards of business ethics. The World Economic Forum also recognized him in 2000 as one of the top 100 global leaders for tomorrow. In 2001, Fortune magazine included him as one of the 15 next-generation global leaders. Mr. Vardanian was born in Yerevan, Armenia, in 1968. He has a master’s degree in finance from Moscow State University, and has attended financial and executive programs at Bocconi CRT in Italy, INSEAD in France.

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and Merrill Lynch and Harvard Business School in the U.S. In this interview, Mr. Vandanian explains how he has successfully grown his company, from a time when capital markets were nonexistent in Russia, based on his vision of eventually running "a normal business in a normal country."

Número de acceso: CCC:0001733300300005
ISSN: 0896-3189

Registro 32 de 36
Autor(es): Holloway, F (Holloway, F); Carson, J (Carson, J)
Título: Case management: An update
Fonte: INTERNATIONAL JOURNAL OF SOCIAL PSYCHIATRY
Volume: 47
Edição: 1
Páginas: 21-31
Publicado: FAL 2001
DOI: 10.1177/0020745820030003

Resumo: Background: Case management in various forms represents a major innovation in mental health care. Its efficacy remains controversial. Aims: To update after a decade a previous review article (Holloway, 1991).

Methods: Descriptive literature and controlled trials of case management and its derivative Assertive Community Treatment (ACT) were accessed through four comprehensive and systematic reviews of the literature, repeated Medline and Embase searches and personal contacts.

Results and Conclusions: The concept of case management has continued to evolve over the past decade. No controlled trial has been published exploring the model of case manager as a service broker without responsibility for the provision of care. Basic case management principles have frequently been incorporated into routine clinical practice. Published controlled trials of ACT, which were almost exclusively carried out in North America, have shown markedly positive results. However, caution is required in extrapolating these findings to routine clinical practice within different systems of health and social care. Case management is not in itself as effective treatment for severe mental illness.

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ID Published: 11209333
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ISSN: 0020-7616

Registro 33 de 36
Autor(es): Hargadon, A (Hargadon, A); Sutton, R (Sutton, R)
Título: Building an innovation factory
Fonte: HARVARD BUSINESS REVIEW
Volume: 78
Edição: 1
Páginas: 157-
Publicado: MAY-JUN 2001

Resumo: New ideas are the precious currency of the new economy, but generating them does not have to be a mysterious process. The image of the lone genius inventing from scratch is a romantic fiction. Businesses that constantly innovate have systematized the production and testing of new ideas, and the system can be replicated by practically any organization. The best innovators use old ideas as the raw materials for new ideas, a strategy the authors call knowledge brokering. The system for sustaining innovation is the knowledge brokering cycle, and the authors discuss its four parts. The first is capturing good ideas from a wide variety of sources. The second is keeping those ideas alive by passing them, discussing them, and using them. Imagining new uses for old ideas is the third part—some knowledge brokers encourage cross-pollination by creating physical layouts that allow, or even force, people to interact with one another. The fourth is turning promising concepts into real services, products, processes, or busness models. Companies can use all or part of the cycle. Large companies in particular desperately need to move ideas from one place to another. Some will want to build full-fledged consulting groups dedicated to internal knowledge brokering. Others can hire people who have fixed problems similar to the companies' current problems. The most important lesson is that business leaders must change how they think about innovation, and they must change how their company cultures reflect that thinking.

Número de acceso: CCC:00000000901000517
ID Published: 11189777
ISSN: 0017-8012

Registro 34 de 36
Autor(es): Bedo, J (Bedo, J); Cohen, N (Cohen, N); Sullivan, A (Sullivan, A)
Título: Case management: The current best practices and the next generation of innovation
Fonte: COMMUNITY MENTAL HEALTH JOURNAL
Volume: 36
Edição: 2
Páginas: 179-184
Publicado: APR 2000
DOI: 10.1023/A:1004111127

Resumo: Eight published literature reviews of case management were evaluated to determine a set of consensus regarding outcomes associated with full service, broker, and hybrid models. Full service was recommended for "best practice" status and the effectiveness of the broker model was seriously questioned. Research evaluating paraprofessional and peer assisted models of case management, a potential method for improving outcomes, was also reviewed. One promising peer-enriched model was identified and described. Although the use of paraprofessionals and peers in case management holds promise, much more research is needed before the effectiveness of this approach can be confidently determined.

Número de acceso: CCC:0000000090100004
ID Published: 1082986
ISSN: 0010-3853

Registro 35 de 36
Autor(es): Rusten, G (Rusten, G)
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Título: Geographical outsourcing: Business service provisions among firms in Norway
Fonte: TUJSCHIFF FÜR ECONOMISCHE EN SOZIALE GEOGRAFIE
Volume: 91
Edição: 2
Páginas: 122-134
Publicado: 2009
DOI: 10.13111/1467-9963.00100
Resume: This paper examines how business service provision partly relies on user firms' internal resources, strategies and location depending on what can be obtained locally or is feasible to import elsewhere. Empirical evidence from small- and medium-sized firms in three manufacturing industries in Norway shows that strategies searching for suitable suppliers can be divided into different categories, including one in which choice of service providers reflects a policy commitment to buy locally. A second type of strategy is when the choice of subcontractor is a result of a wide professional search process across regions in order to find the best alternative. A third is where service relations are co-ordinated by a parent company or third party firms, and finally, there is a group of firms that have not yet felt the matter of choice of service supplier to be an issue. These results add new elements to the discussion about the competitive role of industrial relations.
Número de acesso: CCC000068273000002
ISSN: 0340-714X

Registro 35 de 36

Título: Regulating exchanges and alternative trading systems: A law and economics perspective
Fonte: JOURNAL OF LEGAL STUDIES
Volume: 28
Edição: 1
Páginas: 17-55
Publicado: JAN 1999
DOI: 10.1086/408045
Resume: How trading technologies are transforming securities markets, and with their rise have come important questions regarding the regulation of new and traditional trading mechanisms. This article provides a law and economics perspective on the regulation of alternative trading systems. We argue that alternative trading systems play a distinct role in the market and in particular solve the conflict-of-interest problem that exists between brokers and dealers. We propose a general strategy for their regulation that incorporates this economic role. We suggest a regulatory framework that permits providers of services to opt into particular regulatory frameworks as a way of fostering innovation and competition. The fundamental approach we outline is consistent with the Securities and Exchange Commission’s regulatory objectives of fairness, efficiency, and transparency of market transactions.
Número de acesso: CCC000068458000002
ISSN: 0947-5359

Web of Science
Página 1 (Registros 1 – 36)

Clarivate
Aprendendo a inovação


Page 198
4. Search 4 = knowledge brokers + service innovation (25 results)
Registro 1 de 25

Autor(es): Bennett, S; Bennett, Sara; Lagomarsino, G; Lagomarsino, Gina; Kwekovich, J; Kwekovich, Jeffrey; Lucas, H; Lucas, Henry

Título: Accelerating learning for one-poor health markets

Fonte: GLOBALIZATION AND HEALTH

Volume: 10

Páginas: 54-54

Publicado: JUN 2014

Resumo: Background: Given the rapid evolution of health markets, learning is key to promoting the identification and uptake of health market policies and practices that best serve the needs of the poor. However, there are significant challenges to learning about health markets. We discuss the different forms that learning takes, from the development of codified scientific knowledge, through to experience-based learning, all in the relationship to health markets.

Discussion: Notable challenges to learning in health markets include the difficulty of acquiring data from private health care providers, designing evaluations that capture the complex dynamics present within health markets and developing communities of practice that encompass the diverse actors present within health markets, and building trust and mutual understanding across these groups. The paper proposes experimentation with country-specific market data platforms that can integrate relevant evidence from different data sources, and simultaneously exploring strategies to secure better information on private providers and health markets. Possible approaches to adapting evaluation designs so that they are better able to take account of different and changing contexts are also discussed. Both capturing informal knowledge about health markets is key. Communities of practice that bridge different health market actors can help to share such experience-based knowledge and in so doing, may help to foster it. More pragmatically, focused communities of practice are needed, and such communities may be supported by innovation brokers and built around member-based organisations.

Summary: Strategic investment in and support to learning about health markets can address some of the challenges experienced to-date, and accelerate learning that supports health markets that serve the poor.

Número de acesso: CCC:00000137286700001

ID PubMed: 24561731

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ISSN: 1744-8603

Registro 2 de 25

Autor(es): Homburg, V; Homburg, Vincent; Dijskhouw, A; Dijskhouw, Andrea; Thaens, M; Thaens, Marcell

Título: Diffusion of Personalised Services among Dutch Municipalities: Evolving Channels of Persuasion

Fonte: LOCAL GOVERNMENT STUDIES

Volume: 40

Edição: 3

Páginas: 425-446

Publicado: JUN 2014

Resumo: Many European countries, municipalities are becoming increasingly important as providers of public electronic services to their citizens. One of the horizons for further expansion is the delivery of personalised electronic services. In this article we describe the diffusion of personalised services in the ten largest Dutch municipalities and investigate how and why various municipal policies adopted personalised electronic services. In achieving this, we analyse data that were gathered during interviews with key stakeholders in 10 selected Dutch municipalities. We synthesise the findings in an explanatory model of personalisation of electronic service delivery diffusion. The model emphasises persuasive pressures that are channelled to potential adopters of personalised services. Furthermore, the model shows how persuasive pressure (as perceived by adopters) is followed up by organisational search activities, and how, in various circumstances, the idea of personalisation has been framed by innovation champions, knowledge brokers and new members of staff to appeal to specific organisational priorities and ambitions. In doing so, this article contributes to an institutional view on adoption and diffusion of innovations, in which (1) horizontal and vertical channels of persuasion and (2) human agency, rather than technological opportunity and rational cost benefit considerations, account for actual diffusion of innovation.

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ISSN: 0300-3930

Registro 3 de 25

Autor(es): Lupton, N; Lupton, Nathaniel; Beamish, P; Beamish, Paul

Título: Organisational structure and knowledge-practice diffusion in the NMC

Fonte: JOURNAL OF KNOWLEDGE MANAGEMENT

Volume: 15

Edição: 1

Páginas: 726-727

Publicado: 2014

Resumo: Purpose - This study aims to examine the interaction of formal and informal cross-border knowledge-sharing practices of four large multinational corporations (MNCs) in aerospace, software, IT services and telecommunications industries. The goal was to determine the manner in which coordination and control mechanisms facilitated knowledge transfer.

Design/methodology/approach - Case studies comprised secondary data and semi-structured interviews with corporate headquarters and subsidiary managers. In large NMCs conducted in the USA, Canada, Mexico, China, India and Eastern Europe.

Findings - The primary finding of this study is that knowledge transfer mechanisms arise as a result of both formal and informal structures of the NMC. Formal structures which create either mutual dependencies or occasions for knowledge exchange facilitate transfer. Formal structure which inhibits
Registo 7 de 25
Autor(es): Burke, N (Burgess, Nicola); Currie, G (Currie, Graeme)
Título: The Knowledge Brokering Role of the Hybrid Middle Management: the Case of Healthcare
Fonte: BRITISH JOURNAL OF MANAGEMENT
Volume: 24
Suplemento: 1
Edição especial: SI
Páginas: S132-S142
Publicado: SEF 2013
Resumo: In the literature it is argued that middle-level managers (MLMs) enact a strategic role in public sector organizations, at the same time as there exist calls for their disengagement from those frontline services can be protected. Such calls do not recognize the strategic importance of the hybrid MLM, who crossing professional frontline and managerial domains. Drawing upon the example of their managerial role in healthcare, we highlight that the hybrid MLM enacts a strategic knowledge brokering role and outline contrasting factors framing this more strategic role.
Número de acesso: C000000200800000
ISSN: 1093-1172

Registo 8 de 25
Autor(es): Ellen, ME (Ellen, Morah E); Leen, G (Leo, Gregory); Roachard, G (Rouchard, Gesile); Lewis, JH (Lavis, John N); Quinnet, H (Quimet, Mathieu); Grimshaw, JH (Grimshaw, Jenny M)
Título: What supports do health system organizations have in place to facilitate evidence-informed decision making? a qualitative study
Fonte: IMPLEMENTATION SCIENCE
Volume: 8
Páginas: 84-86
Publicado: AUG 6 2013
Resumo: The keywords: decisions regarding health systems are sometimes made without the input of timely, and reliable evidence, leading to less than optimal health outcomes. Healthcare organizations can implement tools and infrastructures to support the use of research evidence to inform decision-making.
Objetivos: The purpose of this study was to profile the supports and instruments (i.e., programs, interventions, instructions or tools) that healthcare organizations currently have in place and which ones were perceived to facilitate evidence-informed decision-making.
Métodos: In-depth semi-structured telephone interviews were conducted with individuals in three different types of positions (i.e., a senior management team member, a library manager, and a knowledge broker) in three types of healthcare organizations (i.e., regional health authorities, hospitals, and health research organizations) in two Canadian provinces (i.e., Ontario and Quebec). The interviews were taped, transcribed, and then analyzed thematically using NVivo 5 qualitative data analysis software.
Resultados: A total of 27 interviews were conducted in 25 organizations in Ontario and Quebec. The main findings suggest that, for the healthcare organizations that participated in this study, the following supports facilitate evidence-informed decision-making: facilitating roles that actively promote research use within the organization; establishing ties to researchers and opinion leaders outside the organization; a technical infrastructure that provides access to research evidence, such as databases, and provision and participation in training programs to enhance staffs capability building.
Conclusões: This study identified the need for having a receptive climate, which laid the foundation for the implementation of other tangible initiatives and supported the use of research in decision-making. This study adds to the literature on organizations' efforts that can increase the use of research evidence in decision-making. Some of the identified supports may increase the use of research evidence by decision makers, which may then lead to more informed decisions, and hopefully a strengthened health system and improved health.
Número de acesso: C000022008010002
ID Published: 29152579
Identificados de autor:
03/08/2018
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It is both in isolated clusters, such as silos and professional "tribes," in need of connectivity. It is a key challenge in health service management to understand, analyse and exploit the role of key agents who have the capacity to connect disparate groupings in larger systems.

Methods: The empirical, peer reviewed, network theory literature on brokerage roles was reviewed for the years 1994 to 2011 following PREMIA guidelines.

Results: The 26 articles that made up the final literature set were from a wide range of settings and contexts not just health care. Methods of data collection, analysis, and the ways in which brokers were identified varied greatly. We found four main themes addressed in the literature: identifying brokers and brokerage opportunities, generation and integration of innovation, knowledge brokerage, and trust. The benefits as well as the costs of brokerage roles were examined.

Conclusion: Collaborative networks by definition, seek to bring discrete groups together so that they can work effectively and synergistically together. Brokers can support the controlled transfer of specialised knowledge between groups, increase cooperation by liaising with people from both sides of the gap, and improve efficiency by introducing "good ideas" from one isolated setting into another.

There are significant costs to brokerage. Densely linked networks are more efficient at diffusing information to all their members when compared to sparsely linked groups. This means that while a bridge across a structural hole allows information to reach actors that were previously isolated, it is not the most efficient way to transfer information. Brokers who become the holders of-, or the gatekeepers to, specialised knowledge or resources can become overvalued by the role and so need support in order to function optimally.

Núméro de acesso: CCC00031316576600001
ID Publicado: 23631517
ISSN: 1472-6963

Registro 10 de 25
Autor(es): Hamman, H; Hamman, M; Amara, A; N (Amara, Nabil); R (Randy, Dejan)
Título: Organizational climate and its influence on brokers' knowledge transfer activities: A structural equation modeling
Resumo: The purpose of this paper is to gain a better understanding of the processes involved in transferring knowledge into action. Obviously an interesting subject of research, it is worthwhile delving into the role played by knowledge brokers in bridging the gap between research and practice. This paper investigates the relationship between organizational climate and brokers' knowledge transfer activities. The structural equation model was tested, using survey data from 301 respondents who primarily carry out their professional activities in health services, such as knowledge brokers. The results suggest two major findings: first, that the organizational climate as a multidimensional construct has a direct positive impact on the brokers' knowledge transfer activities; secondly, that the organizational climate, characterized by the autonomy granted to brokers, is a cooperative climate plays an indirect role in affecting the knowledge transfer activities through the mediation of the organizational support provided to brokers. (C) 2012 Elsevier Ltd. All rights reserved.
Núméro de acesso: CCC0003131331000012
ISSN: 0268-1012

Registro 13 de 25
Autor(es): Fox, D; Fox, G; Gwinn, L; Smith, JS; Smith, Jeffrey S.; Convin, J; Convin, J; Joseph, Jr.; Bronca, M; Brusca, Michael
Título: Weaving webs of innovation
Resumo: Purpose - This research aims to utilize a social network analysis approach to examine the effect of organisational position within a network of strategic partnerships on innovation as measured by perceptions of industry analysts. Specifically, the purpose of the paper is to examine how network characteristics such as degree centrality (being centrally located in a network), between centrality (being positioned as an intermediary), and closeness centrality (having a short average distance to all other firms in the network) affect the innovation ranking of the focal firm. Design/methodology/approach - Data for 563 firms are generated from three distinct data sources (DCC Platinum Alliances and Joint Ventures, COMPSTAT, and Fortune's America's Most Admired Companies) and analyzed via social network analysis and linear regression. Findings - The network characteristics of degree centrality, and between centrality positively relate to industry perceptions on innovativeness whereas closeness centrality had no significant effect. Additionally, there were no discernable differences in innovativeness when comparing manufacturing firms to service organizations. Research limitations/implications - Insignificant findings related to closeness centrality and the good/service differential may be attributable to the data sources, in that, the information is limited to firms within the respective sources. This data limitation may limit the potential of examining the effect of all network characteristics. Additionally, some included companies participate in multiple industries (i.e., have multiple SIC codes), which may serve as the blurring of any differences between good and service firms. Practical implications - The results highlight the importance of considering strategic partnerships that establish configurations of partnership webs when pursuing innovation activities. Specifically, the findings suggest that firms should seek numerous strategic partnerships (high degree centrality) and attempt to broker information or control the extent to which partners collaborate (high between centrality). These results provide insights for firms seeking to establish new supply chain relational ties in order to enhance their level of innovation.
Originality/value - This research provides a unique empirical examination of the impact of network positional characteristics on the innovativeness of a focal firm.
Núméro de acesso: CCC000316234400002
ISSN: 0144-3577

Registro 12 de 25
Autor(es): Klein, J; Klein, K; Levina, J; Proctor, A; Proctor, Amy
Título: Beyond fragmentation and doppelgängers: Netwokks for knowledge exchange in the English land management advisory system
Resumo: The growing multifunctionality in agriculture, combined with privatization of previously public agricultural extension services, has resulted in a pluralistic land management advisory system. Despite benefits in terms of increased client orientation and greater advisor diversity, it is argued that these changes have resulted in the fragmentation of the land management advisory system and a reduction in interaction within the advisory system and between the advisory system and science. These concerns have been voiced as regards the usefulness of the advisory system to be able to incorporate new knowledge, resulting in a growing interest in how advisors obtain and construct the knowledge necessary for offering adequate advisory services to their clients. In this article we explore how advisors within the English land management advisory system (land agents, applied ecologists and veterinarians) develop and optimise their knowledge by engaging in different kinds of networks (centralised, distributed and decentralised), each of which employs a different type of social capital. Key findings suggest that to obtain the knowledge needed to solve complex queries of clients, advisors utilise both networks and draw upon informal communities of practice within their own advisory profession characterised by bonding social capital, but also draw upon broader `networks of practice' involving multiple advisors from different advisory professions, which rely on bridging social capital. The employment of decentralised networks which rely on linking social capital, to solve complex queries or developing services, for example through contacts with scientific institutes, appears to be less developed, despite brokering activities of the professional associations. Whereas fragmentation and disconnect due to competition and epidemiological differences do play a role; they do not appear to prevent overall knowledge exchange among advisors within and across different professions. Assumptions of a collapse of interaction within the land management advisory system are not supported by the evidence, as there appears to be much bonding and bridging social capital. However, to optimise interactions between professions, and between advisors and the science system, either informal brokers or formal brokers in the 'form of professional associations or other organisations could play a bigger role' (C) 2012 Elsevier Ltd. All rights reserved.

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ISSN: 0348-5337

Registro 13 de 25

Autores: Feller, J (Feller, Joseph); Finnergan, P (Finnergan, Patricia); Hayes, J (Hayes, Jeremy); O'Reilly, P (O'Reilly, Philip)

Título: "Orchestrating" sustainable crosscounselling: A characterisation of solver brokerages

Fonte: JOURNAL OF STRATEGIC INFORMATION SYSTEMS

Volume: 21

Edição: 1

Páginas: 216-232

Publicado: SEP. 2012

Resumo: Examples of open innovation have revealed that intellectual property (IP) need not only be sourced through existing hierarchical or market relationships. As IP can be acquired from individuals and firms with whom an organisation has a prior relationship. In such cases, an intermediary, operating as an innovation exchange or brokerage, frequently facilitates the development and acquisition of IP. This paper examines one type of innovation intermediary, the ‘Solver Brokerage,’ which enables innovation exchanges between organizations and unknown external firms and individuals (i.e. a crowdourcing process). While the commercial success of Solver brokerages indicates the potential of arguments concerning the potential of crowdcounselling, this is known about the operation of such brokerages or the crowdcounselling processes that they enable. This paper examines extant research on innovation networks, crowdcounselling, and electronic marketplaces to identify three processes (knowledge mobility, appropriability and stability) that we argue are necessary to ‘orchestrate’ crowdcounselling. Using a field study of four Solver Brokerages, an innovation seeking organization, as well as 15 innovation providers (i.e. inventors of the crowd) the paper measures the ways in which the three processes are enhanced in Solver Brokerages. It reveals that while knowledge mobility and appropriability processes can be enhanced by activities under the control of the Solver Brokerage, stability is largely determined by innovation seeking organizations and the innovation providers. The paper concludes that broker provided value-added ‘orchestration’ services need to enable knowledge mobility and appropriability, and to ensure that ‘unsuccessful’ innovation seekers are providers appropriate sufficient value to participate again. (C) 2012 Elsevier Ltd. All rights reserved.

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ISSN: 0953-5837

Registro 14 de 25

Autores: Ward, V (Ward, Vicky); Smith, S (Smith, Simon); House, A (House, Allan); Hamer, S (Hamer, Susan)

Título: Evolving knowledge exchange: A useful framework for practice and policy

Fonte: SOCIAL SCIENCE & MEDICINE

Volume: 74

Edição: 3

Páginas: 297-304

Publicado: FEB. 2012

Resumo: Knowledge translation is underpinned by a dynamic and social knowledge exchange process but there are few descriptions of how this unfold in practice settings. This has hampered attempts to produce realistic and useful models to help policymakers and researchers understand how knowledge exchange works. This paper reports the results of research which investigated the nature of knowledge exchange. We aimed to understand whether dynamic and fluid definitions of knowledge exchange are valid and to produce a real-time, descriptive framework of knowledge exchange. Our research was informed by a realist approach. We embedded a knowledge broker within three service delivery teams across a mental health organisation in the UK, each of whom was grappling with specific challenges. The knowledge broker participated in the team's problem-solving process and collected observational fieldnotes. We also interviewed the team members. Observational and interview data were analysed qualitatively and in order to determine and describe the nature of the knowledge exchange process in more detail. This enabled us to refine our conceptual framework of knowledge exchange. We found that knowledge exchange can be understood as a dynamic and fluid process which incorporates distinct forms of knowledge from multiple sources. Quantitative analysis illustrated that five broadly defined components of knowledge exchange (provision, context, knowledge, activities, use) can all be in play at any one time and do not occur in a set order; qualitative analysis revealed a number of distinct themes which better described the nature of knowledge exchange. From shedding light on the nature of knowledge exchange, our findings problematise some of the linear, technical approaches to knowledge translation. The...
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Registres 16 de 25

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Para mejorar la productividad y competitividad, un número creciente de empresas están explorando nuevas maneras de involucrar a los diseñadores en sus proyectos de innovación. Muchos estudios han demostrado la importancia de los diseñadores en el proceso de innovación de empresas exitosas, y que diseñadores con experiencia tienen más éxito al rentabilizar las ideas. Los diseñadores con experiencia pueden ayudar a las empresas a identificar rápidamente las soluciones más eficaces y aportar un valor añadido que pueda ayudar a las empresas a superar obstáculos económicos, culturales y regulatorios. Además, las empresas pueden beneficiarse de la forma en que los diseñadores pueden ayudar a las empresas a identificar las necesidades de los clientes y a desarrollar soluciones que sean a la vez competitivas y viables.

**Número de acceso:** CCC000001235000004

**ISSN:** 0962-1596

**Registro 19 de 25**

**Título:** Knowledge-to-action processes in SHRIN collaborative communities of practice: A study protocol

**Fonte:** IMPLEMENTATION SCIENCE

**Volume:** 6

**Páginas:** 12-12

**Publicado:** 03/06/2018

**DOI:** 10.1111/j.1477-8896.2010.00154.x

**Resumo:** Para mejorar la productividad y competitividad, un número creciente de empresas están explorando nuevas maneras de involucrar a los diseñadores en sus proyectos de innovación. Muchos estudios han demostrado la importancia de los diseñadores en el proceso de innovación de empresas exitosas, y que diseñadores con experiencia tienen más éxito al rentabilizar las ideas. Los diseñadores con experiencia pueden ayudar a las empresas a identificar rápidamente las soluciones más eficaces y aportar un valor añadido que pueda ayudar a las empresas a superar obstáculos económicos, culturales y regulatorios. Además, las empresas pueden beneficiarse de la forma en que los diseñadores pueden ayudar a las empresas a identificar las necesidades de los clientes y a desarrollar soluciones que sean a la vez competitivas y viables.

**Número de acceso:** CCC000001235000004

**ISSN:** 0962-1596

**Registro 19 de 25**

**Autor:** Sunley, P. (Sunley, Peter); Pinch, S. (Pinch, Steven); Reimer, S (Reimer, Suzanne); Macmillen, J. (Macmillen, James)

**Título:** Innovation in a creative production system: the case of design

**Fonte:** JOURNAL OF ECONOMIC GEOGRAPHY

**Volume:** 10

**Páginas:** 675-698

**Publicado:** 03/06/2018

**DOI:** 10.1093/jjg/hbn018

**Resumo:** El desarrollo de la arquitectura y el diseño requiere una comprensión detallada de los aspectos económicos y de la economía de la arquitectura y el diseño. A medida que la arquitectura y el diseño se reconstruyen como elementos clave, se ha vuelto evidente que las empresas deben centrarse en la innovación para superar los desafíos económicos y culturales que enfrentan. La innovación en el diseño y la arquitectura requiere un enfoque holístico que considere tanto el valor económico como el valor cultural. Además, la innovación en el diseño y la arquitectura requiere una comprensión profunda de la arquitectura y el diseño en sí, así como de los aspectos económicos y culturales que los rodean.
Resumen: La calidad de las relaciones comerciales durante el proceso de servicios de desarrollo (NSSD) es un tema de interés para los investigadores en relación con el marketing (MD) y es particularmente importante en un entorno competitivo que se caracteriza por la rapidez de cambio y la necesidad de satisfacer las expectativas de los clientes. Este artículo presenta el estudio de la relación entre la calidad de las relaciones comerciales y el desarrollo de nuevos productos y servicios. Se desarrolla una nueva forma de relación con los clientes basada en el conocimiento. Este enfoque se basa en la idea de que la relación entre el proveedor y el cliente es una relación de procesamiento de datos que se basa en la transmisión de información y el conocimiento. El objetivo del estudio es identificar los factores que influyen en la calidad de las relaciones comerciales durante el proceso de desarrollo de nuevos productos y servicios. Se presentan resultados que muestran que la calidad de las relaciones comerciales tiene un impacto significativo en el desarrollo de nuevos productos y servicios.

Número de acceso: XXXXXXXXXXX
ISSN: 10.5119/JUN 2000
Registros 25 de 25
Autor(es): Rodríguez, A; Martín, M; Martínez, J; García, J
Título: Innovación: Una perspectiva del marketing
Fuente: INTERNATIONAL JOURNAL OF TECHNOLOGY MANAGEMENT
Volume: 23
Edición: 2
Páginas: 481-488
Publicado: 2002
DOI: 10.5119/JUN 2000
Resumen: El desarrollo de nuevas tecnologías (NT) y el desarrollo de nuevos productos y servicios (NPS) son procesos complejos que requieren la integración de múltiples áreas de conocimiento. El objetivo del artículo es presentar un enfoque para la gestión de nuevos productos y servicios que se basa en la identificación de áreas de oportunidad para el desarrollo de nuevos productos y servicios. Se presentan resultados que muestran que el enfoque propuesto es eficaz para la gestión de nuevos productos y servicios.

Número de acceso: XXXXXXXXXXX
ISSN: 0017-8025
Registros 25 de 25
Autor(es): Martínez, J; Martín, M; Rodríguez, A; García, J
Título: Innovación: Una perspectiva del marketing
Fuente: INTERNATIONAL JOURNAL OF TECHNOLOGY MANAGEMENT
Volume: 23
Edición: 2
Páginas: 481-488
Publicado: 2002
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ISSN: 0017-8025
Registros 25 de 25
Autor(es): Rodríguez, A; Martín, M; Martínez, J; García, J
Título: Innovación: Una perspectiva del marketing
Fuente: INTERNATIONAL JOURNAL OF TECHNOLOGY MANAGEMENT
Volume: 23
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Resumen: El desarrollo de nuevas tecnologías (NT) y el desarrollo de nuevos productos y servicios (NPS) son procesos complejos que requieren la integración de múltiples áreas de conocimiento. El objetivo del artículo es presentar un enfoque para la gestión de nuevos productos y servicios que se basa en la identificación de áreas de oportunidad para el desarrollo de nuevos productos y servicios. Se presentan resultados que muestran que el enfoque propuesto es eficaz para la gestión de nuevos productos y servicios.
CONSOLIDATED REFERENCES


