The Role of Intermediaries in Collaborative Innovation Projects

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Abstract

This paper aims at explaining how intermediaries influence collaborative innovation projects, suggesting a conceptual-theoretical framework about intermediaries’ roles and practices. The qualitative research was developed through the case study of the Orange Service Call and Reward project performed by the National Endowment for Science, Technology and the Arts (NESTA) for Orange Labs, the R&D arm of Orange telecom brand in the United Kingdom. The analyses show that the intermediaries influenced most of the critical elements of the innovation project, apart from research activities that were not applicable in the case.

1 Introduction

Innovation is complex and risky, demanding high investments and the integration of a range of activities. Even though, despite considerable new product investment, success rates are generally below 25% (Evanschitzky et al., 2012). Moreover, the growing complexity of current technological products and processes, coupled with their short life cycles, brings forth the context in which a single organization may not have all the skills needed to perform innovation activities by itself. Aiming at fulfilling gaps of knowledge and resources, the innovation process has become more open and collaborative (Chesbrough, 2003). Through cooperation between organizations, the cost of innovation becomes cheaper and the generation of new ideas, the quality and effectiveness of research and development (R&D) activities, as well as the speed of discoveries can be increased (Pittaway et al., 2004).

However, one of the challenges to the formation of networks for innovation is selecting reliable partners. This fact may explain why collaborative innovation initiatives still struggle to effectively happen in the market. Therefore, some institutions may influence the formation of relationships by acting as intermediaries in the search for partners and therefore in the establishment of inter-organizational network for innovation (Gassmann et al., 2011). Called intermediaries or brokers, they organize the formation of relationships that would not exist if there was no need for complementary knowledge and resources among organizations involved in innovation activities and no need for coordination of joint projects. This type of organization is located between the source and the seeker of knowledge and resources, not belonging to the network of organizations that perform innovation activities.

Any organization involved in innovation activities can benefit from the services provided by an intermediary with respect to collaborative innovation. As Winch and Courtney (2007, p.757) affirm, “the universities use the brokers to seek partners for their externally funded research programmes while the firms use the brokers to shape research programmes to meet the perceived needs of the industry.”

The literature on collaborative innovation has reported many fundamental activities to inter-organizational relationships promoted by a third party acting as an intermediary (Howells, 2006). Concerned primarily with the activity of selecting the right partners or managing relationships, the literature contains a few separate studies, indicating the lack of a holistic approach that covers the range of activities undertaken by the intermediary in collaborative innovation projects. If on the one hand the literature is advanced regarding the benefits of collaborative innovation, on the other hand, however, there is a gap to be answered on to the role of intermediaries in collaborative innovation projects. In order to achieve this
understanding, therefore, the general objective of the paper is to explain how intermediaries are influencing collaborative innovation projects, suggesting a conceptual-theoretical framework about intermediaries’ roles and practices.

To answer this aim, the research follows a qualitative method of case study that has started to be performed with intermediaries in the United Kingdom. After this presentation, the paper is organized as follows: first, the study defines and characterizes the concept of an intermediary of collaborative innovation. Then, the main elements of collaborative innovation are described to be used as an analytical framework for the analysis of the empirical study. Finally an ongoing case study is presented and some initial results are discussed.

2 Intermediary influencing collaborative innovation

Although collaborative innovation may facilitate the achievement of results, it presents challenges to organizations. Identifying and selecting partners, as well as coordinating joint activities take firm’s time and resources. Moreover, companies may present limitation in scope and scale of reaching possible partners. In fact, businesses often lack technical and commercial competences required when trying to attract partners (Pittaway et al., 2004, p.146).

Many companies have already established partnerships that generate effective results to reach the goal of innovating. However, relating always with the same partners may limit the possibilities of new ideas and knowledge (Noteboom, 2008). Some research has demonstrated that network closure established by strong ties between actors is less effective for innovation activities (Burt, 1992, Granovetter, 1973, Ruef, 2002). This negative effect of the networking practice is caused by the redundancy of information as a consequence of the actors’ isolation from the environment external to the network.

To help in the search for new and non-redundant sources of knowledge and therefore help in improving the effectiveness of collaborative innovation, the emergence of intermediaries has recently been increasing in the market. This type of organization with the role of brokering relationships is located between the seeker of knowledge and resources needed for innovation on one side, and the source of them on the other side. The intermediary, or broker, does not belong to the network of organizations that perform innovation activities. Such intermediaries may be university liaison departments, research councils, funding agencies or private companies (Van der Meulen and Rip, 1998).

The literature reports different types of brokers in relation to their ownership and funding method. There are intermediaries on the approach of the National System of Innovation (NSI) and intermediaries in the open innovation (OI) view. According to the NSI approach, the intermediary is a publicly funded body (Winch and Courtney, 2007) while the intermediary in the open innovation approach gets its income from brokering services performed to other organizations (Chesbrough et al., 2006). The focal point between the two lines is that the intermediary does not perform R&D; therefore it is not an active agent of innovation activities.

Gianiodis et al. (2010) analysed 43 academic papers about OI published since 2003. The typology developed by the authors shows the distinction between four innovation strategies: the company seeking a solution, the company providing the solution, the company working both ways, and the intermediary promoting the relationship between the seeker and the company with the solution to the innovation.

Different organization involved in innovation activities can benefit from the services provided by an intermediary with respect to collaboration. According to Winch and Courtney (2007, p.757), “the universities use the brokers to seek partners for their externally funded research programmes while the firms use the brokers to shape research programmes to meet
the perceived needs of the industry”. At the same time, Benassi and Di Minin (2009) argue that the main objects of transactions in technology markets are patents and licenses, as they generate direct revenue. These authors describe the role of the patent brokers, which promote the negotiation offering an acceptable option to both organizations. This approach is focused on technology transfer transaction, on outsourcing R&D services and also on negotiating intellectual property.

The mediation may also be conducted virtually (Verona, 2006). According to Hacievliyagil et al. (2007, p.780), “the networking possibilities brought about by the internet, in combination with the information storage capabilities of computer databases, lead companies to change the management of R&D”.

As seen, the intermediary performs many kinds of functions, depending on the profile of relationship or network analysed. According to Batterink et al. (2010), the intermediary coordinates the functions among partners, acting as a "maestro" of innovation activities. Each innovation project therefore demands different roles from the intermediary for the activities to result in effective innovation.

This research focuses on intermediaries in collaborative R&D projects as long as the intermediary acts as liaison between the partners involved in innovation activities, not performing them. Also, the intermediary must be an active agent and not just a channel or means through which organizations meet (according to Winch and Courtney, 2007, more conduits than channels). The next section discusses the main elements of collaborative innovation projects that may be influenced by intermediaries.

3 Main elements affecting collaborative innovation

There are several elements that influence the innovation to happen in organisations. At the same time, some aspects are known to contribute the collaboration performance of firms. Following, we analyse key elements of joint R&D projects.

3.1 Common goals

For a collaborative innovation to happen, firstly there must be shared interests among participants of a relationship. Stuart (1998) studied the formation of alliances in the semiconductor industry and found that the most valuable partnerships were among companies with similar technological focus or operating in similar markets, while effective cooperation with distant firms in these aspects proved to be difficult. In the same line, Tanriverdi and Venkatraman (2005) argue that a company learns more when an alliance partner has related knowledge and skills. Castells (1996) calls consistency when there are shared interests among components of a network.

To identify new partners with common goals, some organizations have established their own structures. Procter & Gamble, for example, has its own platform – Connect & Develop (Huston and Sakkab, 2006). The company seeks to expand its network of relationships using the resources of the internet, where it shows its needs for R&D and receives suggestions for solutions and ideas for new products, both from established partners as from any source interested in starting a relationship with the company. While these individual solutions enable the identification of partners with common goals, they can represent a high cost to the company. Moreover, an organisation’s own structure for the search and selection of partnerships presents limitations of amplitude, because the scope of a single organization may not be enough to constantly find and identify effective partners. Searching widely and deeply for external partners is curvilinearly (taking an inverted U-shape) related to performance. As Sofka and Grimpe (2010) explain, “while search efforts initially increase performance, there
is a turning point from where firms risk impeding their performance by ‘over-searching’ their environment”.

Batterink et al. (2010) refer to the intermediary’s activity of scanning the environment and selecting the players, establishing the procedures and tasks for a possible partnership as “network orchestration”. The authors emphasize three basic functions of innovation brokers: demand articulation, network composition and innovation process management. Network composition refers to “scanning, scoping, filtering and matchmaking of sources of complementary assets such as knowledge, materials and funding” (Batterink et al., 2010, p.52).

The related studies highlight the role of intermediaries in identifying potential partners from the existence of common goals, leading to the following research proposition:

**Proposition 01 (P.1):** The intermediary influences the identification of possible partners with shared goals.

### 3.2 Interaction

As a second key element of collaborative innovation, the relationship between organizations has to be initiated; they must come together to interact. This way, an important factor for joint R&D projects is the interaction or the connectedness (Castells, 1996), because the partnership for the development of an innovation goes beyond the interactions between actors in a value chain or established network of companies. Often relationships for innovation are performed among actors which were not previously connected. Hargadon and Sutton (1997, p.716) state that “ideas 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”. Also Powell (1998, p.231) puts the connectivity of the inter-organizational network as a key elements to the logic of organizing joint innovation activities.

Winch and Courtney (2007) analysed ten cases of innovation intermediaries in the construction industry. One of the two main functions that the intermediary has on collaborative innovation is the network liaison role. The second function identified by these authors will be further addressed in the element called coordination of joint innovation.

Thus, the evidence presented herein, particularly regarding to the manner in which innovative companies begin their relationship with partners, leads to the following research proposition:

**Proposition 02 (P.2):** The intermediary influences the beginning of the interaction among the organizations.

### 3.3 Resources

The theory of resource dependence states that organizations are potentially dependent on external sources of resources, including financial and physical resources as well as information (Pfeffer and Salancik, 1978). The need for these resources obtained from the environment makes organizations to be embedded in networks of interdependencies and social relationships (Granovetter, 1985). The collaboration therefore offers companies the availability of a wide range of resources almost immediately, without sacrificing flexibility, while limiting uncertainty (Arias, 1995). Any innovation project needs human, financial and material resources to be effective. And that is not limited to R&D activities. Resources must be considered as a broad definition, because small and medium enterprises or the service industry do not always perform formal R&D activities (Adams et al., 2006).

Okamuro (2007) indicates that 26% of small and medium Japanese companies obtain public subsidies for cooperative R&D. Funding is also an input addressed on the Survey of Technological Innovation (IBGE, 2010) which analyses the costs and the lack of sources of funding among the factors of economic nature that could have harmed innovative activities in
Brazilian organisations. There are three economic problems identified as major obstacles to innovation - high costs of innovation, economic risks and scarcity of funding sources - and one internal problem in the company - the lack of qualified personnel.

Also in the United Kingdom, the lack of some resources - as qualified personnel, information on markets and on technology and the availability of finance - were identified by companies as high barriers to innovation.

Cost factors (the availability and cost of finance in particular) were the most frequently ‘highly’ rated. SMEs perceive all barriers to be greater than large firms. Again, relatively few enterprises felt constrained by a lack of knowledge. (…) Enterprises engaged in innovation activity were almost 4 times as likely to perceive cost factors as barriers than businesses who did not attempt to innovate (BIS, 2012, p.14-15).

The considerations above indicate that joint R&D projects depend on resources as human, financial and facilities to be performed, taking to the following research proposition:

Proposition 03 (P.3): The intermediary influences the acquirement of necessary resources for collaborative R&D projects.

3.4 Management

According to Provan and Kenis (2008, p.231), “network effectiveness is defined as the attainment of positive network-level outcomes that could not normally be achieved by individual organizational participants acting independently”. Innovation here is an outcome, and the governance of a network of relationships can be critical to successful network-level results as the development of new products. The governance can ensure that the actors engage in collective and mutually supportive action and that conflict is addressed.

Compared to the governance of R&D activities within a single company, the management of inter-organizational arrangements for innovation faces different situations.

Some of these arrangements constitute extremely complex open systems, and some may be unstable. The managerial functions in these interorganizational networks are quite different from the authority relationship which commonly exists in hierarchies. Managers have to perform boundary-spanning roles, and learn to manage in circumstances that involve mutual dependency (Teece, 1996, p.207).

As such, the intermediary may be responsible for typical issues of innovation management in an inter-organizational context, such as conflict management and prevention of opportunistic behaviour (Hacievliyagil et al., 2007). In case of conflicts between the participants of innovation projects, the intermediary may play an important role for stabilizing the situation. To accomplish the task of being a conflict pacifier, the intermediary may use its previous experience and “lessons learned” in other projects (Batterink et al., 2010).

Pittaway et al. (2004) state that innovation network fails due to inter-firm conflict, displacement, lack of scale, external disruption and lack of infrastructure. “Networks can endure and evolve over many years. As a consequence, they go through periods of conflict between partners, and such conflicts can and do lead to the failure of the network.” (Pittaway et al., 2004, p.158) Some of these reasons can be minimized or even eliminated from the governance of the network and its activities.

Batterink et al. (2010) researched innovation networks of small and medium enterprises (SME’s) in the food agriculture industry and the role of intermediaries in the management of
these projects. The intermediaries presented three functions: the initiation of innovation, the composition of the network and coordination of the innovation process. Regarding the coordination mechanisms, the authors argue that SME’s do not have the experience and knowledge to encompass all the necessary details for the preparation of contracts. “In contrast to the SMEs, innovation brokers have ample experience with earlier innovation projects and often have explicit ideas and even templates for setting up appropriate coordination mechanisms, such as contracts” (Batterink et al., 2010, p.60).

As seen, the literature on the management of relations between organizations includes a wide variety of functions, such as the use of institutions and authority structures, resource allocation, contracts elaboration, the management and control of joint actions and the prevention of participants’ opportunistic behaviour. Consequently the following research proposition arises:

**Proposition 04 (P.4):** The intermediary influences the management of relationships among partners.

As the literature above indicates, there are several activities on the management of collaborative projects which the intermediary may influence. One specific issue of innovation projects is the distribution of results arisen from the relationship. The intermediary may influence the definition in relation to intellectual property and technology transfer as results of innovation activities.

Dodgson et al. (2006) argue that the issue of intellectual property is not well resolved in collaborative innovation projects. According to them, it is not entirely clear how it will be managed, although the use of virtual intermediaries helps in this matter. Howells (2006) also states that the issue of protecting the results of innovation is growing for intermediaries. They can provide independent advice and mentoring on protecting intellectual property and evaluation on the outcomes of innovation collaboration. Benassi and Di Minin (2009) argue that the main objects of transactions in technology markets are patents and licenses, as they generate direct revenue. These authors describe the role of the patent brokers, which promote the negotiation offering an acceptable option to both organizations.

Even being among the various management activities influenced by an intermediary, the influence on the results of a collaborative innovation project originates a specific research proposition given the rising importance of this issue:

**Proposition 05 (P.5):** The intermediary influences the definition and distribution of the results of innovation activities.

### 3.5 Research activities

Todeva (2006) identifies different moments of inter-organizational relationships for innovation besides the direct activities of development of a new product, as the basic research with no immediate practical application. She adds that “business networks for innovation are a multi-layered system with different innovation processes happening in the laboratory level, in the scientific knowledge level, at the corporate level and at the level of market adoption” (Todeva, 2006, p.191).

Knowledge is the raw material for innovation. And the discoveries arising from scientific research can be a source for further development of technology. Cohen et al. (2002, p.18) found that collaborative R&D projects with the contribution of public research (universities and government R&D labs) and informal information exchange with the same sources have much stronger correlations to project completion than to the suggestion of new projects. This result shows that research, even basic, serves to the development of new products in the industry.
Sofka and Grimpe (2010) studied the impulses from external knowledge for the development of new products driven by the market (customers and competitors) or driven by technology (universities and public research institutes). The quantitative analysis performed by the authors with more than 45 thousand firms from five European countries showed that in technologically sophisticated environments, it will be most beneficial for firms to reach out to universities and public research centres in order to access highly novel technological knowledge.

These evidences indicate that the generation of knowledge and research can be done through the process of collaborative innovation and the intermediary influences the relationship between industry and universities or science institutes, commonly regarded as sources of knowledge without immediate application generating basic research. Thus, this evidence leads to the following research proposition:

**Proposition 06 (P.6):** The intermediary influences collaborative research activities.

### 3.6 Development activities

The activities for the development of a new product also can be performed collaboratively. In terms of product development with a high degree of innovativeness, hardly a single innovator will find the needed solution available in the market. Therefore, relationships for the development of radical innovation will probably be long-term, not being just punctual relations of R&D.

Between 1985 and 1996, Nokia had been involved in 25 partnerships, 14 for the joint development of new products. Dittrich *et al.* (2007) estimate that the majority of these agreements involved the development of mobile telecommunication technology, for which the existing capabilities of organizations were used for the development or extension of existing technologies to markets already conquered. The authors show that between 1997 and 2002, Nokia increased to 48 alliances, 25 of which were related to the joint development agreements. From 2003 on, the company intensified its collaboration with competitor manufacturers such as Ericsson and Siemens.

Either for introducing basic technology or for creating commercial products, the intermediation is important on linkages of university and industry and inter-firm (Kodama, 2008). Also interactions with a firm’s main customers and obtaining customers through the main customers’ networks have a positive association with new product development (Brass *et al.*, 2004). Product innovation is also increased when the organizational unit is more central in an interunit resource exchange network (Tsai and Ghoshal, 1998).

As seen, the presented literature indicates that collaborative innovation to be successful depends on joint activities for product and process developments. Thus the following research proposition arises:

**Proposition 07 (P.7):** The intermediary influences collaborative development activities.

The theoretical and conceptual issues addressed in the previous section allowed a better understanding about the role of intermediaries in the dynamics of collaborative innovation. During the literature review, some evidence concerning critical factors to joint innovation projects stood up. Figure 1 summarizes the sub-items that form the group of key elements of collaborative innovation which can be influenced by intermediaries, showing also the references about them and the research propositions arising from them.

Recognizing that key elements for innovation are systemic and non-sequential in nature, a conceptual framework derived from the approaches of process of innovation and project management guides this research (Cooper and Kleinschmidt, 1986, Lientz and Rea, 2001). The seven research propositions are illustrated according to their connections. Figure 2 shows
the flow of activities in an innovation project that can be performed or influenced by an intermediary.

<table>
<thead>
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<th>Critical actions of the intermediary</th>
<th>Sub-items</th>
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<th>Research propositions</th>
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<tr>
<td>To identify common goals</td>
<td>- broker may have a structure to identify partners with common goals;</td>
<td>Huston and Sakkab (2006)</td>
<td>P.1: The intermediary helps the identification of possible partners with shared goals.</td>
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<td></td>
<td>- search among companies in similar markets;</td>
<td>Sofka and Grimpe (2010)</td>
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<td>- search among companies with complementary knowledge and skills.</td>
<td>Castells (1999)</td>
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<td></td>
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<td>Tanriverdi and Venkatraman (2005)</td>
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<td>Batterink et al. (2010)</td>
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<td>To foster interaction</td>
<td>- Interactions in the value chain;</td>
<td>Castells (1996)</td>
<td>P.2: The intermediary influences the beginning of the interaction among the organizations.</td>
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<td></td>
<td>- Interactions with new partners, who were not connected before;</td>
<td>Hargadon and Sutton (1997)</td>
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<td></td>
<td>- The flow of interaction may be initiated by the organization that needs</td>
<td>Powell (1998)</td>
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<td></td>
<td>a technology and/or knowledge or by the organization that has a technology and/or knowledge but that does not develop a marketable product.</td>
<td>Winch and Courtney (2007)</td>
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<td>To help in obtaining resources</td>
<td>- Human resources for innovation, either for R&amp;D or to coordinate activities or for other related tasks;</td>
<td>Pfeffer and Salancik (1978)</td>
<td>P.3: The intermediary helps in obtaining the necessary resources for collaborative R&amp;D projects.</td>
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<td>- Financial resources for innovation, both public financing and the companies’ own;</td>
<td>Granovetter (1985)</td>
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<td></td>
<td>- Equipment and infrastructure for activities.</td>
<td>Adams et al. (2006)</td>
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<td></td>
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<td>Okamuro (2007)</td>
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<td>Pintec (IBGE, 2010)</td>
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<td></td>
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<td>BIS (2012)</td>
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<td>To help the management of the project</td>
<td>- Drafting contracts;</td>
<td>Provan and Kenis (2008)</td>
<td>P.4: The intermediary helps the management of activities among partners.</td>
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<td></td>
<td>- Establishment of rules for participation;</td>
<td>Pittaway et al. (2004)</td>
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<td></td>
<td>- Acquisition and use of resources;</td>
<td>Teece (1996)</td>
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<td>- Definition of partners’ tasks and involvement in collective action;</td>
<td>Hacievlyagil et al. (2007)</td>
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<td>- Suggestion and validation of technical standards;</td>
<td>Batterink et al. (2010)</td>
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<td>- Conflict resolution;</td>
<td>Winch and Courtney (2007)</td>
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<td>- Prevention of opportunism.</td>
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<td>To help decisions about results</td>
<td>- Definition about the intellectual property;</td>
<td>Dodgegon et al. (2006)</td>
<td>P.5: The intermediary helps the definition and distribution of the results of activities.</td>
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<td>- Distribution of the commercial (financial) results of the project.</td>
<td>Howells (2006)</td>
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<td>To help research activities</td>
<td>- Knowledge generation;</td>
<td>Cohen et al. (2002)</td>
<td>P.6: The intermediary helps collaborative research activities.</td>
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<td>- Scientific research without immediate practical application.</td>
<td>Grimpe and Sofka (2010)</td>
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<td>Todeva (2006)</td>
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<td>To help development activities</td>
<td>- Technology development for new products;</td>
<td>Dittrich and Duysters (2007)</td>
<td>P.7: The intermediary helps collaborative development activities.</td>
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<td>Brass et al. (2004)</td>
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Figure 1 - Summary of critical elements, their sub-items, authors and research propositions

Firstly, there are two groups of critical elements to innovation which have to be performed in order to plan and design a collaborative innovation project: the establishment of partnerships beginning with the search for partners with common goals and the acquisition or resources. The intermediary may influence one of these two critical elements of collaborative
innovation projects or both. When the project is planned and designed, the next step is executing the collaborative research and/or development activities.

So the second set of elements on the collaborative innovation process is R&D. According to the innovation being sought, some projects may include only research activities, if they are about science discoveries, for instance. Some other projects may include only development activities. The intermediary may influence one of these two elements of joint innovation projects or both. If collaborative R&D activities do not reach the expected results, the intermediary may have to return to Planning and Design stage to perform the first set of critical elements in a different way.

The stage of Executing the project finishes when R&D reaches a result. It may be considered an invention or an innovation, according to its adoption in the marketplace. If the project was about basic research and discoveries from science, the result may not be taken to the marketplace and therefore the result may be considered an invention.

Along with the previous mentioned elements for collaborative innovation to reach a result is the management of the project. The activities of monitoring and controlling go through all activities since the beginning of the project to its completion. According to the innovation project, intermediaries may start providing services in different points, not necessarily in the beginning of the process. Additionally, there may be more than one intermediary in each project. Different agents can help companies at different stages throughout the project.

**Figure 2 - Research Conceptual Framework**

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The theoretical framework presented at Figure 2 is a partial result from the thesis. Although the identification of constructs and connections among them is useful, one should recognize it is just an attempt to define what will be identified in field research.

4 Research method

As Eisenhardt (1989) stated, the specification a priori of a construct does not guarantee a place in the resulting theory. Therefore, the elements influenced by an intermediary presented in the framework need an empirical validation in the context of collaborative innovation projects. The collection of data for the in-depth case studies has recently started.

The selection of the case study is regarded as a crucial element in the case study method (Eisenhardt, 1989, Yin, 2009). Our first selection criterion was that the intermediary had experience in acting as a broker in collaborative innovation projects, not performing R&D activities. The National Endowment for Science, Technology and the Arts (NESTA) is the United Kingdom’s foundation for innovation. Its stated aim is to help innovators overcome barriers by mobilising research, networks and skills and providing investments and grants. Their Corporate Connect programme had worked with large firms from 2006 to 2010, investigating how the complex and sometimes difficult relationships between organizations could be enhanced. The project involved experiences of different kinds of innovation, as product innovation at fast-moving consumer goods’ companies, service providers and process innovation at manufacturing firms. The case selected for this paper was the Orange Service Call and Reward (OSCR) project performed with the intermediation of NESTA for Orange Labs, a division of France Telecom’s R&D structure.

In order to empirically test the propositions, data was collect from both the innovation intermediary and the client firm through interviews and documents. The Head of Open Innovation at Orange at the time of the project (respondent A) and the Director of Open Innovation at NESTA at that time (respondent B) were interviewed face-to-face in London and via Skype in 2013. All interviews were recorded and fully transcribed. After that, further information was exchanged by email. Also, documents were used as source of information: the brief of the competition developed by the company Orange detailed which kind of innovation that the company was interested in co-developing and was sent to around 500 SME’s; the video from the launch event with speeches of Orange’s representatives from many departments, as well as of the three intermediaries involved in the project; the report from NESTA about its Corporate Connect programme describing the practices as well as the projects developed and their results; two videos with speeches about the OSCR case by respondent A; news from Orange’s website and the case study from 100% Open website.

5 Case study

NESTA is the United Kingdom’s foundation for innovation. Its stated aim is to help innovators overcome barriers by mobilising research, networks and skills and by providing investments and grants. In 2006, the emerging practice of open innovation (OI) led NESTA to launch the programme Corporate Connect to investigate how relationships of businesses can be enhanced. It involved different kinds of innovation, as product innovation at fast-moving consumer goods’ companies, service providers and process innovation at manufacturing firms.

Orange Service Call and Reward (OSCR) was a Corporate Connect’s competition that joined the telecom company Orange, the service design innovation consultancy LiveWork and Wireless Innovation, an SME’s incubator. Orange and NESTA funded the project investing £50,000 (fifty thousand British Pounds) each. Before the competition, respondent A together
with Orange’s business units defined what they needed. NESTA helped Orange to write the brief to release it for the applicants.

The project was launched in October 2009 targeting small companies that could propose innovative services and business models that would create revenues worth €20 million over three years, which would grow audience share and increase customer loyalty. The competition provided a summary brief describing the type of technology innovation that Orange was interested in gaining. According to the company’s former Head of OI,

> The two pages brief summarized generally the audience and advertising area. It gave five categories of service innovation and the maturity of innovation. It had to be something that differentiated Orange against its competitors. It had to be a pilot or in testing because we wanted something that we could convert into a market opportunity quite quickly, not a technological innovation that would take years to design, test and integrate in our infrastructure. We wanted something that didn’t need deep integration in our network (respondent A).

The call to participate was sent to over 500 SME’s from NESTA’s network plus the media and Orange’s network. Also, a launch event was held at NESTA’s headquarter when more than a hundred potential applicants attended in person. Companies interested in submitting ideas could meet with representatives from Orange to further understand the company’s needs. The partners presented the competition and introduced the jury who would choose the winner. The jury was formed by Orange UK’s senior representatives, the key decision makers, as the Head of Product Marketing and the Head of Content Operations.

Although NESTA was the organisation responsible for coordinating the whole project and dealing with all of the applicants, LiveWork and Wireless Innovation were also intermediaries (called “trusted agents” in the project). According to the former Director of Open Innovation at NESTA,

> LiveWork represented Orange in the Airlock and Wireless Innovation represented the small companies in the Airlock. The team brought a business consultant in, because one of the criteria of the competition was to demonstrate a 20 million euro service innovation. So the business consultant provided a financial module which projected a 20 million euro revenue market according to the service proposed (respondent B).

The former executive of Orange tells that the competition required the company’s own intermediaries to be part of the process, because “as well as NESTA was doing a great job, in testing innovation modules, they didn’t know about the company as much as we needed them to. That’s why we had the trusted agents: those that represented the applicants and that represented us (respondent A)”. LiveWork had worked with Orange for 10 years and, according to respondent A, it was the key trusted agent because they knew the company, they understood the brand and they had developed services for Orange before. Their role was to help the applicants in the Airlock to build a visual business case that was customized to Orange’s target audience. Wireless Innovation has also worked with Orange for some years. It had experience of incubating SME’s in Scotland. Orange’s former executive says that “they were brought in on a consultancy basis for their specialist expertise on couching, mentoring and getting a feel of which innovations were going to be successful because they had incubated over 250 companies through their centre (respondent A)”.

The competition received 85 proposals of service innovation. According to NESTA’s former OI Director, “the biggest challenge to narrow the applicants and choose the ones to go
into the Airlock was finding the right attitude meaning that they had to be open to doing business with Orange and realising the real incentive was the scale that partnering with Orange could bring” (respondent B). The Airlock was the stage of the project where a few chosen companies received funds, support and advice from the intermediaries about how to develop, protect and present their proposals to Orange on the jury day. Seven applicants were selected by the intermediaries to share £100K to improve and adapt their proposals according to Orange’s needs. All technical information provided by the candidates to the intermediaries was held under a confidentiality agreement within the Airlock and was not disclosed to Orange. Therefore, the applicants were free to reveal full details of their innovation, including yet to be protected IP.

NESTA’s former OI Director explains the Airlock:

In the Airlock, we develop the propositions and protect them. We need to make sure that they are addressing the needs of our client before they finally present it to our client. Then we help facilitate a deal if indeed the client decides they want to go ahead. So the client only has to sign one contract with us rather than tens or hundreds of contracts with potential external parties (respondent B).

There were three or four meetings over eight weeks, either at NESTA’s office or at the applicant’s own locations. This refining process was completed in February 2010, when the ideas were pitched to Orange. NESTA planned the presentation day. Five companies from the Airlock presented their proposals for the jury, who then had 90 days to decide which ideas to pursue further. The intermediaries decided that two companies from the Airlock were not ready to present on jury event. As the former Head of OI at Orange comments,

When the two were ready, NESTA facilitated a meeting so that they could present but not to the final jury. Just to me. They were good but very early ideas. Also there were other elements, like quality and commitment, because didn’t finish in time for the pitch (respondent A).

After the jury day, NESTA facilitated follow-up meetings between Orange and the seven companies. The winner was a service called Last Second Tickets, specialised in unsold tickets. Craig Massey, the owner of the winning proposal, had tested the platform and the business model with 85 pilots. He had relationships with big ticket resellers in the UK. However, he did not have a signed client.

Orange’s former Head of OI comments on the way that the winner got to know about the competition:

The most amazing thing was that we spent a lot of effort in marketing this in the UK through innovation clusters. But Craig didn’t receive the emails and he wasn’t at the launch event. A friend of the Chief Technology Officer (CTO) of Last Second Ticket put the competition on his Twitter. It was retweeted and then the CTO picked it up at the retweet (respondent A).

The intellectual property of those ideas that Orange rejected remained with the applicant, who were then free to negotiate them to other companies. From the insights and discoveries resulting from the programme, NESTA created new methods for OI aiming at helping corporates co-create with suppliers, consumers or customers to produce investable propositions and launch them successfully to the market. In 2010, when Corporate Connect
programme had reached its results, two of NESTA’s employees (Respondent B and a colleague) spun-out and launched an independent company called 100%Open.

6 Discussion and conclusion

The roles of intermediaries at OSCR case were reviewed according to the proposed research framework about innovation projects. To conduct the analysis, the discussion of critical elements of collaborative innovation projects influenced by an intermediary was based on the items mentioned at the literature about each of the elements. Figure 3 summarizes the activities and roles played by the intermediaries at OSCR case, relating them to the critical elements of collaborative innovation projects.

<table>
<thead>
<tr>
<th>Critical elements</th>
<th>Intermediaries’ activities at OSCR case</th>
</tr>
</thead>
<tbody>
<tr>
<td>Common goals</td>
<td>NESTA had the network of SME’s, start-ups and incubated hubs in the UK with 500 possible applicants. The intermediaries were responsible for short-list the submitted proposals.</td>
</tr>
<tr>
<td>Interaction</td>
<td>There was an event organized by NESTA with the attendance of around 100 potential future partners not previously selected. Most of them were from NESTA’s network. Orange’s innovation people were introduced to around 10 possible partners chosen by NESTA. Some had a fast track after applying and the others were in the Airlock. The flow of NESTA’s activity was initiated by both: the organization that wanted a solution and the intermediary itself that wanted to test open service innovation.</td>
</tr>
<tr>
<td>Resources</td>
<td>The intermediaries at OSCR hired a market consultancy to help the applicant in the Airlock. NESTA had a role in funding part of the project. Also some meetings happened at NESTA’s office in London.</td>
</tr>
<tr>
<td>Management</td>
<td>The design and coordination of the entire project was done by NESTA. It was responsible for not letting Orange know who the applicants were, keeping the confidentiality as agreed on the contract. NESTA was also responsible for signing contracts with the applicants and Orange, centralizing the control of the project.</td>
</tr>
<tr>
<td>Result</td>
<td>The business relationship between Orange and the winner did not have the influence of any intermediary. The intermediaries had a minor role regarding intellectual property. As the project was about services innovation, the applicants had a mixture of ways to protect their developments. The intermediaries were responsible for hiring IP advice from an independent advisor (a lawyer).</td>
</tr>
<tr>
<td>Research activities</td>
<td>Not applicable in this case.</td>
</tr>
<tr>
<td>Development activities</td>
<td>The intermediaries helped the applicants in the Airlock to adapt their business cases and developments according to Orange’s needs.</td>
</tr>
</tbody>
</table>

Figure 3 - Intermediaries’ roles in each element of collaborative innovation project

As it can be seen at Table 2, most critical elements of collaborative innovation project had the influence of intermediaries. However any analysis would be too weak to be sustained as a conclusion of the research coming from only this case study. Therefore we cannot identify the main contribution of the study yet. Even though, the OSCR case allows some conclusions about intermediaries’ roles concerning the critical elements.

From the seven research propositions, the intermediary played the smallest role on the results of the project (P.7). The importance of NESTA’s role on searching for partners (P.1) may be questioned, considering that the organisation advertised the competition to around 500 SME’s and start-ups, but the winner was not from its network. Also, there is not a measure of the effectiveness of the intermediary regarding its network of SME’s, because there is not a registration of how many applicants were from NESTA’s network and how many applicants did not receive the advertisement from NESTA. Still about P.1, another deviating result from the project was that the winner did not fit in any of the categories advertised at the brief.
Maybe other potential winners would have applied if the brief was different or wider. As the intermediaries were responsible for short-listing the applicants to go into the Airlock, it raises some questions. What was the selection of proposals based on if not on the brief? How would have the selection been if the other two intermediaries (that knew Orange better) were not part of the project? When analysing the identification of common goals shared by the applicants with the client (in this case, Orange), the fact that the intermediary is an external organization not related to the client may reduce the intermediary’s role. At OSCR case, Orange solved this gap by bringing other two intermediaries, which were related to the company before.

Regarding the beginning of the interaction between organizations (P.2), it was not found in the previous literature and it may be considered as a finding from this case study the fact that the flow interaction was initiated not only by the client, but also by the intermediary (NESTA). P.3 (acquisition of resources) was confirmed due to the fact that the intermediaries helped the applicants with financial resources for the developments, human resources in consulting and infrastructure for meetings.

P.4 (management of the project) was also confirmed by the case because NESTA was responsible for designing the whole project and managing the contracts with the applicants. Also it made sure that the confidentiality, agreed on the contract, about the ideas was maintained throughout the process, protecting the applicants against any potential opportunism. The proposition about research activities (P.5) could not be analysed for not being included in this case.

The OSCR project showed that the intermediaries had a stronger role in helping the applicants turn their development activities into a commercially appealing service; and a smaller role on helping them to develop or pilot their proposals (P.6). Finally, although the initial objective of this case study was to analyse the role of NESTA at the OSCR innovation project, throughout the research it became evident that the other two intermediaries also played fundamental roles.

As seen, the study highlighted some relevant issues for the research in progress. To conclude, despite of the fact that the empirical results of this paper present limitation of generalization, they support the main thesis of the research that states that intermediaries influence the critical elements of innovation projects. However, for a solid verification of the thesis, the authors are deepening their researches at OSCR case and at other innovation projects having the influence of intermediaries in different contexts.

References


