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Business Models and Institutional Complexity: Understanding Value Creation in Healthcare Sector Public-Private Partnerships

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Abstract

Public-Private Partnerships (PPPs), as novel hybrid organizations, combine different institutional logics to generate innovative solutions to complex problems. Their growth and survival depends largely on the creation of value for stakeholders and society. Using data from a comparative case study of two PPPs in the healthcare sector, we focus on the fact that the business model design is a means through which the successful or unsuccessful management of institutional complexity can occur inside hybrid organizations, with a subsequent generation or destruction of value. We are able to link the literature on institutional complexity and hybrid organizations with the one on business models, by looking at the organizational mechanisms and processes that are implemented in the definition of partnership governance, content and structure. We provide a process model of the way the business model design can help to bridge different logics and finally create value for stakeholders.

Keywords: Business model design; Healthcare; Hybrid organizations; Institutional logics; PPPs.
JEL codes: M10; L32

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Introduction

With the recent global financial crisis, many countries are struggling with a shortage of public funds. This new reality has resulted in the establishment of new cooperative networks, and the development of new organizational forms aiming at providing a framework for inter-organizational collaborations (Cravens et al., 1996). In particular, governments have been pushed to rely more and more on private sector's capacities through Public-Private Partnerships (PPPs), with the aim of accessing appropriate resources and capabilities and, in turn, introducing innovation and improving the value received from taxpayer's money. These inter-organizational project-based organizations involve collaborators from the public and the private sectors and are "long-term collaborative relationships between one or more private actors and public bodies that combine public sector management or oversight with private partners' resources and competencies for the direct provision of a public good or service" (Kivleniece & Quelin, 2012, p. 273). This definition clearly delineates key features of PPPs including voluntarily shared resources and competences and public goods as the output of the collaboration (Mahoney et al., 2009).

A burgeoning literature has investigated PPPs. While this literature is fragmented across several research streams, including organizational economics, public administration, and project management (Hodge & Greve, 2007), the focus has mainly been on economic issues such as the modelling of how asymmetric information and contract incompleteness affect the performance of public investments under PPPs versus traditional procurement schemes. But, as these new organizational forms represent a discontinuity in the world of organizations (Rao et al., 2000), their management and survival are essentially based on a trial-and-error process as we do not clearly understand what drives their success.

The legal and organizational complexity of public-private partnerships – derived from the interaction of organizations that are carriers of diverse institutional logics, such as public administration, financial institutions, construction companies, facility managers, consultancies, etc. – represent the key characteristic of PPPs. This characteristic may negatively affect the potential for collaborative advantage of these forms. Indeed, the diverse resources brought into collaborations are a function of institutional and organizational differences. However, such differences generate tensions and confusion in the hybrid organization (Huxham & Beech, 2003; Rao et al., 2000). From this perspective, the organizational and strategic dimensions around partnerships that span different sectors are both inherently complex and fundamental for a successful outcome in PPPs (Saz-Carranza & Longo, 2012).

Although new organizational forms have historically been a major theme of organization theory, they have received comparatively little attention from institutional researchers (Tracey et al., 2011). In particular, while we have a limited understanding of the processes leading to the creation of new organizational forms (see Greenwood & Suddaby, 2006; Rao et al., 2000; Suddaby & Greenwood, 2005; Tracey et al., 2011), we still lack a deep understanding of the mechanisms that support functioning, avoid inefficiencies and ensure survival following establishment. In particular, we know little about the internal processes that allow them to create value for stakeholders and society as a whole, and under which conditions this happens. Thus, in new hybrid organizational forms, the business model design becomes extremely important to understand the key elements underlying cooperation, partnership, and joint value creation (Zott et al., 2011; Magretta, 2002; Makinen & Seppanen, 2007; Mansfield & Fourie, 2004) in combining organizational structure and an organizational strategy (Ingram, 1996).

Thus, by combining an institutional and organizational approach with the literature on business models, we conducted a multiple comparative case study of two PPPs, one successful and one unsuccessful, in the healthcare sector in Italy to answer the following research questions: *What makes these novel hybrid organizational forms value-creating? Under what conditions is business model design able to deliver public benefits as opposed to additional costs or welfare losses to both private actors and society as a whole?*

Our paper contributes in several ways to the management research. First, we contribute to the literature on institutional complexity and new organizational forms by linking these streams of research with the growing literature on business models. We provide empirical evidence on the way different logics interact to sustain the functioning of new organizations, by looking inside them at their characteristics and the processes set up for them to function. Based on our research, we show that the design of the business model – i.e., the way activities are managed, defined and structured – makes a huge difference in hybrid organizations' capability to deal with multiple constituencies. In particular, we focus on the fact that the business model design is a means through which the successful or unsuccessful management of institutional complexity can occur inside hybrid organizations, with a subsequent generation of value or additional costs for society as a whole.

Second, we contribute to the literature on business model design by highlighting the role that business model design plays in these new forms of organization. While a considerable amount of literature has dealt with better definitions of general aspects and descriptors of the business model concept and has build a link between the concept of business model and concept of value creation (Zott & Amit, 2010; Baden-Fuller & Morgan, 2010; Zott et al., 2011; Chesbrough & Rosenbloom, 2002), little has been written about which elements can contribute to design a successful or unsuccessful business model for creating value in new organizations. In this study, we focus in particular on the way two different organizations give meaning to the activities they carry on, manage and organize them, adding important insight into the organizational mechanisms and processes that enable one of them to deliver value and the other to produce additional costs and inefficiencies for stakeholders and society.

Finally, our findings add to discussion of PPPs by showing that, in addition to the familiar topics in the existing economic and contract theory literature like principal-agent relationship, adverse selection, hidden information, information externalities (Iossa & Martimort, 2015), a management and institutional perspective can help us to better understand the organizational side of the relationships linking the government with a private consortium of firms. And also, we contribute to existing literature by providing evidence of a successful and unsuccessful case in PPP.

Theoretical background

Institutional complexity and novel hybrid organizations

The fast development of hybrid organizational forms has been considered as an effort to react to and manage environmental uncertainty and episodic change (Minkoff, 2002). Hybrid organizations have been seen as an appropriate response to pluralistic institutional environments, where complementary expertise is increasingly required. Indeed, hybrid organizations have a potential advantage to react to economic scenarios that ask for "ad hoc" problem solving (Mintzberg, 1979) according to their ability to merge together distinctive capabilities and different resources. But, in order to do that, they also have to face the complex problems of institutional complexity that occur when parties from different organizational fields, characterized by different logics collaborate.

Different definitions of hybrid organizations have been suggested in the existing literature, some of them focusing more on the idea of resources sharing (Powell, 1987; Borys & Jamison, 1989), some others focusing, instead, on the idea of different services orientation and clientele combination (D'Aunno, 1991), and still others on the potential tensions and conflict that can arise from the mixture of different logics in the same organizational arrangement (Jay, 2013; Pache & Santos, 2013; Battilana & Dorado, 2010). Whatever the focus, however, all the definitions recognize that hybrid organizations respond to the inability of one of the partners to solve an important problem (Borys & Jamison, 1989). Indeed, drawing upon the capabilities of multiple and diverse organizations, hybrid organizations should increase efficiency and flexibility (Powell, 1987) via offering a solution to one of the following problems: resource scarcity, lack of economies of scale, risk distribution across several partners, and operational inefficiency (Borys & Jamison, 1989). Therefore, each partner joining the collaboration fills a gap in skills, resources and/or competencies of the other partners (Cravens et al., 2000).

Hybrid organizations can take different forms. Among others, public-private partnerships represent an important one (Pache & Santos, 2013; Jay, 2013). Since hybrids are characterized by the presence of different institutional logics under the same organizational roof (Battilana & Dorado, 2010; Pache & Santos, 2013), to be sustainable, they need to balance diverse degrees of awareness they incorporate. So, for example, biotechnology companies have to combine market with academic science logics (Murray, 2010); microfinance organizations need to manage the coexistence of a market logic with a charity logic to deal with poverty alleviation (Battilana & Dorado, 2010; Powell & Sandholtz, 2012); and medical schools have to deal effectively with health care and academic logics in their daily activities (Dunn & Jones, 2010).

A core characteristic of hybrid organizational forms is that the institutional logics they incorporate are usually incompatible (Greenwood et al., 2011). Even though some scholars have emphasized the innovative potential of putting together different practices and logics (Chen & O'Mahony, 2006; Murray, 2010; O'Mahony & Bechky, 2008; Reay & Hinings, 2009), there are also unexpected and challenging consequences of the institutional complexity created through this sort of partnership (Jay, 2013; Greenwood et al., 2011). In fact, the different resources that partners bring into collaboration are a function of the institutional differences characterizing them. And these differences might result in a great opportunity as well as in a strong constraint. This poses acute challenges on how to combine together the different practices, objectives, approaches of the multiple partners involved in hybrid organizations, since clear boundaries and identities are not easily nor immediately recognizable (Schreyogg & Sydow, 2010). This growing scholarly interest in organizational hybridity and institutional complexity has produced an increasing interest in better understanding antecedent conditions (Greenwood et al., 2011), diffusion ad adaptation of particular organizational forms (Tracey et al., 2011) and organizational responses to complexity (Besharov & Smith, 2013; Jay, 2013; Greenwood et al., 2011; Battilana & Dorado, 2010; Kraatz & Block, 2008).

Whereas the management of multiple institutional logics is challenging in experienced hybrids because it is likely to produce internal tensions (Battilana & Dorado, 2010; Glynn, 2000), it becomes even more difficult in *new* hybrid organizations that cannot rely on an existing model nor on available organizational recipes for handling the tension between the logics they combine (Battilana & Dorado, 2010; Scott & Meyer, 1991). In particular, we lack an understanding of the actual potential that hybrid organizations have in terms of value creation. The way in which hybrids are able to create value for their stakeholders, despite the different and often diverging pressures they are subject to, is still not well understood (Mahoney et al., 2009; Kivleniece & Quelin, 2012).

PPPs as new hybrid organizational forms

Public-private partnerships have been defined in multiple ways in economic and management literatures, according to the focus being posed on public or private domains. Boivard (2004, p. 199), for example, defined them as “a set of working arrangements based on a mutual commitment […] between a public sector organization with any organization outside of the public sector" (see also Selsky & Parker, 2005). Again, Engel, Fischer and Galetovic (2014) defined PPPs as "an agreement by which the government contracts a private company to build or improve infrastructure works and to subsequently maintain and operate them for an extended period of time (for example, 30 years) in exchange for a stream of revenues […]". OECD has similarly defined PPPs as "long-term contractual agreements between the government and a private partner whereby the latter typically finances and delivers public services using a capital asset (e.g. transport or energy infrastructure, hospitals or school buildings)" (OECD, 2013, p. 96). Here we purposely adopt the relatively broad definition given by Kivleniece and Quelin (2012) as "long-term collaborative relationships between one or more private actors and public bodies that combine public sector management or oversight with a private partner's resources and competencies for a direct provision of a public good or service" (p. 273). The definition we have adopted allows us to specify that public-private partnerships are essentially constructed around voluntarily collaborative structures, shared competences and resources, and public goods provision as key characteristics. This means that a broad variety of arrangements can be empirically observed, diverging from classical forms for infrastructure and service delivery in sectors such as transportation (Estache et al., 2007), prisons (Cabral et al., 2010), and water distribution (Chong et al., 2006), to more innovative and knowledge-intensive partnerships in sectors such as energy (Dinica, 2008), health care (Rangan et al., 2006), and defence (Baum & McGahan, 2009). In this sense, given the number of diverse actors linked by different kinds of relationships aimed at sharing goods and services for a common objective, these new ways of organizing business can be conceived as new hybrid organizational forms (Kivleniece & Quelin, 2012).

We know that the interplay between public and private interests has a long history. But, its "salience, scale, and frequency" (Mahoney et al., 2009, p. 1038) and the complexity underlying the protection of public interest through the involvement of private organizations in public services provisions, has increased a lot the attention being paid to this phenomenon. Public-private partnerships, as pretty novel hybrid organizations, have to combine different institutional logics in their efforts to generate innovative solutions to complex problems. They incorporate elements from state, market, and civil society (Jay, 2012; Saz-Carranza & Longo, 2012), and they cannot rely on any "ready-to-wear" model (Battilana & Dorado, 2010). This institutional complexity they have to cope with can lead to unintended consequences, which may prevent the achievement of specific goals and the creation of value if not managed appropriately (Jay, 2012).

Large empirical evidence shows that PPPs' failure is more likely than success. However, successful cases are growing more frequent, thanks in large part to the greater experience of partners involved, but failure still remains a common outcome (Engel et al., 2014). Even though this is the case, broader organizational and managerial dilemmas inherent in such collaboration have been bypassed by existing research (Kivleniece & Quelin, 2012; Selsky & Parker, 2005). The focus has mainly been on pure economic issues such as the modelling of asymmetric information and exploration of how contract incompleteness affect the performance of public investments under PPPs versus traditional procurement schemes.

New hybrid organizational forms and business model implementation

In the organization literature there has been a long debate about the way new organizational forms arise and become established in organizational communities (Romanelli, 1991; Tracey et al., 2011). Economic, political, and social turbulence have all been recognized as important preconditions for innovation in organizational forms (Romanelli, 1991; Minkoff, 2002). In extremely dynamic environments – where repeated discontinuities often undermine existing organizational competencies and the way business activities are performed – it becomes of exceptional importance to redefine alternative models of organizing that are able to better respond to the new requirements imposed by institutional changes. We have some understanding from previous literature about the emergence of new organizational forms, such as in the case of Maguire et al. (2004) where institutional entrepreneurs who do not occupy dominant positions established the Canadian Treatment Advocates Council (CTAC) through a combination of particular skills and power; or in the case of Tracey and colleagues' (2011) paper, where the authors report the emergence of Aspire through institutional work done by two institutional entrepreneurs in combining charitable activities with of non-profit homeless support organizations with for-profit retail activities; or as in Suddaby and Greenwood's work (2006), where the authors address the establishment of new organizational forms in North America. New hybrid organizational forms can also be public-private partnerships that use resources and/or governance structures from more than one existing organizations (Borys & Jemison, 1989).

However, since the last decade has been characterized by important changes in the economic, political and resource environment that have rapidly and definitely transformed the available "organizational repertoires" (Minkoff, 2002), it becomes very important to better understand not only the emergence of new organizational forms, but also, and even more, how they diffuse and become settled and legitimated. Indeed, the new economic environment "has provided firms with the potential to experiment with novel forms of value creation mechanisms, which are networked in the sense that value is created in concert by a firm and a plethora of partners, for multiple users" (Zott et al., 2011, p. 1029).

But what has received little attention and exploration is the fact that the survival and growth of organizational forms depends largely on the creation of value that they are able to generate for stakeholders and society as a whole (Kivleniece & Quelin, 2012). Seelos and Mair, for example, have studied value creation mechanisms in deep poverty contexts and have defined a business model as a "set of capabilities that is configured to enable value creation consistent with either economic or social strategic objectives" (2007, p. 53). Similarly, Thompson and MacMillan (2010) proposed a framework for developing new business models that may create value in terms of societal wealth improvements, such as poverty reduction. Thus, business model design becomes of extreme importance especially for those organizations that approach the business world taking advantage of a new way of organizing and combining resources and competences. We have an illuminating example in the paper by Tracey and colleagues (2011), where Aspire's loss of money and failure has been attributed to problems associated to business model development. According to business model design and subsequent implementation organizations will be able to create or destroy value (Tracey et al., 2011).

An important topic, then, that has remained largely unconsidered in current research is the link between business models and new hybrid organizational form (Keen & Qureshi, 2006). Since hybrid organizational forms need to combine an organizational structure and an organizational strategy (Ingram, 1996) according to the different interests embodied by the diverse actors, understanding the key elements underlying cooperation, partnership, and joint value creation gains extreme prominence (Zott et al., 2011; Magretta, 2002; Makinen & Seppanen, 2007; Mansfield & Fourie, 2004). Since business model has been defined as a "set of capabilities that is configured to enable value creation consistent with either economic or social strategic objectives" (Seelos & Mair, 2007, p. 53), it is the definition and implementation of a successful business model that allows new hybrid organizations to define the relations of power inside the organization, the allocation of resources and tasks, the definition of objectives, etc. Here we formally define the business model as a system of interdependent activities that, by depicting the content, structure, and governance, enables the firm, in concert with its partners, to create value through the exploitation of business opportunities (Amit & Zott, 2001; Zott & Amit, 2010). Thus, in the case of new hybrid organizational form based on the conceptualization and adoption of new ways of conducting economic exchanges, the understanding of how their hybrid nature is preserved in their strategy of connecting previously unconnected parties, designing new transaction mechanisms, and linking participants in new ways (Zott & Amit, 2007) is essential. Because, as with recipes, business models require a variety of ingredients, represented by the diverse strategic elements (i.e., resources, capabilities, technologies, governance, etc.), they cannot just be defined as a set of elements, since the way these elements are arranged makes a firm successful or not (Baden-Fuller & Morgan, 2010). The integration of the business model elements is expected to produce a particular kind of outcome, since "not all cooks can make all recipes work" (Baden-Fuller & Morgan, 2010, p. 167).

Thus, a deeper effort may be required to understand the exact value creation mechanisms in hybrid organizations, again, considering that alternative choices of organizing and managing can be developed among the different sectors involved (Kivleniece & Quelin, 2012; Selsky & Parker, 2005). In this way, analysing the concept of business model becomes fundamental to explain value creation in novel organizational forms characterized by the involvement of different parties (Zott & Amit, 2009) and also to better understand how different business model designs can affect the way institutional complexity is managed. It follows, of course, that whether a business model is actually able to create value and, therefore, to be successful, depends also on the way the hybrid organization has dealt with institutional complexity; indeed, from conflicting and divergent perceptions it is very unlikely that something good is going to be originated. Here we want to bridge this gap by addressing the following research question: *What makes these novel hybrid organizational forms value-creating? Under what conditions is business model design able to deliver public benefits as opposed to additional costs or welfare losses to both private actors and society as a whole?*

Methods

In order to answer our research questions, we conducted an inductive multiple case study of PPPs in Italy. We used a comparative case study approach (Eisenhardt, 1989), in which each case is treated as an independent experiment (Yin, 2003). The sample is composed by two PPPs, established among public authorities and private companies as Special Purpose Vehicles (SPV). According to the different results that PPP1 and PPP2 – hereinafter we use these acronyms for our two cases, in order to maintain anonymity – have obtained in terms of value creation and subsequent success, our interest was in understanding the similarities and, even more, the differences in the approaches they have used for creating value and, therefore, dealing with multiple constituencies (Eisenhardt, 1989).

Research Setting

The introduction in Italy of Project Financing (PF) in 1998, by the so-called "Merloni-ter" law, constituted an important institutional innovation in the functioning of the public sector and, in turn, a large number of PPPs have been established following this reform. Italy ranks fourth among the most active countries in PPPs market for the healthcare sector. UK, Canada, Australia and Italy, in fact, represent 71% of the total investment value and about 84% considering the amount of awarded projects (Finlombarda, 2013).

PPP1 and PPP2 are both cases of DBFO (i.e., design, build, finance, operate), an example of partnership that enables collaborative actors to retain their independence (Skelcher, 2005) while being part of a new organizational context. Both in PPP1 and PPP2 a separate corporate entity, the SPV, was created to manage the partnerships. In the case of PPP1, the SPV bundled different tasks related to the redevelopment and operation of an existing hospital in a big urban area in North Italy. In 2014, the hospital had 1,213 beds (including 75 for day-hospital and day-surgery) and 4,124 employees. In the building phase, parts of existing buildings were refurbished, and new buildings were constructed. During the operation of PPP1 the following services are provided: equipment maintenance (including biomedical and technological ones); facility management; laundry, canteen and catering (including services for patients); cleaning; energy and waste management; ITC management; operation of commercial services.

In the case of PPP2, the SPV bundled different tasks related to the construction and operation of a new hospital in a medium urban area in North Italy. In 2014, the hospital had 680 beds (including 72 for day-hospital and day-surgery) and around one thousand employees. The operation of PPP2 delivers the following services: laboratory and diagnostic services; provision of medical gases; equipment maintenance (including biomedical and technological ones); facility management; laundry, canteen and catering (including services for patients); cleaning; energy and waste management; ITC management; operation of commercial services; other services (e.g., gardening, accommodation for relatives, nursery).

Both PPP1 and PPP2 were launched in the early 2000s and were relatively large projects (i.e., more than 150 M€, with substantial public capital contribution). Lifetime concession was respectively 28 and 27 years. In both the cases multiple actors were involved in the partnerships: the regional government, a few construction companies, several banks, and several companies and cooperatives in charge of facilities and services management. We report in Figure 1 the structure of PPP1 and PPP2, with all the partners involved. As we can see the actors involved are equivalent in both cases.

Insert Figure 1 about here

From their inception, PPP1 and PPP2, as hybrid organizations, combined different logics in the Special Purpose Vehicle (SPV), which had to interact among them and, in turn, with the public authority involved in the partnership.

The sampling strategy we used was based on the ability of the sampled PPPs to create value, since it represents the central tenet behind any public-private tie (Mahoney et al., 2009). Thus, the two criteria we took into account to assess whether a PPP may be considered successful or not, and so capable to create value, were the following: the time lag between the sealing of contract agreement and the financial close (at an initial stage); and the presence of litigations during the construction or operation phases (subsequent stage). According to previous literature, the sources of value creation are often multiple (Kivleniece & Quelin, 2012), and among them cost-minimization arguments are very popular (Bennett & Iossa, 2006).

The success measures we consider are both indicators of larger transaction and agency costs among private partners and/or between the SPV and the public sector. As regards the lag between the beginning of the project and the financial close, a longer time lapse is a measure of possible problems in the technological, financial and/or governance structure of the project. In such a phase, financial partners (i.e., merchant banks, PPP funds, insurance companies) try to assess the risk-sharing pattern in order to minimize their own risk, maximize their own returns with the purpose of setting up a project, which may be successful in the following years. Thus, a longer period to the financial close is an indirect measure of general and financial feasibility problems. In a similar way, when litigation arises after financial close, this may imply additional transaction costs among partners. Therefore, according to these parameters we sampled PPP1 as a successful example for value creation and complexity management and PPP2 as an unsuccessful one. Indeed, the difference in time lag to the financial close between the two cases is more than one year and half (i.e., PPP1 was quicker than PPP2); and in PPP2 we have evidence of many disputes then resulting in more than one litigation between SPV and procuring authority, and also between other partners. At the moment, PPP1 has been in operation phase for five years and half and PPP2 for seven years.

Data

Data collection followed common recommendations for case study analysis (e.g. Yin, 2003; Eisenhardt, 1989) combining preliminary interviews, formal semi-structured interviews, archival documents – including project planning, reports, company brochures -, published books and informal talks (see Table I).

Insert Table I about here

From the 27 interviews, authors improved their knowledge not only with reference to the two cases, but also about other PPPs and the Italian context for PPPs more in general. Preliminary talks, conducted also with representatives of organizations having advisory tasks in PPPs and functioning as promoter of best practices for PPPs in the national context, helped a lot to identify and gain access to initial interviewees. A "snowball technique" (Lincoln & Guba, 1985) was then used to identify informants who were knowledgeable and had participated in the cases under analysis.

Semi-structured interviews lasted about one hour and followed an interview protocol that evolved throughout the research project (Strauss & Corbin, 1998). The topics covered during the interviews were several, ranging from general interests in PPP, relationships among partners, to processes and procedures followed, decision-making dynamics, and governance structure. Among the questions included in the protocol were: "How and when did your company become involved in PPP1/PPP2?", "How do the different phases of the PPP1/PPPs have been managed?", "What does each of them have implied in terms of decision-making process and final agreements?", and "Which strategic elements have played a key role for value creation? And in which phases?". The interview protocol was also adjusted to create a second one, with the aim to include more general questions for those respondents belonging to advisory organizations, which have a more comprehensive feeling of the PPPs sector in Italy. All the Interviews were transcribed.

Data collection occurred in different phases during 2014 and the first part of 2015. Additional data and materials were collected before that period by one author for other ongoing research projects. It was extremely useful to triangulate our data with the one he gathered before.

Data analysis

We approached our analysis of how PPP1 and PPP2 dealt with the challenge of creating value via business model design, through an in-depth comparative analysis of the differences and similarities we found in their approaches (Eisenhardt, 1989). First, we collected and categorized all documents according to the different typology of actors. In other words, we separated interviews to the actors belonging to the government, from the ones to representatives of the financial sector, as well as other actors belonging to different contexts (i.e., construction, services, etc.). A similar approach was used for the archival documents coming from different sources. Each group of interviews and documents was analysed, highlighting various interests, approaches, and understandings, as a way to explain the main features of the logics characterizing PPPs. In doing that we followed a number of macro issues that, according to previous literature, deserved attention (Thornton et al., 2012).

After that, we started a second stage of analysis were we treated each case separately with the aim to find similarities and differences in their business models and, therefore, in the way they managed the institutional complexity for value creation. For each case we did some theory-driven coding, where we tried to find some recurrent topics of conversation according to some simple guiding research questions. What were the main challenges that PPP1/PPP2 coped with as hybrid organization characterized by institutional complexity? How did decision-making processes take place? Which part did have most power for the definition of the main expected outcomes? According to which resources did PPP1/PPP2 intend to create value? How was the business model designed? This phase was extremely useful to explore patterns in the data collected (Strauss & Corbin, 1998) and to identify first-order codes, or terms adequate at the level of meaning of the informants. The objective at this stage was to identify similarities and differences in the way the two PPPs practically developed their business model for value creation – both for the stakeholders and the society as a whole – and institutional complexity management. Examples of the first-order codes we used include 'relational contracts', '"no promotore" vs. "promotore" procedures', 'novelty and efficiency in resources combination', and 'experience and reputation matter in fulfilling obligations', and 'different stages have different needs'.

Next, we proceeded with a general axial coding (Strauss & Corbin, 1998) with the objective of giving the same code to events, acts or happenings that share common characteristics. At this stage our effort was in trying to theorize the initial codes, by identifying relationships among these first-order codes that allowed to develop higher-order themes. We sharpened these themes by connecting them to the literature on business model and value creation. Examples of second-order categories that emerged from this process are 'Government's political skills', 'knowledge-based resources', 'Technology', and 'multiple phases'.

The emergence of new categories, relationships, and themes was useful until we got a clear sense and understanding of the relationships among and the dynamics underlying them. We made sure that this process continued until additional analysis did not provide further insights in terms of new categories and relationships between them, in order to reach data saturation. We present in Figure 2 our data structure, showing the categories and themes derived from our data.

Insert Figure 2 about here

Findings

Defining complexity in PPP1 and PPP2

From their inception, PPP1 and PPP2 put together multiple actors, each of them carrier of specific attitude, strategy and objectives. We identified in our data the competing institutional logics characterizing the two PPPs, showing the features that make them different. Indeed, we highlight that it was not only a matter of the general sector they are from (e.g., public or private), but also of the specificities typifying each of them, since, for example, under the big umbrella of "market" or "private" logic we discovered a diversity of identities. We found that it is too restrictive to differentiate between public and private interests whether we aim to have a real picture of the complexity going on in PPPs. In Figure 1, we present this complexity by reporting the range of actors involved in PPPs and the set of relationships that existed among them. The SPV actually bundles finance, construction and operation into a single entity, by keeping private actors together, and interacts with public government. Thus, the SPV is at least characterized by three alternative logics, that we summarize in the *manufacture*, the *service* and the *finance* logics. In addition to these logics, which embody the different private constituencies' perspective, in PPPs we also have two additional logics personified by the procuring authority. The first one is the *State* logic, and the second one the *civil society* logic. Using the information we got from our informants, we briefly report in the following the main features of the five different logics we have observed.

Manufacturing logic. The manufacturing logic is essentially represented by the two construction companies that we interviewed. This logic seems to be a balanced mix between the "profession" logic described in Thornton et al. 2012 and the "market" logic described in Jay 2012. The manager of the PPPs division in the construction company involved in the SPV of PPP2 described the company's interest in the partnership in the following way:

> It's sometimes difficult to let other partners understand that our interest in participating in a PPP does not differ from being involved in another kind of

> operation, let's say procurement contract. A good and quick return on investments is the most attractive characteristic of such operations, as long as the lowest risk possible…we are absolutely risk adverse!

Or, as the manager of the construction company involved in PPP1 reported:

> Since our private firm links together different technical competences, before entering a project we value enormously how they can be fully exploited for gaining an appropriate return. We base our job on the managerial expertise we possess and on the ability to have a quick turnover of money and resources involved in operations…our economic system is rooted in personal and family resources.

According to our key informants, the manufacture logic seeks to capture financial returns through exploiting business opportunities. It is essentially based on managerial authority, risk aversion, quick financial return on investments, personal expertise, family/personal capital, and scarce client attention.

Service logic. The service logic is represented by the multiple subcontractors that are involved in the management of the hospital over the lifetime of the partnership, that in both our cases is about 30 years. We interviewed the two of them in charge of the maintenance of technology plant and the cleaning service in PPP1, and the one responsible for facility management and maintenance in PPP2. The Manager of the cleaning service company told us:

> We bound hand and foot to the project. This is why we have to take care of immediate problems but think with a long run perspective. Our mission is to provide the best service possible to satisfy patients; if they are satisfied also the public authority is pleased.

Again, an engineer managing the maintenance of technology said:

> Our interest is in keeping the plant of the hospital in good order, otherwise costs will increase and operative cash flows from public authority decrease exponentially. Our management's expertise plays the most important role over the 30 years and it mostly depends on that our success in the long run.

In contrast to the manufacturing logic, the service logic is based on a long-term perspective, where managerial competences represent the fundamental asset for controlling costs and the service provided. Large attention is being paid to final clients, since revenue flows depend on the fulfilment of the contracted service and quality standards.

Financial logic. The financial logic is the closest to the "market" ideal type reported in Thornton et al. 2012. We interviewed two different financial partners involved in PPP1 and PPP2, which in both cases provided debt finance to the SPV. Our interviews highlighted that what providers of funds value most is the risk they are running. In this sense, PPPs do not differ from other procedures since the interest is evaluated according to the degree of risk margin. In this sense debt holders are, on one hand, closer to the service logic for the fact of being usually bound to the project for a long period of time (sometimes for the entire life of the PPP), on the other hand, they are closer to the manufacture logics for their characteristics of being risk averse. This implies that providers of capital worry about the financial strength and expertise of sponsors, valuing their previous experiences, reputation and commitment to the project. The same counts also for evaluating partners from the public government. The manager of the bank involved in PPP1 said:

> Before financing this PPP we were quite worried about the risk we were going to undertake. Risk evaluation is the most important activity we have to perform before any decision. At the end of the day, we have to be accountable to our shareholders to guarantee them at least a little amount of profit. This is why a meticulous consideration of sponsors and public authority's previous experience, reputation, commitment is absolutely necessary.

According to study, the financial logic is based on return on investment, which, in turn, is rooted in a highly risk averse behaviour. Fiduciary obligation is extremely important. Moreover, this logic finds its source of authority more in shareholders power than in top management charisma.

State logic. In the words of one government manager, "the State's interest in PPPs is to maximize social welfare through the provision of more efficient infrastructures" (Public Manager in PPP2). Public authority has been described by our informants as extremely bureaucratic and poor in resources and technical expertise. This logic does not differ from previous conceptualizations made by institutional scholars and our findings confirm the validity of categories already present in the literature (Thornton et al., 2012; Jay, 2012). The state logic is rooted in democratic participation and bureaucratic domination. The public manager involve in PPP1 told us:

> This PPP has been extremely valuable for us, since it has allowed to have a new, efficient hospital that we would have never built by ourselves, due to the lack of funding and specific competences. Of course, this has been an extremely illuminate case in the Italian context, because politicians have behaved in a judicious manner, looking at civil society's interest and not personal carrier.

Civil society logic. Civil society represents the other side of the coin of the public sphere. As recipient of the public services provided through PPP, the main interest of the civil society is to get the highest quality service at the lowest price. This logic is based on collective action as source of authority and long-term perspective as time frame since healthcare is a fundamental right for each human being's life cycle. The main constraint for this logic is represented by the risk of being poorly represented into society and so poorly influential for decision-making on public infrastructure construction and services provision. Trade unions and trade associations are the most significant examples of carriers of this logic. We have based the conceptual categories describing civil society logic on the ones present in the previous literature (Jay, 2012).

We describe all these logics in Table II, which includes the abstract structural dimensions characterizing each of them (Thornton et al., 2012; Scott, 2003).

Insert Table II about here

Since the interests and objectives present within PPPs are multiple and often conflicting, our respondents said that the creation of a constructive and value-creating relationship mostly depends on how the interaction among these different identities is managed and carried on. It is widely recognized that "it is absolutely impossible to be able to generate value for stakeholders whether not all the parties are committed to undertake a reasoned and shared path" (Financial partner in PPP1).

Value creation and institutional complexity management through Business Model Design

In this section we will focus on the three business model characteristics identified through our coding, that actually played a major role in the different outcomes achieved by PPP1 and PPP2. They are *governance*, *content* and *structure* in PPP design (see Figure 2). In particular, we report in this section the mechanisms underlying their functioning and the differences that led PPP1 to effectively create value and public benefits, as opposed to deliver additional costs and welfare losses for PPP2.

Governance. We found that when the PPPs we studied employed certain approaches and procedures to define their governance, they tended to be more successful and to deliver effective value to their stakeholders and society as a whole. Governance is about who is in charge of doing what. A first important difference between PPP1 and PPP2 is represented by the diverse formal procedures they followed to establish the hybrid partnership and, therefore, the SPV. Whereas in PPP1 the regional government opted for the "no-promotore" procedure (*ex* art. 143, Codice degli Appalti Pubblici) to start the collaboration, in PPP2 the public authority adopted the "promotore" procedure (art. 153, Codice degli Appalti Pubblici). The huge different between the two procedures is clearly explained by the PPP Manager belonging to the public authority in PPP1:

> Whether the public body has the necessary competences to follow PPP establishment throughout the initial phase – before that hospital construction starts – then the "no-promotore" procedure (the one that we undertook) represents the best solution, since it allows keeping real competition alive. And competition is extremely important because it actually permits to come to the best arrangement through a continuous and fruitful exchange of knowledge with the private partners.

A competitive auction guaranteed more transparency and better results in PPP1. Instead, the Manager in charge of PPP operations of an advisory company knowledgeable about PPP2, said that the establishment of the collaboration between the public authority and the private company that took care of the construction phase, actually happened through a negotiation process. In this case, the government excessively relied on constructor's advises and competences, without an accurate definition of conditions, a careful evaluation of the risks associated and subsequent assignment of them.

The most important aspect of the "no-promotore" procedure followed for PPP1 is the feasibility study carried out by the government before starting the procedure. This reduced a lot the challenges that public authorities often meet in delivering infrastructure, that relate to the what and when to build, the cost-effective building of infrastructure, and the service quality thereafter (Engel et al., 2014). Thanks to the feasibility study, the regional government already had "a very clear idea about project conditions, vetting process, risk-managing capacities, control system, etc." (Infrastructure Manager, City Government in PPP1). The dialogue opened with private partners was more informed and constructive from the very beginning. This was actually possible because the public body displayed appropriate skills and competences to manage the process and discuss with private representatives appropriately. This allowed for a participative approach where the responsibilities were jointly shared among public and private partners and a tighter collaboration among parties was put in place. The Responsible for hospital construction working in the construction company in PPP1 said:

> We actually found a public counterpart that was very dynamic in the approach used. We were able to co-manage all the trickiest aspects in a great manner thanks to the productive interaction and fast answers. Each partners put on the table its skills and competences in order to obtain the best result possible, without looking at any personal interest. I personally think that the PPP Manager of the government was extremely prepared to discuss also the most technical aspects. Thanks to a feasibility study and the public project leader's inclination to do the best for society, it was possible to co-govern the PPP in a very effective manner.

Therefore, we argue that this participative governance structure in PPP1 – which is also a result of the procedure undertaken to establish the partnership – is an important characteristic of the governance approach that resulted successful within the hybrid organization for final value creation. Political skills and capabilities in dealing with the whole process are particularly important in this respect. Indeed, they represent the mean through which knowledge transfer occurred and short-sighted approaches were avoided. In PPP2, for example, we observed a high degree of political agency that impeded the selection of the best governance structure for reaching social welfare. In particular, regional government took advantage of personal relations for reinforcing personal interests instead of supporting collective ones. Instead, in PPP1 relational contracts were used in a positive way and the PPP Manager of the public authority sometimes made available his personal connections to improve the knowledge about, for example, technical aspects and to increase PPP effectiveness in favour of the other partners and citizenry. This resulted in "a more balanced SPV, in a more informed and cautious debt emission, in a better definition of tasks for minimizing the risk of incomplete or unfitted hospital infrastructure" (Financial partner in PPP1). Moreover, political capabilities allowed for renegotiation of contract aspects in PPP1 whereas previous agreements did not fit anymore with the changed needs. This was also possible since a special unit managing PPP operations has been set up at the regional government, with projects leaders evaluated only according to the results reported in doing this job.

On the other hand, we observed in PPP2 a rote execution of initial contract clauses by the side of public body, where the only form of involvement in the PPP was to check the fulfilment of defined tasks required to the private partners. In this case, the greater political uncertainty of the institutional environment did not affect positively the use of skills and competences, since the succession of politicians did not support a culture inclined to social welfare. Several project leaders followed one another – three in total from the beginning to the end of construction phase – with low incentives in doing their best, since they were evaluated also accordingly to other activities. This weakened a lot public bargaining power.

In addition, the model of governance was deeply influenced by the equity capital invested by private partners, and in particular by the constructor. The case of PPP1 clearly showed that the continuous and constructive flow of communication undertaken between public and private partners permitted to increase trust between parties and to produce a lock-in effect for the constructor involved in the PPP. This meant a greater and more engaged involvement also after the construction phase, when problems related to facilities maintenance were more likely to appear. To this end the Manager in charge of maintaining technology plant and equipment in PPP1 said:

> We had a previous experience in PPP, but it was not so successful in terms of tasks management and fulfilment. Indeed, the relationship between the government and the constructor is based on trust and cooperation. The objective of pursuing their own interests was not in contrast and detrimental for social welfare. According to our experience, it is pretty uncommon that the constructor decides to remain deeply involved with equity capital after that construction phase is finished.

In institutional terms, contrasting institutional demands create a need for business models that are able to take advantage of a governance approach based on a participative attitude from the partners involved. An important precondition to obtain this outcome resides in the procedure followed to establish the PPP and in the political skills of the public authority. Instead, an important consequence is represented by the degree of formal involvement in the PPP, such as the amount of equity capital invested throughout PPP life cycle.

Content. Along with the different governance approaches adopted, we found that PPP1 and PPP2 designed their business models around different contents. Content is about the activities needed to be performed in terms of the use and combination of knowledge-based resources in hand of public and private partners, the set up of financial arrangements, and the prevision of technology development. Looking at the procuring authority and the private partners (bundled into the SPV), we saw that resources integration and coordination was based on the different capabilities each of them can rely on. On one side, we found that the main knowledge-based resources put on the table by the government were capabilities and competences about healthcare planning, such as disposition of healthcare services inside the hospitals and prevision of future demand. On the other hand, the main competences that private partners brought to the partnership were services and facilities management, time management, and construction capabilities. Whether both PPP1 and PPP2 were characterized by the provision of these different and complementary skills, the way they tried to combine them differed a lot. Whereas in PPP2 the focus was mostly on partners' interests and on the activities that private actors had to perform within the hybrid organization, with an approach based on a substitution effect between public and private capabilities (i.e., "The constructor was responsible for the first stage of construction, then public authority had to monitor the observation of planned works, then the constructor continued with stage two, etc.; but, you know, this meant low coordination and high delays" (Representative of Advisory company, PPP2)); in PPP1, instead, the focus was on how healthcare service can reach the highest standard possible and on how PPP's partners can complement their knowledge for achieving this objective. Therefore, complementarity among different knowledge-based resources was pursued and this allowed for a better exploitation of capabilities and a useful learning process among parties (i.e., "Parties involved in PPP1 worked hard to put together their specific knowledge and competences and to manage them in light of a complementary approach. Both of them were responsible for the entire process and they always coordinate their resources with the aim to avoid delays and problems caused by each other's lack of knowledge" (Manager of Advisory company, PPP1)).

Moreover, whereas in PPP2 knowledge-based resources were mainly used to increase novel aspects in hospital construction, in PPP1, instead, in addition to novel elements that can help to increase functionality in hospital structure, importance was given to efficiency in construction and services delivery. So, for example, an architect from the construction company said:

> From the very beginning, we had the impression that there was a need to create an infrastructure that anyone had ever constructed. So, it was important to let people be astonished for the innovative outcome that we can bring to the hospital in terms of structural elements. The commitment was to create a 'unique' hospital for what concerns the outer face, and to find new arrangement of the rooms, operating theatres, etc. in order to anticipate future needs.

But, this spirit of innovation has been then rewarded with a lot of delays, inefficiencies in hospitalization, inefficiencies in technology plants functioning, web services, etc., as it was reported by the facilities Manager. A clear example confirming this approach of improving as much as possible novelty to the detriment of efficiency is about the decision of PPP2 to dismiss all the competences related to technology plant maintenance. The service was outsourced, but in order to evaluate it and move ahead with future improvements it would have been required to have at least a basic knowledge on this aspect.

On the other hand, PPP1 valued mostly functionality and efficiency in the contractual arrangements of the hybrid organization. This greater focus on efficiency-centred aspects resulted in a high quality service and, in turn, high customers' satisfaction. Relevance assigned to efficiency meant that contractual design was centred around reducing as much as possible uncertainty, complexity, information asymmetry and time inefficiencies in transactions among parties. So, for example, specific clauses for windows cleaning were provided, clearly stating that they had to be removable – as opposed to the case of PPP2, where huge windows were installed and very high, unbudgeted costs were originated. Or, again, clauses related to service quality precisely contemplated the standards for keeping rooms and places clean. Specific measures were provided for food provision, rooms cleaning, theatres maintenance, etc., avoiding the general statement that "Places must be kept clean, maintained and in good conditions, otherwise sanction will be inflicted" (Statement from contractual condition in PPP2). But, how are cleanness and good conditions measured in practice? Ambiguity in service standards and deficiency in conflict resolution mechanisms increased risk quite a lot. Conversely, the exact definitions of rules, measures and people in charge of solving problematic issues drastically reduced agency problems among parties and inefficient solutions. The degree of contract completeness in PPP1 is driven by the verifiability of infrastructure quality and operation efficiency. Once service standards are set, the firm can be left free to choose the optimal combination of inputs that minimize costs.

This aspect had important consequences also for agreements about technology design within the hospital. In particular, the prescriptive approach used in PPP1 allowed for a better and more efficient solution when renegotiation was needed. In both cases happened that technology changed faster than expected and PPP facility needed to be changed and reorganized before construction ended. This meant an enlargement of some buildings in the case of PPP1 and spaces reorganization in the case of PPP2. Whether the expectation of this possibility was accurately expected in PPP1, with specific clauses and conditions about renegotiation that did not affect negatively the ongoing process, in PPP2 this meant "angry dispute, misunderstanding, inefficient agreements and loss of time causing important delays" (Engineer of construction company, PPP2).

The last, but not less important, aspect of the business model content relates to risks allocation and flexibility of payments that were managed differently and with different degree of success by PPP1 and PPP2. In particular, the extent to which risks were transferred largely resided on the choice of payment mechanisms, which in turn depended on the experience, reputation and financial strength of each partner. In both PPP1 and PPP2 we observed revenue flows based on a combination of fixed fees – not dependent upon service quality – and variable fees – dependent on service quality. This permitted to share the risk associated with services provision between the government and the private companies in charge of managing hospital services. But, whereas in PPP1 this allocation of financial resources succeeded, in PPP2 completely failed. The PPPs Manager at the Regional government in PPP1 explained:

> We know very well that facilities managers base their financial strength on credit received from banks. And they care much for their commitment in this regard. If we stop payments for any reason, this results in a failure of the entire process whose main victims are the end users. We provided a revenues model based on shared responsibility because we know that we own the right skills to interact with the private partner and it is not our interest to damage it. And, also, the private company is strong enough to be able to bear any cost overruns and not complain for that.

Whereas in the case of PPP1 flexibility in payments design meant a strong regulation of contractual agreements between public authority and SPV, with all the renegotiation possibilities also included in the framework, in the case of PPP2 payments flexibility was simply caused by contract incompleteness and low contractors' experience and reputation. Therefore, when poor quality in service provision was observed, public authority simply blocked the fees, letting the SPV incur in financial straits that then provoked additional problems. So, whether a substantial fraction of the SPV's revenues are derived from payment by public authority, these payments highly depend on the ability and desire of the procuring authority to fulfil its obligations. In this respect, the strength of government is very important in order to facilitate problem solving without contracts renegotiation each time a little modification is needed. So, in case of contract incompleteness the role of banks was even more important, since they performed also a monitoring role that tried to mitigate moral hazard by scrutinizing the behaviour of the SPV and its contractors, and to guarantee economic and financial sustainability.

Thus, whereas in the case of PPP1 costs associated to coordination were higher than those linked to control and supervision, in the case of PPP2 it was exactly the opposite and this resulted in “a poorly success in risks and responsibilities allocation and responsibilities and in a greater incomprehension and worst alignment of parties’ interests” (Bank Manager in PPP2).

Structure. Structure is about how the activities are sequenced and how the management of these activities change over time. We found that both PPP1 and PPP2 were organized around the following three macro cycles: the *preliminary* phase, the *building* phase and the *operation and maintenance* phase. The first phase related to the formal and informal discussions, agreements, and opportunity recognition occurred before the SPV establishment. Whereas in PPP1 it was very articulated according to the formal procedure undertaken by the procuring authority and the huge number of actors involved before the final selection, in PPP2, instead, it was quite simple with partners that were already defined in an informal way and actors sporadically discussing and interacting. The building phase occurred after the SPV installation and was not less important than the previous one in terms of knowledge exchange and objectives definition. It is just at this stage that the specific skills and capabilities gained relevance for renegotiations, subsequent improvements and social welfare protection. Building phase should not be characterized by the simple execution of planned building pacts. And, finally, the operation stage is critical for the multiple equilibria it implies. In particular, it seemed quite linear whereas a good job was done in the previous phases, otherwise it revealed all the problems collected and unsolved during the previous phases with predictable negative outcomes, as in the case of PPP2.

Thus, even though the process was the same, we actually found that the business model elements characterizing the governance and the content around which the hybrid organization was established evolved in a process model in PPP1, while held almost steady in PPP2. This meant that whereas in PPP2 the different inputs, such as resources, skills, governance approach, financial assets were fixed once for all in a given time, in PPP1 we found a dynamic process through which the relevance and the focus on different elements changed over time, evolving and adapting to new needs, opportunities, and technologies. In Figure 3 we show how the structure of PPP1 adapted according to the different phases identified.

Insert Figure 3 about here

As a key informant from an advisory company involved in PPP1 explained:

> I have had the chance to follow different PPPs and I can say that any of them was very similar to the other. Those PPPs really able to create final value are the ones driven by a 'competent dynamism' that make things evolve and adjust in line with temporal changes and new needs. Especially in these cases, where complex organizational arrangements are set up for a long period, there is a huge need to pay attention to all these elements otherwise the risk to start to build something that is already obsolete is very high. And then the subsequent management can only be disastrous.

Discussion

Implications for hybrid organizations dealing with institutional complexity

The institutional literature has recognized that the growing pervasiveness of hybrid organizational forms is a function of the increasing scope for pluralistic institutional environments (Greenwood et al., 2011; Pache & Santos, 2013). Since a combination of specific skills and competences is more and more required to compete in modern society, organizational forms relying on collaborative activities have become more prominent and widespread, across the world, in key sectors (Kivleniece & Quelin, 2011; Selsky & Parker, 2005), such as healthcare (Dunn & Jones, 2010; Goodrick & Reay, 2011; Reay & Hinings, 2005, 2009) and education (Heimer, 1999; Thornton et al., 2005). As a consequence, institutional complexity has become a permanent condition of organizational life for a large number of organizations. The existing literature dealing with institutional complexity has largely focused on the way organizations respond to this phenomenon, highlighting that responses are mostly dependent upon two facets of institutional complexity, i.e., the number of logics and the degree of incompatibility among them (Greenwood et al., 2011; Pache & Santos, 2013). According to such a view, organizational responses can focus on either different organizational strategies, such as compromising or decoupling, or organizational structures, such as blended or structurally differentiated hybrids (Greenwood et al., 2011).

More specifically, organizational filters have been said to frame how hybrid organizations experience institutional complexity and, in turn, how they react to it. Therefore, *field position* (i.e., organizations located at the 'centre' or 'periphery' in the organization field) (Battilana et al., 2009), *structure* (i.e., the organization of the different communities inhabiting hybrid organizations) (Delmas & Toffel, 2008; D'Aunno et al., 1991), *ownership and governance* (i.e., the distribution of power reflected in ownership and governance arrangements) (Goodrick & Salancik, 1996; Pache & Santos, 2010), *and identity* (i.e., what defines the organization different from the others and shapes its discretion) (Kraatz & Block, 2008; Glynn, 2008) have been considered important organizational attributes in defining alternative repertoires of actions and responses (Greenwood et al., 2011).

Previous works have treated institutional complexity in hybrid organizations more as a problem to solve than as an opportunity to catch. Therefore, organizations have been analysed according to their ability to resort to avoidance, defiance, compromise, or manipulation as ways to mitigate the problem. Here, we propose a new approach whereby hybrid organizations experiencing institutional complexity may use this complexity as a source of value creation. In this sense, our findings provide initial evidence of the fact that the inherent divergences among the different logics can be leveraged by hybrids in order to create value for stakeholders and society (Kivleniece & Quelin, 2011), instead of being considered only a source of conflict and additional management costs (Pache & Santos, 2013). So, the different competences of public authorities and private companies in terms of, for example, healthcare planning and prevision of future demand, for the former, and services, facilities, and time management, for the latter, can be seen as complementary skills that allow to create value that would be otherwise impossible to generate. In doing so, organizations exert a high degree of strategic behaviour that is rooted in the way relationships, activities, and contents are managed and organized inside the organization. Thus, our work goes far beyond the simple presentation of available responses to institutional complexity, by presenting the underlying value creation attributes within hybrid organizations and intercepting a process model through which institutional complexity can be managed over time. Business model design, as strategic, purposeful action undertaken by hybrid organizations for defining partnership governance, content and structure, represents the bridge through which institutional complexity and value creation mechanisms may be linked. We show that the challenges associated to the multifaceted nature of hybrids can be understood as the locus of value creation instead of conflict.

Moreover, we also contribute to institutional complexity literature, by empirically defining five different institutional logics operating within PPPs. Since the number of logics has been recognized as a fundamental variable influencing the degree of institutional complexity (Greenwood et al., 2011), here we present a case where institutional complexity is supposed to be stronger to the ones commonly presented in the literature, where institutional complexity is characterized by the presence of two different logics within the same organizational context. Also, we are able to show the specific elements that bring these five logics to diverge, without implicitly assuming their incompatibility (Greenwood et al., 2011).

Summing up, we believe we have extended what we already know from the existing literature offering a novel perspective on how organizations can take advantage of institutional complexity for creating value through business model design. By linking the stream of research on institutional logics and complexity with the literature on business model, our work starts a conversation on the role of institutional complexity as antecedent of value creation in hybrid organizations.

Implications for business model literature

Our study also contributes to the literature on business model by offering an empirical understanding of how business model design occurs and may create value in new hybrid organizations, but also of how different stakeholders are networked and organized, and with what consequences.

Recent advances in communication and information technology have increased the scope for boundary-spanning organizational forms to design new ways of conducting and engaging in economic exchanges, both within and across firm and industry boundaries (Zott & Amit, 2007; Dunbar & Starbuck, 2006; Mendelson, 2000). According to that, a new stream of literature focusing on business model design (i.e., new business models brought to market for the very first time, usually by new ventures), as opposed to business model reconfiguration (i.e., changes in existing firms business models), has gained attention in recent management literature (Amit & Zott, 2001). However, despite the huge attention being paid to this new streams of literature, research contributions to the business model literature remain largely based on theoretical frameworks trying to clarify and reduce the wide divergence existing about several concepts (Zott et al., 2011). Moreover, even when empirical studies have been conducted, the concept of business model has been mainly used in relation to economic profits and performance (Chesbrough & Rosenbloom, 2002; Massa & Tucci, 2013).

Our paper contributes to business model literature by paying attention to new organizational forms designed for purposes that transcend economic profits, such as social welfare and public health (Seelos & Mair, 2007; Yunus et al., 2010). In particular, we are able to provide empirical evidence on how organizational activities are defined and organized and on how networked skills and competences contribute to that. In this way, we add insights to the concepts of 'value' and 'networked mechanisms', core words in the literature of business model, that have been empirically overlooked in the current literature (Zott et al., 2011; Keen & Qureshi, 2006). More specifically, according to the former dimension, our comparative study showed that in order to be fully understood, business model design needs a process perspective dealing with how governance, contents and structural aspects change over time. The existing literature usually looks at business model dimensions in a static way, without any attention to the dynamic aspects that require business model evolution and development over time. Indeed, our two cases bring clear empirical evidence that not only business model ingredients (i.e., governance, content and structure) matters, but, even more importantly, that the way they are integrated over time actually makes the difference in terms of results (Baden-Fuller & Morgan, 2010). This is not only a problem linked to incomplete strategy and partially formed models in new organizations (Morris et al., 2005), but mainly a matter of temporal evolution and changing conditions that need adaptation towards new arrangements. This is exactly what our findings show in the different phases that characterize PPPs. And, this is especially true in hybrid organizations, where temporal aspects may influence the network of actors in different ways and business model evolution can result to be very challenging. Our findings are able to confirm that the success of a business model is much more dependent on activities combination than on the activities themselves (Baden-Fuller & Morgan, 2010). Indeed, we see that it is just the way that processes and dynamics are implemented in putting together the different business model elements by PPP1 and PPP2 that make them to win or lose. In bridging this gap, we are actually providing a link between business model and organizational forms literature, by showing that identical organizational forms implement the same business model design but with different dynamics and, in turn, different result in terms of value creation (Keen & Qureshi, 2006).

With reference to the above-mentioned 'networked mechanisms' dimension, our study brings a novel contribution to the literature on business model by comparing a successful and unsuccessful case and, in particular, by showing how the network of actors is managed over time. Indeed, examples in our paper clearly show what makes a business model working or not within a specific and complex organizational form. So far, empirical analysis has focused on what we can learn from the experience in the e-commerce sphere (Zott et al., 2011), but we are still missing empirical evidence about what dynamics can bring a network of cooperative actors to win or lose in business model implementation. The investigation of PPP1 and PPP2 clearly shows that the process of entrepreneurial venture establishment involves the design of the governance, content and structure of the transactions that are performed by a network of exchange partners – and this is especially true in hybrid organizations where multiple logics are present – aiming at value creation (Amit & Zott, 2001). Even though the concept of business model traditionally focuses on cooperation, partnership, and joint value creation (Zott et al., 2011; Magretta, 2002; Makinen & Seppanen, 2007; Mansfield & Fourie, 2004), our findings demonstrate that not all the network combinations for business model design and implementation are intended to succeed. The creation of something of economic and/or social value is essentially based on the way that new jointly generated mechanisms, emerging from the sharing of information and knowledge, are implemented (Miles et al., 2006; Zott et al., 2011).

Implications for PPPs literature

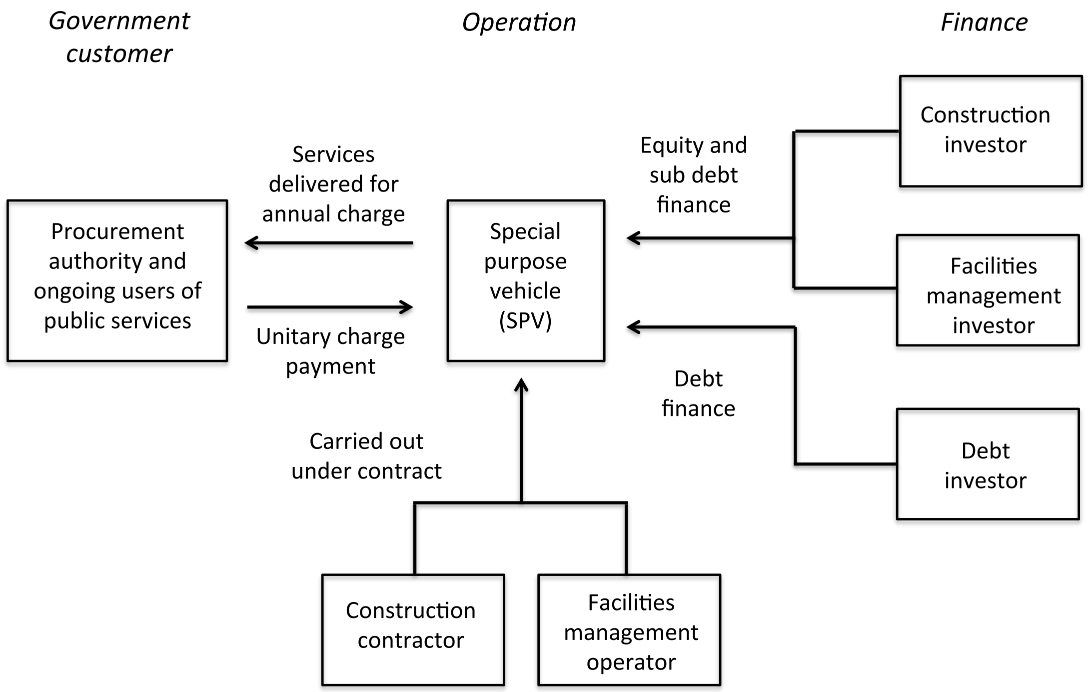
It is also worth noting that our work has important ramifications for the literature on PPPs. The existing studies are fragmented among several streams of literature, going from public administration and organizational economics, to project management and contract theory. Despite the range of theoretical approaches that have been used to study PPPs, little work has been done using institutional and managerial lens. The academic discussion has mainly been focused on the understanding costs and benefits of bundling tasks in contexts featuring transaction costs, contractual incompleteness and agency costs (Iossa & Martimort, 2015). The literature on the economics of PPPs can roughly be decomposed into two different strands: the first one dealing with incomplete contracts and property rights (Hart, 2003; Bennet & Iossa, 2006); the second one analysing agency problems, mainly in moral-hazard environments (Martimort & Pouyet, 2008; Macho-Stadler & Perez-Castrillo, 1993). Both strands of literature find that bundling of tasks (e.g., construction and management of public infrastructure) are beneficial in terms of social welfare, because of the exploitation of technological (or organizational) synergies. Though previous studies confirmed that frictions among the private partners forming the hybrid organization may cause significant problems and unintended consequences, as stated by Hoppe, Kusterer and Schmitz (2011) and Greco (2015), we still do not know empirical evidence about how this problem can be solved.

Our study uses an institutional and business model perspective to analyze PPPs activities and the organizations involved in this process. In particular, it points to the important insights that these new perspectives can bring. We offer a different frame to explore PPPs as hybrid organizations and to understand how the complexity that they experience can be managed. Thus, we contribute to existing literature by showing that the complexity derived from bundling activities and agency problems can be softened only relying on specific organizational dynamics featuring PPPs. In doing that, we are able to prove that an organizational and managerial approach cannot be neglected if we aim at understanding how the multitude of actors involved in the partnership distribute tasks, costs, and risks, and what are the following outcomes. PPP1 and PPP2 are clear examples of how the management of organizational and strategic dimensions, such as the governance, content and structure of PPP, represents key assets for the final results achieved by PPPs.

Given that the recent spreading in the use of PPPs has been combined with a higher degree of complexity of legal, organizational and financial complexity of these hybrid forms (Greco, 2015), understanding the different organizational arrangements and approaches they use to help potential collaborators to create useful partnerships is fundamental. Our findings clearly contribute to the PPPs literature by starting a stream of literature based on a new approach, that complements what we already know from the economics literature.

Figures and Tables

Figure 1. Structure of PPP1 and PPP2



Source: Adapted by Engel et al., 2014

Table I. Data sources gathered between January 2014 and April 2015

Interviews – PPP1 and PPP2	***Number of interviews***
Governments	5
Construction companies	6
Operation and maintenance contractors	7
Financial partners (i.e., Banks and PPP funds)	5
Advisory companies	4
Total	*27*
Archival materials	***Approx. number of pages***
Companies reports	50
Project planning reports	70
Informal talks	25
Books	450
Total	*595*

Figure 2. Data structure

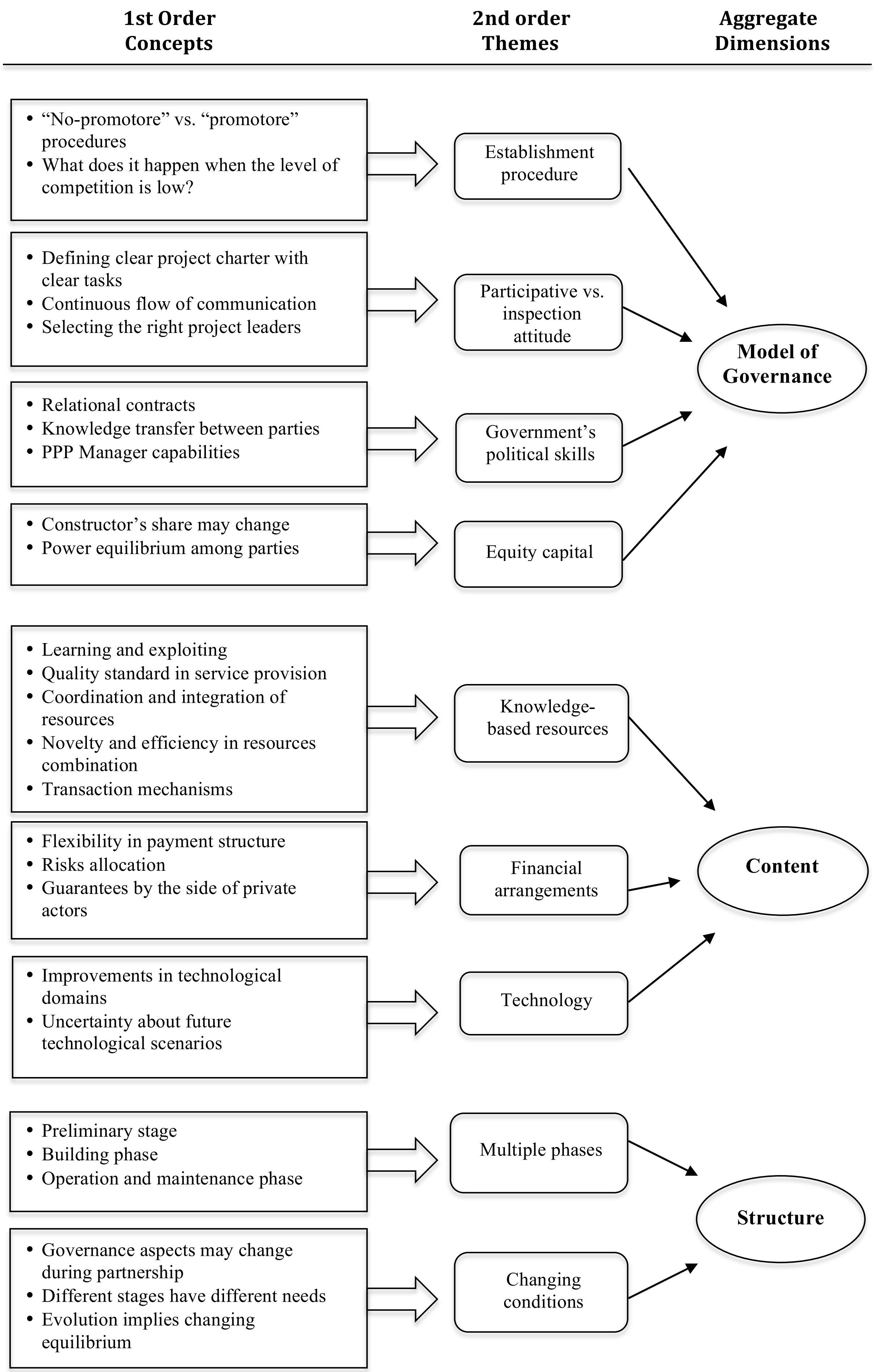
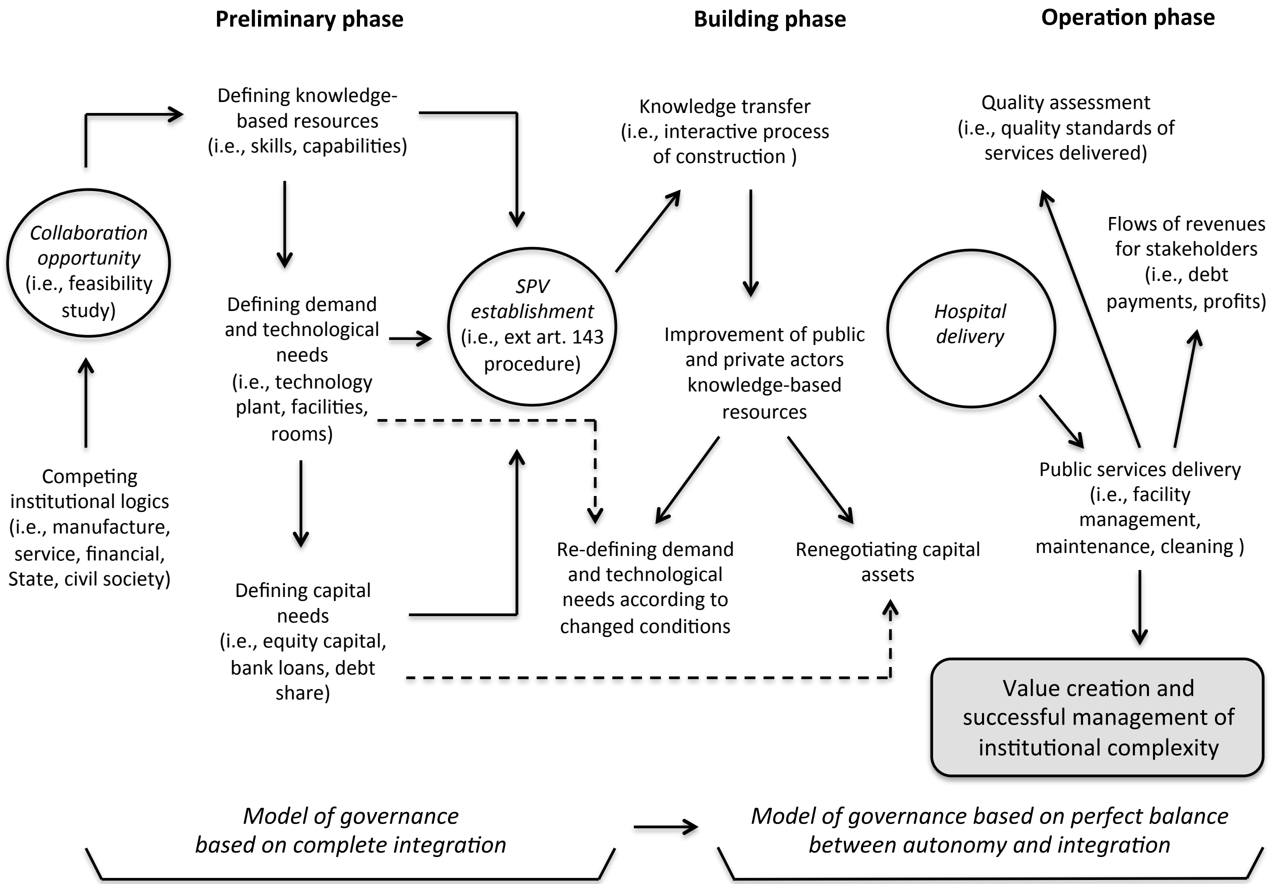


Table II. Comparison of the Manufacture, Service, Financial, State and Civil society logics at play in PPPs

Characteristics	**Manufacture logic**	**Service logic**	**Financial logic**	**State logic**	**Civil society logic**
Goal	Quick return on investments	Cost-cutting in services delivery	Derive a profit for shareholders	Increase community good	High-quality public service provision
Source of authority	Professional expertise	Top management	Shareholders activism	Bureaucratic system	Collective action
Target population	Clients are customers providing income	Clients are beneficiaries of provided services	Clients are customers and seen as more or less risky source of income	Clients are all the people belonging to civil society	Faceless
Constraint	Personal capitalism	Demand uncertainty	High risk aversion	Scarcity of resources	Poor representation / Normative expectations
Time	Work progress cycles / Short-term perspective	Operation cycles / Long-term perspective	Financing cycles / Long-term perspective	Election cycles / Medium-long term perspective	Life cycle / Long-term perspective

The categories have been derived from previous literature on institutional logics (Thornton et al., 2012; Jay, 2012; Battilana & Dorado, 2010)

Figure 3. Activities structure in PPP1



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