Beyond Institutional Complexity: The Case of Different Organizational Successes in Confronting Multiple Institutional Logics

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Abstract
Organizations are increasingly exposed to a multiplicity of demands and pressures imposed by their institutional environments. However, not all organizations experience institutional complexity to the same degree or are as successful in managing complexity. Prior research has simply suggested that some organizational and field characteristics affect the way in which organizations shape strategic responses to institutional complexity. Data from a multiple, comparative case study of three different types of organizations involved in technology transfer, show which strategies are more likely to lead an organization to respond successfully to a situation of institutional complexity. We uncover three main strategies: having boundary spanners, mirroring institutional demands and buffering institutional logics. This study contributes to the institutional logics perspective by showing how institutional complexity might be successfully managed within organizations.

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Abstract
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INTRODUCTION

Institutional logics are taken-for-granted rules that regulate action by furnishing “assumptions and values, usually implicit, about how to interpret organizational reality, what constitutes appropriate behavior, and how to succeed” (Thornton, 2004). In particular, they provide social actors with formal and informal rules of action and interaction, cultural norms and beliefs for interpretation, and implicit principles about what constitute legitimate goals and how they may be achieved (Friedland & Alford, 1991; Thornton & Ocasio, 1999). Although institutional logics, as guidelines describing the “way a particular social world works” (Jackall, 1988), may constitute an useful tool for understanding how a particular field is structured and organized, there is a growing recognition in the neo-institutional literature that organizational and societal settings are more and more exposed to different institutional prescriptions contemporaneously (Dunn & Jones, 2010; Pache & Santos, 2010).

Organizations experience institutional complexity every time they have to handle the divergent interests, goals and practices coming from multiple institutional logics (Greenwood et al., 2011). Hospitals and health care organizations (D’Aunno et al., 2000; Reay & Hinings, 2005, 2009), university departments (Nelson, 2005), arts organizations (Alexander, 1996), non-profit and social organizations (Pache & Santos, 2010; Tracey et al., 2011) and public schools (Rowan, 1982) are all examples of organizations facing institutional environments that exert pluralistic demands.

To date, however, much of institutional theory has been focused on explaining the role that dominant institutional logics play in promoting conformity within fields and organizations (Tracey et al., 2011). Organizations have been widely recognized as “entities reproducing a single coherent institutional template in order to gain legitimacy and secure support from external institutional referents” (Pache & Santos, 2012; see also Di Maggio & Powell, 1983). Only recently, have some works begun to pay attention to situations where
organizations are affected by institutional complexity and to present different configurations of multiple logics coexistence within the same organization (Pache & Santos, 2012; Goodrick & Reay, 2011). For example, Goodrick and Reay (2011) presented “dominant logic”, “competition”, and “ongoing coexistence”, as three different conceptualizations for institutional complexity, and Pache and Santos (2012) spoke about “decoupling”, “compromising”, and “combination”, as strategies deployed by hybrid organizations to respond to multiple institutional pressures. However, if we know something about organizational responses to competing multiple logics, what is still missing is a clear understanding of why some organizations are more able to cope with institutional complexity than others. In particular, what determines organizational success in responding to institutional complexity? Which strategies lead some organizations to face pluralistic demands more successfully than others?

It is important to answer these questions, not only because they provide a deeper understanding of the relationship between institutional complexity and organizational features (Greenwood et al., 2011), but also because they offer novel insight into how organizations should act to achieve greater success in blending pluralistic prescriptions. We believe that looking at this unexplored aspect within the institutional logics approach will deepen our knowledge about the micro-foundations of institutional logics by linking actions and behaviors with organizational strategies and organizational success in managing multiple logics.

To do so, we conducted a comparative case study of three different types of organizations carrying out technology transfer activities in Italy: Technology Transfer Offices (TTOs), University Incubators (UIs), and University-Industry Consortia (UIC). These organizations combined two previously separate institutional logics: an “academic” logic, that is mainly focused on basic research, and a “market” logic, focused on financial returns, that
are connected to applied research and development (Merton & Storer, 1973). As organizations that incorporate diverse logics, TTOs, UIs and UBC all have to handle prescriptions and pressures caused by different norms and rules and, therefore, to face the same problem of institutional complexity. In the context of this study, we analyze how these different organizations respond to multiple logics, shedding light on the different strategies they deploy. More specifically, we want to gain an understanding of how their internal decisions and plan of actions can lead to more or less success in coping with pluralistic demands. We focus on the variation of organizational strategies and the degree of success, with the aim of analyzing how they are related and which combination of organizational actions is more likely to lead to the successful management of institutional complexity.

In answering our research question we made two key contributions. First, we respond to a recent call by Greenwood and colleagues (2011) to empirically confirm that organizations experience institutional complexity to varying degrees. While prior studies have emphasized more episodic “responses” to institutional complexity (Greenwood et al., 2011; Pache & Santos, 2010), we moved beyond and found that the degree of success achieved by the organization in confronting institutional complexity is dependent on the strategies that the organization uses in coping with multiple logics. In finding this, we develop institutional theory by furnishing new insights about institutional complexity.

Second, we give further insight into micro-level action (Hirsch & Lounsbury, 1997) by better understanding how actors’ decisions and actions affect the management of competing institutional expectations. Our findings have general implications for understanding how organizational actions may impact on the way institutional complexity is perceived and institutional logics are managed within the organization. Moreover, as management implications concerns findings could be useful to the organizations’ top management for
better understanding which kind of strategies might be implemented in situations of never ending institutional complexity.

THEORETICAL BACKGROUND

Institutional logics and complexity

Institutional logics, as taken-for-granted, resilient social prescriptions, specify the boundaries of a field, its rules of membership, the role identities and the appropriate organizational forms of its constituent communities (Thornton, 2004; Friedland & Alford, 1991). They are the “broader cultural templates that provide organizational actors with means-ends designations, as well as organizing principles” (Pache & Santos, 2010; see also Friedland & Alford, 1991). Thornton and Ocasio (1999) refer to logics as “the formal and informal rules of action, interaction, and interpretation that guide and constrain decision makers”. If we consider that institutional logics provide social actors with vocabularies of motives and senses of self (Friedland & Alford, 1991), then, they not only direct what social actors want (i.e., interests) and how they are to proceed (i.e., guidelines for action), but also who or what they are (i.e., identity).

So far, the prevailing theoretical conceptualization has linked institutional logics to the concepts of conformity and stability. As we know, organizations try to gain legitimacy by producing and reproducing rules and norms of a single dominant institutional logic, which drives them towards isomorphic responses (Reay & Hinings, 2009; Thornton & Ocasio, 2008). Even when a phenomenon of logic change has been acknowledged (Thornton et al., 2005), it has been presented as a temporary instability, where a shift from one dominant logic to another occurred (Reay & Hinings, 2009). In this sense, scholars, who have focused on changes in logics, have conceptualized them as a replacement circumstance, instead of a situation of incoherence between multiple institutional pressures, and have simplified them as
a period effects, instead of an enduring phenomenon of friction between different groups of individuals within the same organization (Dunn & Jones, 2010).

Although the idea of an institutional logic may be an useful tool for understanding the norms and rules characterizing a particular field, a second phase of the institutional logic approach has appeared in recent years with the idea that organizations can be exposed to different institutional demands at the same time (Greenwood et al., 2011; Kraatz & Block, 2008). Institutional research has shifted attention away from the conception of isomorphic diffusion to develop more coherent approaches to study organizational variation and change, by looking at institutional pluralism and complexity (Marquis & Lounsbury, 2007). In this paper we use the term institutional complexity to refer to situations in which a multiplicity of logics, exerting different pressures and influences, are in play in a particular context.

So, organizations incorporating elements from different institutional logics (Battilana & Dorado, 2010; Pache & Santos, 2012) face the effects of that institutional complexity and “contend with competing external demands and internal identities” (Jay, forthcoming). Considering that multiple logics embodied by the organization are independent, not always compatible, and often in conflict (Friedland & Alford, 1991; Pache & Santos, 2012), organizations face heightened challenges in trying to incorporate these antagonistic practices (Pache & Santos, 2012; Tracey et al., 2011). However, although extant the literature has recognized institutional complexity being a problem for most of the organizations in their attempt to find a proper response, “it can be argued that organizations experience institutional complexity to varying degrees, depending on their formal and informal characteristics” (Greenwood et al., 2011). Therefore, it follows that organizations will differ in their responses to complexity and these responses will differ in their effectiveness.

**Conceptualizations for institutional complexity**
Overall, three main conceptualizations for institutional complexity have been acknowledged in previous literature (Pache & Santos, 2012; Goodrick & Reay, 2011), each of them specifying a different degree of balance among logics. The most unbalanced situation is displayed either where behaviors and actions are entirely guided by one dominant logic (Thornton, 2002), or where a decoupling between normative and operational structure occurs (Bromley & Powell, 2012). In the second situation, long-term tension between multiple logics until one of them becomes the new template (Reay & Hinings, 2005), and a compromise strategy where institutional prescriptions are enacted in a balanced form (Kraatz & Block, 2008; Oliver, 1991), have been observed. For example, Reay and Hinings (2005) explored how Alberta health care system achieved a new form of stability and re-institutionalization, after a period of deep competition, where the government attempted to move the field from a medical professionalism logic to a new business-like health care, and physicians disagreed with this change. Similarly, Meyer and Hammerschmid (2006) explored the shift from a legalistic-bureaucratic logic to a managerial one in the public sector in Austria.

A recent stream of research has highlighted a third conceptualization for institutional complexity, suggesting that “coexisting and competing institutional logics do not always resolve” (Goodrick & Reay, 2011), but might be combined (Greenwood et al., 2011; Battilana & Dorado, 2010). In those situations, diverse logics remains associated with different actors, units, communities, and so on (Greenwood et al., 2010; Lounsbury, 2007), or they enact a combination of activities drawn from multiple logics in order to secure support from the widest range of actors (Pache & Santos, 2012). For example, Battilana and Dorado (2010), as an example of logics combination, in their comparative study of microfinance organizations suggested that to be sustainable organizations have to create a common organizational identity that strikes a balance between the logics they combine. For example, professional work has been analyzed by Dunn and Jones (2010) and Goodrick and Reay (2011) as a context in
which norms and practices appeared to be shaped by multiple institutional norms. The recent paper by Pache and Santos (2012) added a fourth response – selective decoupling – to institutional complexity. This strategy involves a “selective coupling of intact demands drawn from each logics” (Pache & Santos, 2012), which is the result of a purposeful enactment of selected practices among a pool of competing alternatives.

**Institutional complexity and organizational characteristics**

Along with different responses to multiple logics, recent works have also tried to find a relationship between particular organizational characteristics and the way organizations confront institutional complexity. Indeed, the characteristics of the organization can make organizations particularly sensitive to certain logics and less to others (Greenwood et al., 2011). The structural position of an organization in the field (Greenwood et al., 2011), the power and influence that groups with different logics have within an organization, both in terms of ownership and governance (Pache and Santos, 2010; Goodrick & Salancik, 1996), the problem of multiple identities that actors bring from diverse fields within the organization (Battilana & Dorado, 2010) are all aspects that have been stressed in previous studies.

Important reference papers, in this sense, are those by Greenwood and colleagues (2011) and Pache and Santos (2010). The former developed an analytical framework for connecting institutional complexity, field structure, and organizational attributes to final organizational responses. In this framework, field position, structure, ownership/governance, and identity are presumed as filters of how institutional logics are framed and experienced within the organization. Pache and Santos (2010), in a similar vein, proposed a theoretical model of four organizational responses to conflicting institutional demands as a function of the nature of the conflict (i.e., organizations’ goals and means), and the intra-organizational representation of that conflict.
However, we still lack an exhaustive explanation of the phenomenon, especially for different organizations and the different results they obtain in terms of the management of institutional complexity. In this sense, we know that organizational responses to institutional complexity are unlikely to be uniform (Greenwood et al., 2010), but we do not know which kind of decision and actions might be more successful for managing institutional pluralism and, in particular, which strategies allow an organization to be more effective than others in coping with multiple institutional pressures. Examining this stream of literature, it is clear that the link between organizational characteristics, strategies and institutional pluralism is quite close. But, which strategies make an organization more successful than another in responding to institutional complexity? Our study is directed at moving forward the ongoing conversation on institutional complexity, following the above line of research. Strategic choices, as “a unified, comprehensive, and integrated plan designed to ensure that the basic objectives of the enterprise are achieved” (Glueck, 1980), represent the antecedents to the responses to institutional complexity.

As such, our study is motivated by the following research question: what strategies do organizations adopt to deal with institutional complexity and what determine how successful these strategies are in responding to institutional complexity?

**METHODS**

In order to answer our research question, we conducted an inductive multiple case study of organizations dealing with technology transfer between university and industry in Italy. We use a comparative case study approach (Eisenhardt, 1989), in which each case is treated as an independent experiment (Yin, 2003). In order to reduce potential biases associated with single case, our study focused also on variation within cases, taking into account different organizations of the same typology. This allows for a more rigorous
analysis, not only in terms of reliability and richness, but also in terms of theory generalizability (Eisenhardt, 1989).

Specifically, the research setting is composed of those organizations that have been established in Italy as a result of the recent openness towards the exploitation of research results for industrial ends in university-industry collaboration. Considering the important changes occurring in this field, and the multiplicity of interaction forms that have been recently set up by academia and industry, the setting is ideal for addressing our research questions.

**Research Setting**

We studied technology transfer between university and industry in Italy. Technology transfer is a very complex field, where different typologies of organizations and multiple actors are involved. Here, we focus on the following key parties: *university scientists*, who discover new technologies, *industrial managers*, having the task of commercializing university-based technologies, and, specifically, *intermediate organizations*, which serve as liaisons between academic scientists and industry. All six organizations in our sample achieve their goals by bringing into contact academia and industry, in order to transfer and exploit academic results for commercial purposes. Therefore, on one hand, they need to display appropriateness toward a web of referents embedded in a belief system that we refer to here as the *academic logic*. Indeed, they interact with academic researchers and discuss with them their research output and its commercialization. On the other hand, given their reliance on industrial word for the effectiveness of technology transfer process, they need to display appropriateness to industrial partners who are embedded in a *market logic*. For academics, all these organizations represent an alternative and complementary way for raising funds, and a mean to develop applied research. For firms, these organizations are potentially attractive
vehicles to establish in-depth collaboration with university, providing access to state-of-the-art knowledge in specific fields of interest.

Organizations operating in this sector are quite new in Italy, considering that the first significant steps in this direction, in terms of legislation, occurred only in the late 90s. However, the last twenty years have been crucial for the Italian university system as a whole. New reforms, aiming at improving the transfer of research results to industry, have brought important consequences both for university and enterprises. In particular, before the last important reform in 2001, Italy has been the object of important legislative changes, that have tried to instill, within universities, a new culture that is more open towards collaboration and cooperation with industry. The structural changes made to the set of norms and rules governing universities’ activities and public patents right have deeply affected the creation of TTOs (along with the other forms) and resulted in an exponential increase from the mid-2000s. Todays, after almost a decade, we see a variation in the way university and industry interact, both in terms of organizational forms (e.g., TTOs, UIs, and UBC) and strategies deployed. We also observe a variation in the degree of success that those organizations score in managing the different objectives and interests of the two worlds.

**Sampling of organizations**

We rested on a sampling design at two stages. The first step concerned the choice of the organizational types, the second the selection of the organizations belonging to the same type. This process allowed us to account for both variation between and within cases, in order to produce a richer and more accurate theory. As regards the first stage, in order to determine the different types of organizations involved in technology transfer activities in Italy, we have identified, with the help of key informants in the field, two main variables that will drive us in creating a matrix with the most relevant categories.
We decided to focus on three of them and, specifically, on TTOs, UIs and UIC. The choice was mainly driven by two factors: 1) the diffusion of the identified types throughout the country; 2) the easiness of data access. Concerning the second phase, we selected our organizations according to their “geographical location” and their actual involvement in technology transfer activities. Finally, we got three matched pairs, that permitted 1) to replicate cases of the same organizational typology (variation within cases), in order to account of all significant information and improve the generalizability of inducted theory, and 2) to compare the characteristics of the different organizational forms (variation between cases), to explore our theoretical issue.

In terms of choosing respondents, we followed the guidelines given by Lincoln and Guba's (1985) regarding "purposeful sampling”. We first selected informants that would be most able to inform us regarding our theoretical interest (Corley and Gioia, 2004), since they were directly involved in decision-making processes and strategies deployment. Then we asked each informants to suggest other people who would have been useful in giving us information about the issue of interest. In reporting findings below, we will use codes in order to preserve the anonymity of organizations and people.

**Ranking organizations in “more” and “less” successful**

In order to answer to our theoretical questions, we ordered the sampled organizations in “more successful” and “less successful” in dealing with institutional complexity. We asked
our informants, within the organizations, to respond to the following questions: 1) “What is the main goal of this organization?”, 2) “Which kind of measures does the organization use to evaluate its performance?”, and 3) “Do you have an indicator for measuring performance?”. Whereas some organizations aim at widening the patent portfolio, others tried to maximize the number of licenses or the ratio of licenses to patents applications, and others were focused on the number of spin-offs or the number of completed projects. Therefore, even though they all confronted issues associated with multi-logics pressures, specifically they focused on quite different goals that makes it difficult to comparison based on objective measures. Moreover, considering that those organizations add value to the dynamics of technology transfer through very difficult quantifiable activities, they should not be evaluated only according to tangible and measurable output.

For these reasons, we decided to proceed with another approach, based on the evaluation that academic researchers and industrial CEOs gave about their experience with the sampled organizations, and on the opinion of the employees themselves. In this sense, we based the ranking of “more” and “less” successful organizations in confronting institutional complexity, using responses we got from semi-structured questions. In particular, as concerned academics and CEOs, we focused the attention on three specific issues: 1) satisfaction about previous experiences with those organizations, 2) the likelihood to address those organizations for future projects, and 3) the extent to which they have maintained a good relationship with the counterparty. Granted that a higher satisfaction, a greater likelihood, and a better quality of the relationship constituted the result of a higher organizational success in dealing with institutional complexity, to assess these issues we concentrated upon phrases like “I was really pleased about the result…”, “I really believe they [the organizations employees] did a good job”, “I reached so unexpected results…”, “I think their help will be useful in other occasions…”, and “They gave me an hand in
understanding how approaching the other part…”.

Regarding organizations informants, we tried to get their opinion in terms of success reached in managing multiple institutional logics. Specifically, we focused on responses they gave to questions like “Do you perceive your organization being a point of reference in terms of technology transfer for academics and CEOs?”, and “To what degree do you perceive your stakeholders (i.e., academics and CEOs) being satisfied about the work you carried on?”. Then, we cross-checked data obtained from these two sources in order to rank all the sampled organizations. The more the satisfaction of academic and industrial stakeholders, the higher the will to turn to those organizations for future projects and the quality of the relation undertaken with the other party, the more successful the organization was in dealing with different prescriptions. At the same time, the greater the employees’ opinion to be considered a reference point by academics and CEOs, the more the organization may be considered successful with the management of institutional complexity. In the end, we obtained three matched pairs, each composed by one “more” and one “less” successful organization in confronting multiple logics.

Data Collection

We conducted the data collection process in three different phases. The first consisted of an exploratory stage (end of 2011), where we conducted interviews with some key informants of our organizations, in order to better understand the internal functioning, the different tasks held by employees and the real clash of different cultures and interests they experience in dealing with their stakeholders. This phase was fundamental for the construction of our interview protocol. We got in total 5 interviews, each of them lasting on average 45 minutes. All of them were taped in the original language (Italian) and transcribed.
At the end of this process, we were completely sure that the setting was appropriate for exploring our theoretical interest.

The second phase (from January to February, 2012) was spent in collecting archival materials with the aim to develop a more in-depth understanding of technology transfer activities, the interaction between university and industry, and the change that occurred at the field level in terms of Italian and European legislation. At this stage, we collected research articles, texts of Italian and European laws, books, as well as documents produced by the organizations and electronic documentation.

During the third step (from January to August, 2012), we proceeded with the submission of the semi-structured interview protocol to our informants. Our sample of respondents included not only the employees of the organizations, but also academic researchers, executives and CEOs interacting with those organizations, since they were the main stakeholders.

Taking into account the different involvement of our respondents in technology transfer activities, we relied upon two separate interview protocols, one for academics and CEOs as people actively participating in the process but not employees of the selected organizations, and the other specifically designed for TTOs, UIC and UIs employees. Both the protocols were refined and adjusted over time according to new emerging aspects and to account for data saturation. Finally, we gathered 48 one-to-one interviews. With the exception of two skype interviews, interviews took place in informants’ offices and lasted between 30 and 65 minutes. They were organized around a number of main areas. As concerns the protocol for the organizations, we got the following sections: organizational history, organizational structure, organizational strategy, performance, stakeholders and perception of
logics. In contrast, the protocol submitted to academics and CEOs was organized around the following domains: job characteristics, previous collaboration, experiences with the sampled organizations, and incentives.

Data Analysis

We coded interviews and documents inductively, with the aim of finding significant relationships between data, emerging themes, and existing literature. Data analysis consisted of several stages.

During the first stage, we wanted to better characterize our empirical setting in terms of the logics it included. We coded the passages where informants emphasized the difference between academic and industrial world following the macro issues that, according to previous literature, deserved attention (Merton & Storer, 1973), such as goals, organization of work, identity, and mindset. In particular, we organized and summarized the coding of these data around main themes drawn from Thornton, Ocasio and Lounsbury (2012) that seemed recurrent in the discussion with our informants and the most important in specifying the differences between the two fields. This corroborated the idea that organizations dealing with technology transfer activities are really embedded in multiple prescriptions. In Table 6 we report the specification of these results.

During the second step, we coded data with the aim to identify the organizational strategies deployed by the different typologies of organizations. The analysis began with an open coding process where we tried to abstract from the context and construct general
meanings. We used in-vivo (Glaser & Strauss, 1967; Strauss & Corbin, 1998) or first order (Van Maanen, 1979) codes, that is lexicon used by the respondents, or an evocative phase when in-vivo code was unusable. This open coding was over time refined, since we read and reread the transcripts, creating new, more precise, codes and adjusting the existing ones. Through a comparative analysis of the text, the objective of this initial phase was to give the same code to an event, act or happening which shares common characteristics. We started to code each mention with respect to how the organization organizes itself internally and how it interacts with the external environment. So, sentences like “different background and previous experiences” (I1), “hybrid competences” (U1), “people with PhD…an important resource” (T1), and “having specific experiences help to bridge the two contexts” (T2) all called to mind the broader idea that previous experience make the difference in mediating between academia and industry.

Then, we began to search for relationships among the existing codes, in order to group concepts under a more abstract higher order themes and construct overarching dimensions. All the previous sentences were grouped, for example, under the theoretical category “employing boundary spanners”. The overall process was an analytic procedure through which we tried to let emerge theoretical relationships until interviews failed to reveal new relationships. In sum, we proceeded from “organizational categories” (Maxwell, 1998), which represent the broad subjects around which we organize our interviews, to substantive categories, that constitute the first, descriptive segmentation of data, and, finally, to theoretical categories, which have been used to develop a more general and abstract framework for outlining conclusions.

We used matrices to organize data (Miles & Huberman, 1994), in order to facilitate the analysis during the identification of patterns and minimize the likelihood of making a mistake in translating information. Moreover, throughout the analysis we triangulated interviews with
archival documents, so as to avoid possible bias during data analysis and to ensure a deeper understanding and reliability of results (Maxwell, 1996). Finally, to enhance coding reliability, we asked an external researcher, fluent in our informants’ native language, to conduct a review of the process we followed to code data and of the products we obtained in terms of theoretical categories. This researcher, in going through interview protocols, documents, interviews and coding schemes, provided important help in resolving conceptual discrepancies and ambiguities and in assessing whether our conclusions were plausible (Lincoln & Guba, 1985). The final data structure is presented in Table 7.

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**FINDINGS**

The results below focus on the strategies that we identified through our coding (see Table 7), as those strategies that have a positive impact on the results that organizations achieved in dealing with the pressures of multiple logics. We show below the mechanisms of their functioning within the organizations.

*Employing boundary spanners*

A common characteristic of the more successful organizations of our sample, was the employment of personnel with the specific aim of enhancing the quality of communication between parties. Specifically, people maintaining relationships with academics and industrial managers, or playing a key role in decision-making processes, often had a significant experience within academia, in terms of research projects, and previous industrial experience. Some of them even had a PhD and were hence able to act as “boundary spanners” (Aldrich & Herker, 1977; Fennel & Alexander, 1987) between the university and business worlds.

For instance, in EPSILON, the manager of the most important project had 15-years-old experience in a multinational company for 15 years after his graduation, and then decided
to spend two years at New York University and at Stanford University as a senior research fellow and teaching assistant. After that, he came back to the industrial world in a multinational company. This combination of experience, education, and specific competences made him particularly able to manage the relationship between academics and CEOs and to make the communication more comprehensible between the two parties. Also the operations manager had 1.5-years experience within academia before joining EPSILON. A statement by the interview we got from him shows how this hybrid experience is considered valuable for the work they daily do:

“the work we do is very tricky, especially for the kind of relationships we have. If you fail to communicate with our stakeholders [academics and CEOs], it is over. The lack to have people with experience in both contexts [university and business] lies just in trying to avoid this error” (U2).

The role that boundary spanners had in managing logics compatibility is fundamental in two main aspects. First, they acted as a bridge between the two worlds, trying to emphasize the potential value that demands and objectives of each of them might have for the other side. In this sense, they operated as facilitators in combining the more akin aspects, in order to find the best pattern for both the parties. But, they also had an important impact on minimizing incomprehension and frictions between academic researchers and CEOs. For example, in EPSILON, the manager with the hybrid background played a key role when communication between industrial partner interested in the project and the academic researcher supervising it was required. In particular, he tried to smooth all the formal, but not substantial, difficulties, softening the point of view of each partner and broadening their understand of the other side’s interests. He also tried to let parties think in terms of complementary instead of antithetical positions. The manager told us:

“My role, here in EPSILON, is, both to act as “shepherd” for researchers not
accustomed to deal with concepts such as “budget”, “operating cost”, and to guarantee that things have a deeper value than for a single enterprise. I always try to lead academics straight to the point, with a problem-solving approach, and CEOs to think in a more open way, however highlighting the benefit that each of them may obtain from our activities” (U3)

As regards the organizations defined as less successful, we noted a lack of attention to the issue of boundary spanners. For example, none of the employees had a PhD or a significant period spent within the academia after his/her graduation. Summarized as a proposition:

Proposition 1: As regards organizations confronting highly uncertain activities with a high cognitive content, the likelihood to achieve a higher success in dealing with institutional complexity, is greater for those employing boundary spanner people in key roles envisaging a mediation between different institutional fields

Mirroring institutional demands

We observed that the more successful organizations had a more defined division of work, with clear-cut tasks for each area or group. For instance, in ALFA, the general manager said:

“The unit is divided into two main offices: protection and exploitation. I’m the head of both. We have people with a hard scientific background (biology, chemistry), useful for evaluating patent applications, and people with a legal background, needed during the contractual phase. Our real strength is to put together all these skills” (T3)

In addition to set clear reference points for academics and CEOs, these organizations chose the tasks of each employee so to maximize the degree of success of the relationship undertaken with parties. This aspect meant that both sides were more likely to be pleased with the work done by the organization and, therefore, to have more persistence in going ahead
with the relation with the other party. An industrial manager explained the issue:

“having defined reference point is important to minimize response time and misunderstanding. If you have a specific problem and you know that you can rely on someone skilled on that, the reliability of the entire process increases and you are more incentivized to find a shared solution. In ALFA, I found that” (C2).

A greater specialization of the process connecting academics and industrial managers, increased the quality of the service provided by the organization. So, while in ALFA, T4 dealt only with patents and requests on this issue, in BETA, for example, T5 dealt with patents, start-up and other activities. This higher specialization of ALFA facilitated a feeling of trust and collaboration by academics and CEOs, therefore reducing the transaction costs related to the negotiation and increasing the likelihood of managing successfully the relationship.

Moreover, this greater specialization played several roles in managing logics compatibility. It granted to academics and CEOs the chance to deal with people having specific competences on issues of interest. We realized that this characteristic was very appreciated by both parties. Indeed, the division of work ensured to face problems in a deeper way (“the qualification of those people on specific issues, make me confident of the suggestions they give” (C3 about EPSILON)), to understand requirements and demands of both sides and deal better with them (“they make me feel pretty understood. I perceived that they have enough familiarity with the matter” (C4 about GAMMA)), and to recognize possible points of frictions and smooth them (“the experience they accumulate on specific issues is important for weakening the divergences and strengthening the possible common interests” (C5 about ALFA)). Specifically, we found that the more successful organizations mirror their environment, in the sense that they envisaged specific roles for different people, according to the logic they have to cope with. In sum, they strategically provided different figures of reference for academics and CEOs, with a clear-cut division of work, and some key
boundary spanners people, bridging among them and final stakeholders. Summarized as a proposition:

**Proposition 2:** As regards organizations confronting highly uncertain activities with a high cognitive content, communicative flow being equal, the likelihood to obtain a higher success in dealing with multi-logics pressures is greater for those mirroring the demands they cope with in terms of assignment of tasks and work division.

**Proposition 3:** As regards organizations confronting highly uncertain activities with a high cognitive content, the likelihood to obtain a higher success in dealing with multi-logics pressures is greater for those mixing some key boundary spanner figures with some specialized roles.

*Buffering multiple logics, instead of just linking them*

ALFA and GAMMA provided a significant illustration about the “buffering” strategy. In ALFA, they really believed that being dynamic and uncovering opportunities for parties is a good strategy to achieve better results for collaboration and higher satisfaction. These interesting opportunities might be European funding announcements, regional funds for collaborative research, etc., and are really linked to the different stages of the process. In doing so, ALFA had to be deeply involved in each relationship between academics and industry, acting as a buffer whenever an appreciation of the research is required, or an in-depth analysis of industrial application is needed by the researcher. An employee said that “each party always tries to undervalue what the other does or proposes” (T6), and for this reason “we always have to fight against this idea, by providing clear and meaningful evidences” (T6). Academic researchers, for example, usually do not think about the possible industrial applications of their research, since patenting is not in their priority. So the risk of compromising research results for commercial application is high. But, if the research is monitored throughout the process of collaboration, then, “you can achieve results that would
otherwise be impossible” (T6). This means that the organization has to be ceaselessly in contact with both parties, and, in each phase, understand what is worth stressing and what not. An employee in ALFA said:

“when we license a patent, we have always to give a kind of priority to the different interests at stake. It is like trying to find the best solution starting from different needs. For doing that we must prioritize activities, objectives, interests, and so on, according to the different stages” (T3)

So, the important aspect, connected to the behavior of being always proactive and dynamic, is that the more successful organizations managed the tension between the two logics by sequentially attending to the most pressing issue at hand. In particular, ALFA and GAMMA sought to achieve what each part would not reach alone, through the prioritization of certain goals in some phases and other goals in other phases. This required a high capability of communication. This behavior allowed to damp down on discussions, which had a negative impact on the relationship, and to ensure the achievement of a good agreement.

In this sense those organizations worked as a “buffer” between the two logics, keeping alive diversity, but fostering collaboration by minimizing difficulties coming from different points of view and highlighting their strong points. They work for mediating all the phases of the process, promoting the collaboration, minimizing incomprehension, emphasizing skills and capabilities and leveraging them, in order to make relationship milder and enhance the value of the final outcome.

We perceived that this “buffering” strategy made stakeholders more pleased about the overall result, with better feedback in terms of quality of the relationship and a stronger belief to undertake other collaborations in the future. In this sense, we can say that this represents a way to stay exactly in the middle between the two parties, effectively promoting their collaboration, with the aim to reduce conflict and enhance satisfaction, and also to directly
increase the organization reputation.

On the contrary, the behavior observed in the less successful organizations was much more detached and the effort was just in trying to link the two logics, letting them communicate by themselves. Speaking in terms of plurality and synergy, these organizations wish to preserve a high degree of the former, by favoring the aggregation of logics (i.e., safeguarding the different interests during the collaboration), but, practically, they achieve a lower degree of synergy between them, recurring to a more detached approach.

**Proposition 4:** As regards organizations confronting highly uncertain activities with a high cognitive content, the likelihood of success in responding to institutional complexity is greater for those buffering multiple logics instead of those linking them

**DISCUSSION AND CONCLUSIONS**

Institutional pluralism and complexity have been recognized by institutional scholars to be a standard condition of organizational life in an increasing number of fields (Pache & Santos, 2012; Greenwood et al., 2011). Whereas most of the recent works using an institutional logics approach have focused on particular responses to institutional complexity, none of them has addressed the problem of understanding which response may be considered more successful in dealing with that phenomenon. Our study brings new insights on this issue, trying to connect the organizational dynamics, with strategic actions and the degree of success achieved in managing complexity. We believe that our findings contribute to existing literature in multiple ways.

**Intra-organizational dynamics**

Following an organizational point of view, we think that our analysis gave us the possibility to better understand the phenomenon of multiple logics coexistence and the actions that organizations deploy to deal with it. The condition of institutional complexity confronted
by organizations is neither straightforward nor simple. Institutional theory, which predicted passive organizational compliance to institutional demands, has been often criticized for its lack of an explicit and coherent theory of action (Pache & Santos, 2010; DiMaggio & Powell, 1991). Instead, our results suggest that organizational decisions and actions have a powerful effect on how organizations respond to the different interests and objectives coming from diverse stakeholders. This is a noteworthy point, if we consider that existing literature has often focused on the environmental, rather than internal, determinants of how organizations respond to various institutional mandates (Greenwood et al., 2011; Pache & Santos, 2010). Our study suggests that to really appreciate the relationship between institutional complexity and organizational reaction, it is critical to delve into the organization and explore how actors perceive and react to those forces.

Our analysis of organizational dynamics drove us to what we consider the most important contribution of the study. In particular, we found that not all the organizations responded in the same way to the same problem. Indeed, institutional complexity was perceived differently by organizations and different strategies were considered significant to respond to it. Thus, an organization’s response to a given institutional circumstance is not necessarily constant: it may change dramatically with respect to the organization, even if the situation itself is the same. In this sense, the analysis of organizational dynamics allowed us, on one hand, to dispel the myth of conformity and isomorphism in institutional theory and, on the other hand, to give insights about the diverse approach that organizations use in confronting multi-logics pressure. Our findings suggest that organizations might lessen the “conflict” experienced with institutional complexity by developing some particular strategies. Having boundary spanners, mirroring institutional demands, and acting as a buffer between the two logics are the strategic actions that made a difference in the way in which organizations fared when faced with different institutional pressures.
Previous literature has explored the influence of specific organizational characteristics on institutional complexity including structure, field position, governance, ownership and identity (Greenwood et al., 2011; Pache & Santos, 2010), but we did not have an understanding of how organizational dynamics may make such complexity more or less acute (Greenwood et al., 2011). These organizational outcomes appear to reflect differences in the organization’s ability to perceive the points of contrast, work on them and leverage the internal competences to find the most appropriate response. We also find that particular strategies can enable organizations to please institutional referents and thus obtain their support.

**Micro-dynamics of institutional theory**

For almost two decades, scholars have stressed the need to make the micro-foundations of institutional theory more explicit (DiMaggio & Powell, 1991; Zucker, 1991), but there has been limited progress in this effort (Powell & Colyvas, 2008). The relationship between micro events, in which participants act in situated and patterned ways, and macro-level equilibrium has been recognized to be an important one (Dacin et al., 2010). In particular, in this paper, we help to bring some insights about the micro-level dynamics of institutional theory. Indeed, our study shows that the way organizational actors experience different institutional logics is not a direct reflection of how an institution appears at the macro level. Rather, institutional logics are refracted through individual experience and interaction. In other words, they are situated and interpreted at local levels.

Specifically, our findings highlight that actors’ decisions and actions deeply affect the way in which complexity is perceived, experienced and managed. As an informant said, “we [the employees] do not have the same perception of things (...) it is just interacting with each other that we gain a more uniform idea and a clearer direction” (U9). The decision to engage in actions, all directed to manage institutional complexity, such as employing particular
figures and investing in specific competences, is an obvious example of how micro-dynamics within the organization and institutions at an higher level are connected. It was just the attention we paid to both less powerful members of organizations and managers, that enabled us to grab the importance of such micro-dynamics for the phenomenon of institutional complexity, that institutional literature has recognized to be present both at the organizational and field level.

We learned from our data that members of organizations engage in daily practices, deal with different prescriptions and demands, discover puzzles or anomalies and develop answers to institutional complexity. We did not have data to explore in depth the decision-making process within organizations, but our findings clearly show that the different strategies that organizations deploy to confront multi-logics pressures are the result of actors’ interaction, perceptions, decisions and actions. In sum, we believe that our findings disclose that the management of institutional complexity is rooted in micro events. We therefore think that we have been able, in a sense, to return to the “coalface” of institutional theory in order to shed light on “the link between institutions and the person” (Powell & Colyvas, 2008).

**Limitations and future research**

The most important issue connected to case study research is the degree to which findings are generalizable to other contexts and to a broader sample. However, the use of a comparative, multiple case study of six organizations represented a stronger point in this sense. We believe that our findings have applicability beyond this context, that we consider only a case among a lot of others. In fact, we sampled our organizations just looking at if they were or not involved in confronting a situation of institutional complexity and not at the content of the logics they had to deal with. For this reason, our findings may apply more broadly to other organizations subject to institutional complexity, and can be considered a result of a study that goes beyond the academic and market logics we took into account. It
would be interesting to test and refine the results gained here in other contexts to fully establish their validity and generalizability.

As regards future research, it would be interesting to analyze the decision-making process that allow an organization to successfully confront institutional complexity. We provided insights about the final strategies that made the difference in dealing with such situation, but we still lack a knowledge of the whole process that lead an organization to strategically react in a way instead of another. An example could be that of studying how organizational leaders’ competences, skills, and capabilities affect the organization’s ability to deploy some particular strategies and to respond more or less successfully to institutional complexity. This is suggestive of a more bottoms-up approach.
### Table 1. Typologies of organizations

<table>
<thead>
<tr>
<th>Field of origin</th>
<th>One</th>
<th>Multiple</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Positioning</strong></td>
<td>Technology Transfer Offices</td>
<td>Joint Research Labs</td>
</tr>
<tr>
<td><strong>Internal</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>External</strong></td>
<td>University Incubators</td>
<td>University-Industry Consortia</td>
</tr>
</tbody>
</table>
Table 2. Description of cases

<table>
<thead>
<tr>
<th>Cases</th>
<th>TTOs</th>
<th>UIs</th>
<th>UIC</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>ALFA</td>
<td>BETA</td>
<td>GAMMA</td>
</tr>
<tr>
<td>Founding origins</td>
<td>University with an extended mission</td>
<td>University with an extended mission</td>
<td>University and Bank Foundation</td>
</tr>
<tr>
<td>Positioning</td>
<td>Within the university</td>
<td>Within the university</td>
<td>Independent</td>
</tr>
<tr>
<td>Staff</td>
<td>6</td>
<td>4</td>
<td>3</td>
</tr>
<tr>
<td>Activity</td>
<td>Exploiting research results</td>
<td>Exploiting research results</td>
<td>Facilitating spin-offs creation and growth</td>
</tr>
</tbody>
</table>

1 These Foundations are private, non-profit, autonomous organizations established in Italy in the early nineties, as a result of the privatization of the Savings banks and the Monte banking group.
Table 3. More and less successful organizations

<table>
<thead>
<tr>
<th>TTOs</th>
<th>UIs</th>
<th>UBC</th>
</tr>
</thead>
<tbody>
<tr>
<td>More successful</td>
<td>ALFA</td>
<td>GAMMA</td>
</tr>
<tr>
<td>Less successful</td>
<td>BETA</td>
<td>DELTA</td>
</tr>
</tbody>
</table>
Table 4. Descriptions of interviews

<table>
<thead>
<tr>
<th>Interviewees</th>
<th>Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>5 + 41</td>
</tr>
<tr>
<td>Female</td>
<td>7</td>
</tr>
<tr>
<td>Preliminary interviews</td>
<td>5</td>
</tr>
<tr>
<td>Focused interviews</td>
<td>48</td>
</tr>
<tr>
<td>Academic researchers</td>
<td>11</td>
</tr>
<tr>
<td>Academic executive</td>
<td>5</td>
</tr>
<tr>
<td>CEOs</td>
<td>11</td>
</tr>
<tr>
<td>TTOs</td>
<td>8</td>
</tr>
<tr>
<td>UIs</td>
<td>3</td>
</tr>
<tr>
<td>UBC</td>
<td>10</td>
</tr>
</tbody>
</table>
Table 5. Typology of data and their use

<table>
<thead>
<tr>
<th>Sources</th>
<th>Typology of data</th>
<th>Data use</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Interviews</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Preliminary interviews</em> (5) with top managers to investigate organizations’ history and internal functioning</td>
<td>Familiarize with the organizational contexts</td>
<td>Identify informants for focused interviews</td>
</tr>
<tr>
<td><em>Semi-structured interviews</em> (5) with academic executive</td>
<td>Go in depth in exploring changes within the academic context</td>
<td></td>
</tr>
<tr>
<td><em>Semi-structured interviews</em> (21) with organizations’ informants</td>
<td>Go in depth in exploring work processes and organizational strategies</td>
<td>Collect perceptions about the degree of success reached by the organizations in dealing with multiple logics</td>
</tr>
<tr>
<td><em>Semi-structured interviews</em> (22) with academic researchers and industrial managers to identify their objectives and interests and their opinion about the organizations</td>
<td>Identify the characteristics of the different institutional logics</td>
<td>Gather opinions and perceptions about the degree of success that the organizations achieved in confronting institutional complexity</td>
</tr>
<tr>
<td><strong>Archival materials</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td><em>Organization-related documents about:</em> organization chart, general data on projects, activities carried on, mission</td>
<td>Triangulate data and support information emerging from interviews</td>
<td></td>
</tr>
<tr>
<td><em>E-mails exchange</em> with top managers of the organizations</td>
<td>Refine information collected with interviews, have further details and triangulate data</td>
<td></td>
</tr>
<tr>
<td>Characteristics</td>
<td>Academic logic</td>
<td>Market logic</td>
</tr>
<tr>
<td>-----------------</td>
<td>---------------</td>
<td>--------------</td>
</tr>
<tr>
<td><strong>Goal</strong></td>
<td>Basic research for publications</td>
<td>Innovate for competitive advantage and longer-term financial payoffs</td>
</tr>
<tr>
<td><strong>Source of legitimacy</strong></td>
<td>Personal expertise</td>
<td>Market position of the firm</td>
</tr>
<tr>
<td><strong>Source of authority</strong></td>
<td>Faceless</td>
<td>Top management</td>
</tr>
<tr>
<td><strong>Source of identity</strong></td>
<td>Personal reputation</td>
<td>Firm reputation</td>
</tr>
<tr>
<td><strong>Basis of attention</strong></td>
<td>Status in academia</td>
<td>Status in hierarchy</td>
</tr>
<tr>
<td><strong>Basis of strategy</strong></td>
<td>Increase personal reputation</td>
<td>Increase profits Build competitive position</td>
</tr>
</tbody>
</table>
Table 7. Data supporting the emergence of organizational strategies

<table>
<thead>
<tr>
<th>Theoretical categories</th>
<th>Representative quotations</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Employing boundary spanners</strong></td>
<td>“I think that my previous experience in the private sector represents an important asset for going straight to the point. The process of mediation between the two parties seems to be less difficult and complex” (I1)</td>
</tr>
<tr>
<td></td>
<td>“People with PhD represent for us an important resource: their technical background enables them to better grasp specific issues and connect the different pieces of the problem” (T1)</td>
</tr>
<tr>
<td><strong>Mirroring different demands</strong></td>
<td>“From the very beginning, we communicate to our stakeholders the persons to whom they have to make reference for each specific problem. So Elena deals with patents, Andrea with licenses, Francesca with all contracts, about legal aspects, (...)” (T2)</td>
</tr>
<tr>
<td></td>
<td>“If you have a specific problem and you know that you can rely on someone skilled on that, the reliability of the entire process increase and you are more incentivized to find a shared [with academic researchers] solution” (C3)</td>
</tr>
<tr>
<td><strong>Buffering multiple logics</strong></td>
<td>“When an academic and an industrial manager meet, it’s always a problem of point of view. We have to bridge their positions, without make a dent in their diversity. The effort is in leveraging one or another competence or point of view, according to the situation, in order to minimize conflict” (U1)</td>
</tr>
<tr>
<td></td>
<td>“Leveraging abilities and minimize conflict are our key priorities. We reach the result by always acting as a “buffer” between the two positions…this requires a very active role during all the process” (T3)</td>
</tr>
<tr>
<td><strong>Linking multiple logics</strong></td>
<td>“We always try to achieve parity between stakeholders’ interests. We work to reach a sort of compromise among their different objectives. But, often, we fail to reach an agreement because they stand firm on their own positions and we can’t avoid conflict” (I2)</td>
</tr>
<tr>
<td></td>
<td>“We really believe on face-to-face communication between parties: this allows them to confront directly on the key issues, even though it often results in strong misunderstanding, that are difficult for us to manage” (UI: Paulina)</td>
</tr>
</tbody>
</table>
REFERENCES


