

## **Institutional Logics as Strategic Resources**

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## **Institutional Logics as Strategic Resources**

### **Abstract**

We propose that institutional logics are resources organizations use to leverage their strategic choices. We show that firms with an awareness of a larger repertoire of available logics, expressed by a larger stock of competences and a broader industrial scope, and with a favorable opportunity set as expressed by status are more likely to add an institutional logic to their repertoire. We also find evidence that a larger stock of competences and a broader industrial scope explain why firms abandon their original institutional logic and become purist in a new logic. We examine our hypotheses in the French industrial design industry from 1989 to 2003 in which a managerialist logic emerged and prevailed along with the pre-existing institutional logics of modernism and formalism. Our findings contribute to theory on the relationship between organizations' strategy and institutional change and partially address the paradox of why high-status actors play a key role in triggering institutional change when such change is likely to undermine the very basis of their social position and advantage

The institutional logics that compose society are available to organizations as a basis for action (Friedland and Alford, 1991). When Google endorsed the open source movement by entering the Open Handset Alliance in 2007, the company adopted a strategy that contributed to make it one of the most innovative and successful players in the industry. In advancing the cause of open source, Google also contributed to change the rules of the game applying to all its competitors. Microsoft, whose CEO once said that the open source emblem Linux was ‘a cancer’<sup>1</sup>, finally in the summer of 2008 adapted its discourse by starting to advocate open source strategies. As a result, the market logic, once hegemonic in the software industry now coexists with the community logic of open source and Microsoft has since appeared as lagging behind Google in the latter.

As the example of Google suggests, endorsing new (or marginal) institutional logics can be a powerful way for firms to shake up established competitive positions in an industry (Durand and Jourdan, 2012). For example, when independent radio stations in the U.S. started producing cheap quiz shows and playing recorded music, they increased competitive pressures for the network stations, which had to progressively abandon expensive live shows (Salancik et al., 1991). Durable competitive advantages can ensue when competitors may be hesitant to imitate firms venturing away from established ways of doing business; for instance, Jonsson and Régner (2009) show that Swedish mutual funds that broke away from the dominant logic of active fund management were imitated more slowly than other funds. The case of Google or the example of French Haute Cuisine (Durand, Rao, Monin, 2007) also reveals that firms need not reject the old while embracing the new. While supporting open source initiatives, Google remained faithful to the market logic of proprietary software, including its core business technology – the search algorithm. However, the firm added the open source logic to its repertoire of strategic action,

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<sup>1</sup> Interview with the Chicago Sun-Times, June 1<sup>st</sup>, 2001.

supporting open source projects such as Android or Chrome, but did not attempt to blend the two logics, which the company has so far kept compartmentalized (Pache & Santos, 2010). French restaurants could innovate concurrently in one culinary logic (tradition) or across logics by combining and innovating in the new and upcoming Nouvelle Cuisine logic (Durand et al, 2007).

The goal of this paper is to shed light on cases where firms use institutional logics as strategic resources. Existing accounts of logics diffusing at the field or industry level (Rao et al 2003; Thornton and Ocasio, 1999) devote little attention to firm-level strategic action and do not account for the instances where firms add logics rather than substitute them. Although studies of institutional plurality reveal that unresolved tensions contribute to the maintenance of distinct logics at a macro level (Dunn and Jones, 2010) and suggest ways through which individuals may manage such tensions at the micro level (Battilana and Dorado, 2010; Reay and Hinings, 2009), little is known about how firms take positions in the institutional space by embracing more than one logic, and the consequences of this on their performance.

We posit that, while the availability of new logics in the institutional environment opens opportunities for firms to make strategic choices, such choices must be understood as being deeply embedded in prevalent institutional logics that shape cognition and behavior in the industry. Based on this premise, we argue that firms face the double choice of including a new logic to their identity and in becoming a purist in that new logic by abandoning their original institutional logic. The first choice relates to the addition of a new logic into their identity repertoire. As their attention is focused on issues consistent with their own logic and driven away from inconsistent cues, firm decision makers will have a hard time perceiving, understanding and conceptualizing new logics; for instance, giving code away for free (community logic) was not a conceivable option for decades in the software industry when copyright protection was

considered a cornerstone of firm strategies (market logic). We propose that a firm's awareness to new institutional logics will be related to its competence base and its scope of operation. In addition, depending on their opportunity set as represented by their status, firms may also opt to add a new logic or not (Adut, 2005; Phillips and Zuckerman, 2001). The second choice, becoming a purist in the new logic, boils down to the abandonment of a pre-existing logic. The same factors, awareness as expressed by competence and specialization and opportunity set expressed by status position would lead some firms to dis-identify with their original logics.

We test this model using empirical evidence from the industrial design industry in France (1989-2003). Industrial design is an appealing context to conduct our study because it exists at the interface of institutions and organizations. Informed by science and art, it evokes the tutelary representations of technique and aesthetics (Lucie-Smith, 1983; De Noblet, 1988; Guillen, 2006) expressed in the institutional logics: *modernism* (technique) and *formalism* (aesthetics). *Managerialism*, a late comer in France, posed a challenge to design agencies: lack of awareness of alternative logics, the possibility of adding this new logic to their repertoire, and that of abandoning their original logic in favor of an exclusive focus on managerialism. Over a 14-year period, we tracked the institutional strategic choices made by 180 design agencies.

In the late 1980s, modernism predominated in French design agencies; however, by the early 2000s, managerialism became the most popular logic, indicating that design agencies added managerialism to their repertoire and, in some cases, dropped their traditional logic. We explore under which conditions the strategic dynamics of institutional logics occurred, addressing calls to further integrate strategic decisions, organizations' performance, and institutional theory (Durand, 2012; Ingram and Silverman, 2002; Thornton et al, 2012 : 182).

## THE LOGICS OF INDUSTRIAL DESIGN<sup>2</sup>

Inspired by a conception of society as an inter-institutional system (Friedland and Alford, 1991), we conceive of professional fields as connected and interpenetrated by the structural, normative, and symbolic dimensions of broader institutional values that institutional logics capture and render available to organizations. Institutional logics are the socially constructed assumptions, values, beliefs, and rules that guide organizational actions and are characterized by organizational identity, legitimacy, authority structures, mission, focus of attention, strategy, logic of investment, governance, and economic orientation (Thornton, 2002; 2004). Institutional logics sculpt actors' cognitions and structure actors' choices (Thornton and Ocasio, 1999; 2008). Neo-institutional research shows how organizations position themselves vis-à-vis institutional logics, which they demonstrate through their mission statements and documents produced for their audiences (Suddaby and Greenwood, 2005; Thornton, Jones, and Kury, 2005). With this in mind, we explored how industrial design emerged as a profession and industry in France over the past decades.

The International Council of Societies of Industrial Design (ICSID) defines design as “a creative activity whose aim is to establish the multi-faceted qualities of objects, processes, services and their systems in whole life-cycles. Design is the central factor of innovative humanization of technologies and the crucial factor of cultural and economic exchange.” Therefore, references to technique, aesthetics, and business in the design industry echo higher-order realities of science, spirituality, or market. Briefly stated, in our case, as in many creative and cultural activities, the three institutional logics we observe at the industry level (Szostak, 2006) parallel higher-order institutional sectors (Thornton, 2002; Thornton et al., 2005; Thornton

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<sup>2</sup> This section refers to interviews done in France and in Montréal (see “Methods” section and Appendix 1).

and Ocasio, 2008; Jones and Livne-Tarandach, 2008). Flaman (2006:14-15) theorizes that design emanates from exact sciences (e.g., physics, engineering), sciences of spirit (e.g., aesthetics, anthropology), and commercial sciences (e.g., management, marketing). Paralleling this typology, modernism presents industrial design as rooted in science, engineering, and technique. Formalism, in a reaction against modernism, associates design with spirituality and aesthetics, while managerialism portrays design as favoring efficiency and exchange. Table 1 describes the main dimensions of the three ideal-types of institutional logics.<sup>3</sup>

*Insert Table 1 about here*

In design, the modernist logic stems from the influential Art and Architecture of German *Bauhaus* (1919-1933) (Guidot, 2000). *Modernism* is based on rational and scientific concepts (Whitford, 1984), whereby “form follows function.” In architecture as well, and prior to design, the trilogy “unity, order, and purity” are the guiding principles of modernist design (Guillen, 2006,:12), for which, according to Mies van der Rohe, “less is more.” Modernism defends simplicity, precision, regularity, and functionality, what Guillèn calls “the taylorized beauty of the mechanical.” For these reasons, modernism has been accused of being antitraditional, antiromantic, technique-based, and futurist. Above all, modernism characterizes the movement toward a rapprochement between designers as engineers and technicians, an elaboration of a legitimate profession, and a distancing from the previous model of designers trained, along with painters and sculptors, as artists in Beaux-Art schools. The creative process strives for universality, as did Charles and Ray Eames with the DSS chair in 1948, or Rams and Fisher with

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<sup>3</sup>Prior works used ideal-typical definitions of institutional logics (Thornton, 2002; Thornton and Ocasio, 1999, 2008; Thornton et al., 2005). Ideal-types are categorization tools that reflect and theorize on reality and are “a method of interpretative analysis for understanding the meaning that actors invest their actions with” (Thornton and Ocasio, 2008 :110). Ideal-types are not descriptive of a reality or field per se but representations that associate a series of dimensions that convey norms, structures, and symbols proper to a higher-order institutional reality with an institutional logic. We ask readers to accept the methodological and theoretical benefits of using ideal-types as well as their inherent limitations (Weber 1978).

the Braun electric razor in 1969. Technique and technology help advance the cause of modernist designers for whom technological mastery is a source of authority. Objects are simple and efficient; colors are often black, white, or grey. Modernists perceive the individual as a user of the object in the space they design. Technology and its continuously evolving capacities encourage designers to constantly draw and conceive the purest of shapes to capture the functional essence of the entity. Michel Dallaire, a modernist industrial designer from Montreal, stresses these aspects: “I dislike superficiality. I like the truth of each material and of each technical process. Functionality of object is essential and inherent in the creative process. Result must be rigorously efficient.” Andre Desrosiers, independent designer in Montréal, concludes: “Inhabited by the engineering aspect of their works, modernist designers want their creation to work.” In France, the first design professionals were engineers and architects who touted modernism as a natural logic.

Contrary to modernism, postmodernist ideology emphasizes pure design and the re-establishment of a designer-as-artist identity. In her study, Larson (1993) insists on *formalism*, i.e., the identification of architects as artists rather than as producers of social reality inspired by science. Formalism, the second ideal-typical logic, is embedded in artistic movements such as *Free Forms* and is a reaction to the modernist logic that arose after the Second World War. This movement, and protest groups such as Memphis, opposed to modernist values, criticized mass consumption and offered a new conception of design that promoted color, playfulness, optimism, and subjectivity. Formalism stems from taste judgments and societal definitions of spirituality, sacredness, and beauty.<sup>4</sup> These values are evident in one of E. Sottsass’ most famous works: the

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<sup>4</sup>While religion is recognized as a classical higher-order institution (Weber, 1978; Friedland and Alford, 1991;), we enlarge slightly the scope of this institutional sector to include spirituality and aesthetics in its sphere. Indeed, without entering into a debate about how many institutional sectors or orders coexist in society, we place spiritual, aesthetic, and transcendental dimensions into one sector, that of spirituality. Aside from the fundamental social functions fulfilled by

1969 typewriter “Valentine,” whose bright red color contrasted with the usual black office equipment. For Sottsass, industrial design is “a way of seeing life, politics, eroticism, food and even art.” Long before Apple computers, Valentine affirmed the beauty of a professional object that was also a personal object. According to the formalist ideal-type, form does not follow function, it precedes functionality. The source of designers’ authority is charismatic leadership, whereby the designer aims to “create strong signs and surprises,” according to Philippe Starck, a world-famous French formalist. The genius of a sculptor can be applied to everyday objects. In 1990, Starck designed a toothbrush for Sanofy-Synthelabo that mimicked the form of Brancusi’s sculpture “L’envolée de l’oiseau.” Also in 1990, Starck designed a lemon squeezer (manufactured by Alessi), which looks like a sculptural giant spider and is “strange and singular.” Formalism has allowed designers to explore new creative directions, where the individual is viewed as human with phenomenological experiences of reality. Cedric Sportes, a French designer who works in Montréal, has adopted a formalist conception of his design practice. He describes himself as a “juvenile creator.” To him, a formalist designer is strategically different from a modernist designer because experience and free expression precede rationality and technique. “While modernism applies technical criteria to judge its production, formalist work is neither right nor false. It appeals to subjective and emotional experiences,” explains Andre Desrosiers.

The third ideal-type of designer institutional logic is *managerialism*. Managerialism proceeds from considering the market as an economic structure containing values and principles that expands its legitimacy to new domains (Haveman and Rao, 1997; Scott et al., 2000;

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well-identified institutions (public good protection [states], private good [corporation], exchange [market], etc.), other metaphysical functions may have been ignored in our organizational studies that religion, per se, does not capture entirely. However, the sacred and the beautiful have a long common history, in isolation and in conjunction with professions, markets, and corporations. In this endeavor, we thus follow Elie Faure, Erwin Panofsky, and Harrison White by drawing broader contours for spirituality as a higher-order institutional sector.

Thornton and Ocasio, 1999; Kitchener, 2002). As early as 1959, in its exploratory tour of the American design industry, a EOCE investigation group concluded that a professional designer “must be 30% an engineer, 30% an artist, 30% a sociologist, 30% a business man and 30% a seller.” (EOCE, 1959:41). In 1961, Thomas Maldonado saw design as the process that coordinates all factors contributing to a product, from its consumption (functional, symbolic and cultural factors) to its production and distribution (Verganti, 2008). Despite this early notice, the conception of industrial design as viscerally entangled with business techniques has been very slow to permeate the French design industry. In the late 1980s, the structure of the profession around the educational system began (design schools and curriculum distinct from engineering or art education), with national and regional exhibitions on design, and the institutionalization of design as generating distinctiveness within markets for products and services (see Appendix 2 for additional historical elements). Since the early 1990s, the Design Management Institute (DMI), originally a US-based organization has grown internationally to include large firms, their designers as well as independent design agencies, and academics. The DMI has theorized and expanded the managerialist logic through its publications (like DMI Review and more recently DMJournal) and multiple conferences across the world.

Although technical and cultural values are present in managerial design, the most influential values are economic; the ultimate goal appears to be the use of design as a means (to build optimized solutions), and not as an end as in modernism (to build perfect objects) or in formalism (to build aesthetic experience). The source of a designer’s identity hinges on being a project manager, and the source of authority revolves around the designer’s capacity to understand clients, current production processes, and strategic constraints. Charles Godbout, an independent designer, states that, in order to conceive optimized solutions, “Managerial design

means a tool for business.” Verganti (2008) confirms that such “interpretations of design often tend to be very close to “product development” and sometimes its interpretation are close to market research or creativity and even branding.” Hence, the individual at the end of the creative process (i.e., the consumer) is considered to be the target and the basis of attention. Ginette Gadoury, the SIDIM<sup>5</sup> president, says: “Managerial design must satisfy clients’ objectives and needs.” Clients and their needs are thus integrated into the creative process as early as possible (Borja de Mozota, 2002). Therefore, through institutional changes, theorization, and socialization, managerialism has become available as a resource to design agencies, as a complement or substitute to the traditional and oppositional modernist and formalist logics.

For Roger Tallon, the famous French industrial designer who designed the high-speed train TGV, the evolution of the train’s design reflects the deeper institutional evolution of the French industrial design industry. In the mid-1980s, the train’s squared lines and its massive aspect epitomized Tallon’s engineering vision of design, deeply anchored in technology where form follows function. In the mid-1990s, the second generation of TGV exhibited biological lines inspired by fast animals, as if form overshadowed function. The third generation of TGV, launched in 2005, introduced new colors and materials and optimized space, at minimum cost, reflecting the touch of fashion creator Lacroix. Over its history, TGV has illustrated the coexistence of the three ideal-typical institutional logics, represented by the shift from a logic rooted in technique to one where form took precedence and, eventually, to a third where cost efficiency was quintessential.

Therefore, at the end of the 1980s, three distinct institutional logics coexisted in the French industrial design industry. Modernism and formalism were the tutelary logics of the

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<sup>5</sup>SIDIM = Salon International du Design d’Intérieur de Montréal.

profession, and managerialism appeared to some as centered on the means to reach their ends.

Whereas being modernist or formalist was a clear choice for industrial design agencies as rooted in distinct higher-orders (science vs. aesthetics), their relationship vis-à-vis managerialism was full of circumspection.

### **COMBINING OR ABANDONING A LOGIC FOR MANAGERIALISM?**

While it has long been recognized that the institutional logics of society are available to social actors as resources for action (Friedland and Alford, 1991; Thornton et al., 2012), we have little understanding of what drives professional organizations to strategically incorporate and discard institutional logics. Strategy scholars traditionally define firms' resources as the tangible and intangible assets which are tied semi-permanently to the firm (Wernerfelt, 1984; Barney, 1991). To the extent that firms can recognize logics in their environment and decide to position themselves by adopting discourses or practices that tie them to available logics, institutional logics constitute resources for the firm. Logics as resources are strategic to the extent that they affect the competitive position of firms and have consequences for their future performance. The case of design agencies reveals how the availability of the managerialist logic contributed to reshape the competitive landscape of the industry. Whereas design agencies were previously instantiating either the institutional logics of Formalism or Modernism, depending on the training and philosophy of their founders (Jones and LivTandarach, 2008; Stinchcombe 1965), managerialism began to appear as a strategic choice available to firms in the 1980s. For the decision makers able to recognize such a choice, the options were the following: remain loyal to the firm's original logic (*status quo* by ignoring managerialism), adjoin managerialism to the firm's existing logic (*logic addition*), or abandon the firm's original logic and turn into a pure managerially oriented organization (*logic focus*). Logic addition proceeds from a hybridization

strategy as the firm has to articulate the supplementary logic in combination with its original logic (Battilana and Dorado, 2010). In contrast, a singular focus on one logic requires a purification effort as the firm suppresses references to an earlier logic and concentrates on the remaining one (Jourdan, 2011). We argue that for a design firm, the choices leading to the adoption and focus on a new logic such as managerialism stems from both the degree of awareness (based on competences and industrial scope) and the opportunities available to the firm based on its status position in the social structure.

### **Awareness**

For a design agency to engage in managerialism, it needs to be aware of its availability. In other words, the firm and its decision makers need to realize the potential for strategic choice for the opportunity to materialize (Daft and Weick, 1984; Bowman & Hurry, 1993; Ocasio, 1997). The taken-for-granted nature of institutions means that, more often than not, the option to add a new logic such as managerialism may not be thinkable. Accordingly, the possibility to add and focus exclusively on a recent institutional logic will depend on the firm's awareness, that is its ability to question internalized logics and recognize the availability of alternatives in the environment. For instance, Briscoe and Safford (2008) stress the differentiated role of firms' internal groups as a trigger to embrace new logics of action as soon as prior opponents started accepting what they had previously resisted.

Traditional conceptions of institutional change emphasize the possession of internal resources and specificities sought by actors as an avenue for adopting different paths of action (e.g., Leblebici et al, 1991). Internal competences are a fundamental lever of institutional choice and logic deployment (Freidson, 1986; Fligstein, 1990; Creed, Scully and Austin, 2002). For instance, Kraatz and Moore (2002) underscore how variation in competences (via knowledge

transfer and interorganizational learning, introduction of new mental models, and attenuation or replacement of institutional values) leads administrators to develop and implement controversial college programs. Competences underlie expertise and the superior ability to execute particular activities in a professional domain (Freidson, 1986). For instance, in the design industry, respondents identified four domains of design competence: visual (2D), product (3D), environmental, and socioanalytical (social and human knowledge).

Muriel Rajaut, a manager at a reputed French design agency, acknowledges that “few agencies can pride themselves on mastering both 2D and 3D design because they are two different areas of expertise; the agency needs to get contracts for each activity on a regular basis.” Each domain of competence possesses its own constraints and demands. From the above, depending on their professional competence, design agencies are more or less aware of alternative logics –in particular managerialism - are suitable for them. We argue that more competent firms in their domain of activities –i.e. more focused on an area of expertise or gaining competence- will be less aware of new logics available to them and will adopt them less than other firms that possess either a broader set of competencies or a lower overall degree of competence. Even if aware of alternative logics, the cost of adding a not-obviously compatible logic like managerialism to a firm’s original logic (in terms of all its elements such as identity, authority, legitimacy, and so forth) will to more competent firms appear high compared to the potential benefits. While the managerialist logic is likely to appear less theoretical and specific but more replicable, it requires different sets of competencies and activities that more competent firms will not perceive as valuable as firms which are less specialized or skilled.

*Hypothesis 1. As their degree of competence diminishes (having a broader repertoire of expertise, lower skills), design agencies will be more likely to add managerialism (logic addition) and to concentrate exclusively on managerialism (logic focus).*

The scope of a firm's clientele also will be critical in shaping its awareness of alternative institutional logics. This is because extant activities rely on routines that affect the attention structure of the firm (Ocasio 1997). Design agencies, as in many professions, have more or less specialized clienteles, and focus on different set of activities to address them (Ramirez, 2009). Whereas an agency with a dispersed set of clients belonging to various industries will have a wider attention span (Schroeder, 1990), an industry-specialized agency is more likely to be driven by the specific demands of its clients that share certain similarities (Lounsbury, 2007). Hence, the former will have more chances to enter in contact with new logics and adopt them (Schneiberg and Clemens, 2006). Getting entrenched in an industry's specificities induces a design agency to become more and more involved in assessing and following its clients' specific needs. Narrower industrial scope entails an increased dependence on the judgments of few potent clients within their industry. According to Paul Schmitt, "many designers limit themselves to a given specialty. When Alessi needs new ideas for a coffee machine or a screwdriver, they call on different agencies based on their specialty. But that means that specialists are more dependent on their clients' ideas and beliefs than multi-sector agencies." Because of their clients' expectations and their increased dependence on the industrial players likely to share their own logic, agencies with narrow industrial scope develop practices that reinforce the taken-for-grantedness of their institutional logics, restricting their institutional awareness (Scott et al., 2000; Thornton et al., 2005; Hwang and Powell, 2009). Therefore, the narrower the scope of activities of an agency, the lower is its likelihood to be aware of the possibility to add and focus on a new logic as a strategic choice.

*Hypothesis 2. Design agencies with a broad industrial scope will be more likely to add managerialism (logic addition) and to concentrate exclusively on managerialism (logic focus) than agencies with narrower industrial scopes.*

## **Opportunity set**

Prior research suggests that deviating from the established dominant logic is not without consequences and can trigger severe social sanctions (Phillips and Zuckerman, 2001; Durand et al 2007). For a firm to engage in logic addition, it needs to have the ability to resist social pressure and venture in new institutional territories. As a positional attribute, status confers authority and discretion to act. Status results from the acceptance by a professional community that some states or characteristics are unevenly distributed among its members, who deserve to be singled out (Larson, 1977; Berger et al., 1998; Ridgeway, 1991). The community, or its representative bodies, pay tribute to these members via awards, prizes, or rankings to symbolize these intra-community dissimilarities. Status signals that certain actors' choices are more desirable, valuable, acceptable, and meaningful than those of less prestigious actors. The director of the most influential regional design center, MM. Gabillard, explained to us the significance of awards to the French design profession: "Laureates are like lighthouses that signal the way to go for others and enable new things and ideas to become acceptable. What matters is that design agencies enter the competition and for some to win awards and prizes". Acknowledged standing reduces behavioral uncertainty for the community and influences strategic behavior (Benjamin and Podolny, 1999) as well as deviation from the norm (Phillips and Zuckerman, 2001; Rao et al, 2003). But also, low status players can violate conformity and innovate by combining logics, while middle status agents have been recognized as the most conservative (Phillips and Zuckerman).

Because social structure is a precondition of resource selection, it represents different opportunity sets depending on position (Bourdieu, 1977; Sewell, 1992; Podolny, 2005). Since institutional logics not only constrain organizations but are also resources that organizations can

employment, both high status and low status organizations sway the prevalence of managerialism in the industry. The choice by high status agents to embrace managerialism is disconnected from cultural betrayal, as is the case in the contrast between avant-garde versus classicism (Becker, 1974).<sup>6</sup> Whereas a recognized modernist opting for formalism would be a shocking occurrence to peers and would likely be penalized by social sanctions, loss of revenues, or professional ostracism. However, adopting managerialism introduces innovativeness to a high status professional without obviating its original logic orientation. For a distinguished agency, “managerializing” one’s identity is an innovation without violating existing codes (Durand et al, 2007); it does not connote one’s identity as negatively morphing into a pure managerialist. Nevertheless, a firm that focuses only on managerialism by abandoning its original logic would deprive the high status player from its base and it will probably not cross the Rubicon. Low status agencies will add managerialism as a way to differentiate themselves and attract attention but cannot really focus only on managerialism as they first hope to be recognized as a design agency. Therefore, we expect that middle status conformity will have an effect for logic addition, but it will not operate when firms must separate themselves from the domain and categories that establish their identities as peer members in either traditional logic. Therefore:

*Hypothesis 3. High and low status design agencies will be more likely than middle-status agencies to add managerialism (logic addition), but less likely to concentrate exclusively on managerialism (logic focus).*

## METHODS

**Data source.** To characterize the institutional logics present in the French industrial design industry, we conducted a series of 38 interviews in France and Quebec with retired and active

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<sup>6</sup>“An attack on sacred aesthetic beliefs as embodied in particular conventions is, finally, an attack on an existing arrangement of ranked statuses, a stratification system . . . the resistance to the new expresses the anger of those who will lose materially by the change, in the form of aesthetic outrage” (Becker, 1974, : 773–40).

independent designers, professional association managers, governmental representatives, company designers, and professional educators (Appendix 1, Szostak, 2006). We supplemented our work with industrial design history and art history texts (e.g., De Noblet, 1988; Flamand, 2006; Guidot, 2000; Guillen, 2006; Larson, 1993; Loewy, 1995; Lucie-Smith, 1983; Smith 2005; Whitford, 1984; Woodham, 1997). We found that in France as in many countries (Canada, Finland, Germany, Italy, the United Kingdom, and the United States), the history of science and art has permeated the design field and nurtured how designers identify and define themselves. Based on this evidence, we identified mainly two major ideal-typical logics: modernism and formalism, supplemented more recently by a third logic: managerialism.

The interpretative analysis of our interviews, the convergence of our ideal-types with historical analysis of art movements, and anecdotal evidence (such as the TGV) lend support for the presence of institutional reordering in the French industrial design industry over the period of study. In order to affirm these changes and test our propositions, we conducted a quantitative analysis. The design profession is not registered with a unique SIC code in France. Genevieve Sengissen, member of the Fédération des Designers Industriels (FEDI) union, indicated that “there is no clear professional referential of this sort” and suggested that we use a professional journal: the *Guide des Professionnels du Design* (hereafter, the *Guide*). Among others, Eric Fache, president of FEDI, C. Paymal from Dragon Rouge agency, and Yo Kaminagai, design manager of Parisian Metro, confirmed that this publication is the most useful source of information on French design. The *Guide* is issued by the Strategies publishing group, which specializes in professional publications in the areas of communication, public relations, and art. Founded in 1989, it focuses on consumer goods and services industries; annual circulation is 7,000 copies. Since its origin, the *Guide* has used the same format for collecting information (a

questionnaire sent to agencies) and the same categories: descriptive information, financial data, agency philosophy, clients, projects and products, awards, and expertise domains. Because agencies are grouped by their expertise, an agency can be present in more than one section of the *Guide*. In our dataset, we gathered all the information corresponding to a given agency and studied the changes in expertise and institutional instantiation over the years. Between 1989 and 2003, 249 different agencies appeared at least once in our archival source.

**Managerialism and dependent variables.** In our attempt to explain design agencies' institutional choices, we studied logic instantiation following a three-step process. First, using the *Guide*, we categorized each agency's institutional logic instantiation. As in prior studies (Scott et al., 2000; Rao et al., 2005; Jones and Livne-Tarandach, 2008), we composed a corpus of vocabulary associated with each ideal-type, based on the content analysis of our interviews and analysis of the logics by other scholars (De Noblet, 1988; Borja de Motosa, 2002; see bottom of Table 1 for illustrative excerpts). For each of the lines of an agency's self-presentation in the *Guide*, we searched for terms associated with each of the logics and counted each term. In some instances, drawings or graphical representations accompanied the agency's description. We interpreted these images using the same series of references as indicated in Table 1. When there were congruent references to only one ideal-typical logic, we coded 1 for this logic. In the absence of a clear dominance, we coded 1 for each of the two logics represented. In the rare cases of systematic reference to one logic and when only one cue belonged to another logic, we ignored the discrepant cue. We coded the data on agencies year by year and assessed coding stability by verifying that the agencies that did not change their self-presentation from one year to the next received the same coding. Stability was 100%. For reliability, we used two additional independent coders, one of whom was a design expert (a teacher of design and art history).

Interrater agreement (Cohen's kappa) among the three raters was 80% and was greater than 92% between the design expert and our own coding. After examining the diverging cases, we agreed on a final coding.

We created two dichotomous variables: *logic addition* and *logic focus*. *Logic Addition* takes a value of 1 when a design agency at year  $t$  instantiates managerialism as a complement to either modernism or formalism (and 0 for the other instances). *Logic focus* takes the value 1 when managerialism becomes the only identifiable logic instantiated by an agency, and is coded as 0 otherwise. Over the full period, as shown in figure 1, we observed that managerialism becomes the norm of the industry (more than 2/3 of agencies include references to managerialism at the end of the period) whereas pure modernists or formalists decrease from 2/3 to 1/6 of the population. Agencies focusing on managerialism only stabilize at more than 10% of the population.

*Insert Figure 1 about here*

**Independent variables.** Awareness depends on a firm's competences and its exposure through industrial scope. Based on our knowledge of the industry and in agreement with our interviewees, we distinguished four types of competences in our setting: (a) visual design (graphical, 2D); (b) product design (3D and other senses beyond visual); (c) environmental design (spaces, architecture of interiors, furniture and other equipment); and (d) socio-analytical design (integration of psychological, sociological, and economic studies). For each type, we graded the agencies' competence based on all the accessible information from the *Guide* on a scale of 0 to 10. Based on further discussions with interviewees, we first developed a series of rules for each competence and graded 40 agencies. For instance, for the practices of "visual design" and "product design", the rules are displayed in Appendix 3. Two independent coders (a

professional and a nonspecialist) graded the same agencies using the rules. The resulting inter-rater agreement was between .74 and .79.

Then, we amended the rules based on comments from designers. We shared the series of rules with our external raters and significantly improved our inter-rater agreement to above .90. Last, we coded the rest of the agencies. Therefore, for each competence, *visual*, *product*, *environmental*, *socio-analysis*, we have a score that positions the firm, a higher value indicating a greater competence. We capture the range and degree of competences by two variables: *number of competences* is the count of competences and takes values of 1, 2, 3 or 4. As per Hypothesis 1, higher numbers will favor managerialism adoption and exclusive focus as more diverse experts are likely to be less competent in each of the activities. Second, with *gain in competence*, we calculate the difference from year to year of the total value of expertise scores weighted by the number of competencies. A positive difference indicates a gain in competence and according to Hypothesis 1 should be negatively related with managerialism adoption or focus.

We measured the second dimension of awareness, *industrial scope*, as 1 minus the Herfindhal index of the total number of industrial sectors where an agency's client operates, out of the 13 represented in the database. The greater the Herfindhal index, the more concentrated is an agency's client basis. Therefore, as our measure is 1 minus the Herfindhal index, the narrower the industrial scope, the smaller the value of the variable, with greater values indicating more disperse industries, which according to hypothesis 2, should be more favorable to managerialism.

Our panel of interviewees helped us distinguish the five most prominent awarding entities and ceremonies characterizing professional recognition in the industrial design field: (a) Janus de l'industrie, awarded by the French Design Institute and focusing on technical characteristics;

(b) Oscar, awarded by journalists and professionals from client industries and focusing on two-dimensional design such as graphism, packaging, etc.; (c) *Stratégies Prizes* organized by the *Stratégies* publishing group, covering four categories of design: graphical, product, environmental, and multidimensional; (d) TopCom awards, given at the TopCom conference and focusing on communication and expression through visual design, editorial and graphical charters, and internet websites; and (e) l'Observateur, awarded by the APCI for innovative products, with criteria including ergonomics, sensorial approach, and ecological aspects. In an industry with various legitimating agencies and several award subcategories, we calculate *awards* as the logged cumulative number of awards garnered by an agency at time  $t$  since its founding. This variable captures the degree of recognition obtained by an agency for its past production and is a proxy for status. In our model, as per Hypothesis 3, we use both the linear and quadratic values of *Awards*. Note that other variables produce similar results (e.g. proportion of awards granted relative to all awards granted over the period of study).

**Control variables.** A series of control variables were included in our models to account for alternative explanations of managerialism instantiation. First, at the level of the industry, a vast literature gives evidence of the influence of past instantiations in explaining a focal agent's logic adoption. Some social and fashion effects could play a role in accounting for why agencies instantiate managerialism. Therefore, the *past managerialism adoption* variable is the proportion of agencies having adopted managerialism at  $t-1$ . This variable controls for social effects of past adoption (e.g., Rao, Greve, Davis, 2001; Rao et al., 2005). Other control variables at the industry-level include dummy variables for years (not reported in Table 3) and *density* (logged number of design agencies), which accounts for ecological aspects (the quadratic term was not retained in final models as it was insignificant).

At the firm level, we include several control variables in our baseline model. First, an agency's position in the profession may facilitate its freedom of institutional choice (Davis and Greve, 1997; Lounsbury, 2007). We measured an agency's centrality by its number of ties, that include an agency's ties with professional associations and partners in France – declared ties with professional associations (e.g., FEDI), unions (primarily Union Française des Designers Industriels), regional groups, professional accreditations from Opdqj (Office professionnel de qualification des designers industriels) –and the number of memberships in foreign design associations and partnerships with foreign design agencies. The variable *Ties* uses the logged value of this count, a higher value pointing to greater centrality and ability to add references to new logics. Second, *governance* represents a firm's legal structure; it is set equal to 1 for "unlimited liability," which represents greater legal responsibility for owners than other types of governance, and 0 for otherwise. As *governance* indicates the degree to which owners bear legal responsibility, one could expect that the higher this responsibility, the higher the probability to engage in managerial choice, as managerialism aims at economic performance.

Third, we accounted for *size*, measured by the logged number of employees, and fourth for *age*, the logged number of years since agency founding, as both have been shown by past research to impact firms' strategic choices. Fifth, *international* is a count variable that assesses the number of an agency's international contracts likely to influence its choices relative to managerialism (we use logged number of contracts). Sixth, to account for potential differences between firms that entered the industry during our observation period and firms that pre-existed, we created *leftcensor*, a dummy variable that is set equal to 1 for firms that were founded before 1989 when we start our observations and 0 otherwise. Finally, we control for the value of each of a design agency's four competences as per the calculations explained above and in Appendix 3.

Overall, due to the necessity of repeated observations and lagged variables, we ran our models using 893 fully informed observations representing 180 design agencies. Table 2 reports the descriptive statistics and correlation matrix for the variables.

-----Insert Table 2 about here-----

## RESULTS

We evaluated the likelihood of *logic addition* and *logic focus* using two logit models with robust standard errors and clustering on agencies. Using several procedures, we tested for the presence of endogeneity, which could affect our results. In particular, competences and dependent variables could be related to each other by unobservable factors (competences and the error term of our regression equations could be correlated). Hence, we estimated an instrumental regression for each area of expertise. We then introduced the predicted residuals, *resid*, of these first equations into the logit models and recalculated the standard errors. We checked whether *resid* coefficients were significant in the logit equations; none were significant. Therefore, this procedure ruled out potential biases due to endogeneity in our models, and we opted for presenting simpler logit regressions.

We proceeded stepwise by successively adding to our control variables *number of competence, gain in competences, industrial scope, and awards*) in the two logit models with *logic addition* and *logic focus* as the dependent variable respectively in Table 3 and Table 4. Model 1 is the baseline, and adding each independent variable improves significantly the baseline model Chi2.

-----Insert Tables 3 and 4 about here-----

The control effects establish a baseline for gauging the effects of the independent variables and the appropriateness of the models' specifications. Density reduces the likelihood to

add managerialism to an existing logic (Table 3), whereas it increases the likelihood to become a pure managerialist agency –i.e. to abandon the traditional logic of modernism or formalism (Table 4). Firms with more ties tend to add managerialism (Table 3) although the effect on becoming a pure managerialist firm is barely marginally significant (Table 4). Bigger firms tend not to combine managerialism with their prior original logic (Table 3). When looking at competences individually, more competent agencies in 3D design tend to “managerialize” their identity more (Table 3) whereas agencies more competent in socio-analysis design tend to do this less (Table 4). However, when there is an existing combination between either modernism or formalism and managerialism logics, more competent firms in socio-analysis design are the ones more likely to abandon their original logic (Table 4).

The addition of variables capturing competence breadth or level contributes to the baseline models. Hypothesis 1 states that as their degree of competence diminishes (having a broader repertoire of expertise, lower skills), design agencies will tend to add and focus more on managerialism. Results show that the number of competencies is positively associated with addition of managerialism (at 10% in Table 3) and with abandonment of the initial logic to become a purist in managerialism (at 5% in Table 4). The *gain in competence* is, as expected, negatively related to *logic addition* (at .1% in Table 3) but not so to *logic focus* (coefficient not significant in Table 4). Overall, there is substantial support for the idea that when design agencies are more specialized and skilled, they have a lower likelihood to adjoin managerialism to their existing logic or to focus exclusively on managerialism. We present the addition of other independent variables with the more significant of the two variables, i.e. gain in competence with logic addition (Table 3) and the number of competencies and logic focus (Table 4).

Regarding Hypothesis 2, results give support to the expectation of a positive association between *industrial scope* and *logic addition* and *logic focus*. Coefficients are positive and very significant for the former (Table 3, Model 5, at 1%) and positive and significant for the latter (Table 4, Model 5, at 5%), indicating that design agencies with broader industrial scope tend to add and focus on managerialism more than those with clients from a limited number of industry sectors.

Finally, Hypothesis 3 predicted a curvilinear relationship between *status* (represented by awards in our models) and *logic addition* (but not with *logic focus*), such that high and low status design agencies will be more likely than middle-status agencies to add managerialism to their repertoire but not to focus exclusively on managerialism. Coefficients for *awards* and *awards*<sup>2</sup> in Table 3 give support to this conjecture, demonstrating a U-shaped relationship –significant coefficients at 5% for both linear and quadratic terms. In Table 4, both coefficients are non-significant as expected too. Note that interactions between *status* and *awareness* variables (*competence* and *industrial scope*) did not lead to additional findings of interest as they remained non-significant.

## DISCUSSION

Our paper responds to recent calls for rapprochement between institutional and strategy research whereby “strategy research can offer insights into the reasons why organizations would seek to bring conformity and innovation together by both preserving a resource base that respects the established order, but also disrupts practices and traditions in their search for advantage” (Durand, 2012: 300). French design agencies faced with the strategic choice to define their identity relative to the managerialist logic, could ignore it and maintain the status quo, add it to their identity and value proposition; and even become a managerialism purist. Their individual

decisions nurture a movement at the level of the field, which incrementally modifies the legitimacy of each decision context. In the spirit of the cited call and others as well (Thornton et al; 2012; Ingram and Silverman, 2002), after controlling for alternative explanations (industry effects, ties, governance, age, size, internationalization among others), we explained the choices to add and focus on a managerialism as stemming from each firm's awareness and social position.

Awareness depends on the competence base: a narrower base of competence discourages firms to instantiate managerialism as a logic for their actions whereas an agency with a broader competence portfolio (supposedly less skillful in each competence) will tend to add managerialism and focus exclusively on this logic (i.e. abandoning its prior logic, either modernism or formalism). Examined from a different angle, that of *gain in competence*, results converge to the same conclusion: firms which gain in overall competence are less likely to add managerialism to their repertoire (coefficient not significant for *logic focus*). Awareness is also driven by exposure, and design agencies with a broader industrial scope tended to add and focus on managerialism more systematically than firms which deal with clients from limited sectors. Confirming some prior studies on middle-status conformity, agencies with high and low status tended to add managerialism more than middle-status conformers. However, they did not focus exclusively on managerialism since the former will lose their identity roots and damage their position and the latter need to be recognized designers and as such have to anchor their identity within one of the two logics that imprint the field, either modernism or formalism).

We acknowledge this study has potential limitations, some of which engender future research opportunities. First, we examined a cultural, rather than a manufacturing or high technology, industry where ideal-typical institutional logics may differ. In particular, our setting

involves distinctive logics likely to be less salient in noncultural industries (e.g., formalism).

Second, particularism weakens generalizability of results, and boundary conditions proper to the particular context and situation must be acknowledged whenever studies use national data. Third, one may question whether an institutional logic's instantiation is fully captured in secondary data. We opted for a research design that focused on what agencies declared and as such was observable by actors from the field, both with its embedded advantages and limitations. Fourth, during our period of study, institutional logics as they are connected with higher-order socio-cultural orders remained relatively stable. As a consequence, we are not examining the blending of institutional logics, and in our study hybridization occurred at the organizational, not field level. These characteristics only reinforce the need to extend our study to other unsettled or mature sectors and industries and to analyze how organizational and strategic factors encourage institutional hybridization or purism. Last, we were unable to account for firms' financial performance due to data limitations. Performance might be an explanatory factor for the adoption of the managerialism logic, since managerialism's promise is that of economic efficiency. Also, it would be important to examine which of the logic additions and logic foci bring greater monetary and symbolic outcomes.

Few studies make the connection between higher-order institutional sectors, institutional logics at the industry level, and organizations' instantiation choices (Fligstein, 1990; Haveman and Rao, 1997; Scott et al., 2000; Thornton and Ocasio, 1999). However, when organizations make reference to or stop instantiating a given logic, this impacts the relative prevalence of logics in the industry and of higher institutional sectors in society. In examining the sources and consequences of such institutional reshuffling, we complement classical analyses that assign a prevalent role to habitus and sense making in accounting for institutional change. Whereas this

classical view is applicable to oppositional logic choices (old vs. new), we can deduce that institutional plurality imposes a theory of institutional strategic choice in which industry instantiations of ideal-typical logics and their corresponding dimensions are resources that are recognized and mobilized by organizations in terms of firms' relative competencies, scope, and status characteristics. This result is important as it paves the way for a more direct connection between institutional logics and organizational performance which could not be studied in this paper but deserves further scrutiny. If, as defined elsewhere (Durand, 2000; 2006), competitive advantage is the "concrete actualization of the rent potential resulting from the conjunction of resources (with isolating properties) and capabilities (actualizing resources' potential rent-accruing services) capacitated by firms in industrial contexts" (Durand, 2006: 125), then institutional logics pertain to the domain of resources not only as a factor that defines its production capacity and identity but also as a determinant of the rent potential of firms.

Our results prompt dialogue between strategy and institutional research. We qualified institutional logics (in the text and the title of this chapter) to be resources for firms in an attempt to expand the semantic scope of this term in strategy. While strategic resources are productive inputs and assets usually conceived as valuable when they provide firms with private benefits that cannot be imitated by competitors (Barney, 1991), institutional logics as resources have value to the firm to the extent that they increase pressures for competitors to imitate them (Durand, 2006). When firms enjoying both institutional awareness and ability to deviate from the status quo venture outside their institutional comfort zone, they contribute to alter the institutional order (Durand and Jourdan, 2012). By adopting managerialism, design agencies not only changed their own position in the industry, but also created pressures for competitors to

follow in a territory where they had an advantage – reminiscent of Google’s strategy with open source.

Our study reveals which firms use institutional logics as strategic resources: design agencies with large design competence bases and a broad industrial scope of operation are more likely to be aware of available institutional logics, while high status firms have more ability to act upon institutional logics as strategic opportunities than other firms. In doing so, this study helps to shed light on a paradox of prior institutional research: why would high-status actors play a key role in triggering institutional change when such change is likely to undermine the very basis of their own social position and advantages? Without accounting for such strategic dynamics, it is difficult to understand, for instance, why high-status restaurants contributed to favor the emergence of Nouvelle Cuisine, threatening the Traditional Cuisine logic that formed the basis of their own social standing (Rao et al., 2005). Our findings suggest that one reason why elite restaurants supported the alternative logic was to strategically increase competitive pressures on rivals. As Nouvelle cuisine became more and more prevalent in the field, the restaurants that had first embraced the alternative logic had gained a competitive advantage by mastering the practices and discourses underlying the bases of the logic. Rivals that were late to jump on the bandwagon were at a disadvantage because they lacked the required credentials, source of authority and identity, and the mastery of Nouvelle Cuisine techniques. At the same time, restaurants that had chosen to stick to Classical Cuisine were out fashioned and relatively marginalized in the industry’s institutional space.

For the institutional perspective, this paper complements the endogenous change tenet that assumes that pioneering institutional entrepreneurs or powerful actors upend institutionalized industries by triggering imitations of new logics. We argue that, as a way to

perpetuate their actions, organizations tap into an institutional reservoir of logics as resources for action. With this study, we respond to calls by Schneiberg and Clemens (2006), Lounsbury (2007) or Thornton and Ocasio (2008) to tackle the challenges of institutional plurality faced by organizations. Assuming that field or societal level logics vary much less rapidly than do adoption and instantiation conducted by firms, we consider logics as more or less prevalent resources, which, although constraining the organizations that instantiate them, coexist in an industry and are selected depending on an organization's characteristics. In the case of oppositional logic pairs, the selection of the insurgent logic leads to an automatic loss of influence of the dominant logic. When institutional plurality exists, depending on its competence and industrial scope that condition its awareness, and on its status that determines its opportunity set, an organization has more or less latitude to modify its institutional instantiation without appearing as an activist or an objector or to blur its identity.

Hence, the respective salience of institutional logics is not independent of the organizations that adopt them. Uncovering the mechanisms that explain why firms evolve in their logics' instantiation helps us understand why and how various high-order sectors diffuse in society, as organizations instantiate available logics. According to this view, the straightjacket of institutional logics and isomorphism loosens a bit, allowing concurrently the inscription of logics within a higher-order cultural context, and strategic determinants to gain importance in explaining institutional change. In particular, the view of the market logic as dominating the various institutional sectors of State, family or professions is modulated by the possibility that some organizations use a market logic in combination with rather than in substitution of their original institutional logic. In our setting, managerialism becomes dominant not because of purists (managerialists represent about 12% of the population) but because of pluralization,

highlighting a tendency to both preserve existing logics and codes and transform them by adopting new ones (e.g Durand et al, 2007). Therefore, these findings support a new perspective of institutional change where strategic factors encounter institutional logics and determine institutional choices.

Hence, by connecting organizations' strategic characteristics to institutional heritage, we can envision culture as the contingent expression by organizations of higher-order cultural sectors epitomized in institutional logics. We have identified a number of factors that lead to firms' quest for strategic advantage; the changing degrees of organizational competencies or industry focus that affect firms' level of awareness and, their opportunity set that was shaped by status ascription by industry members to a selected few alters --all factors which lead to logic addition or a singular focus on new logics in the quest for strategic advantage. Therefore, this study paves the way for an institution, organization, and strategy (IOS) model of cultural evolution whereby organizations (e.g. Durand, 2012), depending on their strategic characteristics, are the central conveyors and dispatchers of higher-order cultural sectors through their choices of institutional logic instantiations.

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## TABLES

**Table 1. Ideal-types of institutional logics in the industrial design industry**

	<b>Modernism</b>	<b>Formalism</b>	<b>Managerialism</b>
<b>Corresponding Institutional sector</b>	Profession	Spirituality	Market
<b>Source of identity</b>	Designer as engineer	Designer as artist	Designer as manager
<b>Source of authority</b>	Technique mastery	Charismatic leadership	An efficient means for business
<b>Basis of mission</b>	Design as an end: Build perfect objects (function over form)	Design as an end: Build aesthetic experience (form over function)	Design as a means: Build optimized solutions (compromise between form and function)
<b>Basis of attention</b>	Individual as a user	Individual as a human being	Individual as a consumer
<b>Basis of strategy</b>	Simplicity, efficacy, durability, rigor	Immateriality, symbolism, affect, diversity	Marketing, management of organizational creativity, client-orientation
<b>Excerpt from vocabulary repertoire indicative of institutional logics</b>	To concentrate, to equalize, to make conform, rigor, “it works”, coherence, expertise, efficacy, technical control, technology, seamless process, engineer, know-how...	To dream, to imagine, to mix, to cross, artist, emotion, extravagance, images, lightness, originality, flexibility, human relationships, colors, design art, culture...	To sell, to make profitable, to prospect, to manage, market, competitive advantage, consumer, strategic analyses, network, brand territory, project, competitive environment, marketing reflection...

**Table 2. Descriptive statistics and correlation matrix**

1	Logic addition																		
2	Logic focus	-0,06																	
3	Density	-0,10	0,12																
4	Past manag. addition	-0,10	0,09	0,53															
5	Ties	0,04	0,08	0,03	0,05														
6	Governance	-0,03	0,04	0,02	0,09	0,20													
7	Size	-0,06	0,00	0,03	0,13	0,30	0,45												
8	Age	-0,04	0,01	0,15	0,29	0,21	0,30	0,42											
9	International	0,01	0,01	-0,04	-0,01	0,09	0,09	0,06	0,12										
10	Left censoring	0,05	-0,06	-0,23	-0,43	0,03	0,04	0,22	0,12	0,01									
11	Competence visual	0,00	0,02	0,03	0,07	-0,06	-0,01	0,09	0,09	0,02	0,10								
12	Competence product	0,06	0,02	0,00	0,02	0,01	0,02	0,06	0,21	0,04	0,10	0,51							
13	Comp. environmental	-0,03	0,01	0,02	0,11	0,13	0,13	0,28	0,19	-0,04	0,08	0,05	-0,06						
14	Comp. socio-analysis	-0,06	0,13	0,13	0,26	0,14	0,18	0,19	0,18	-0,05	-0,07	0,13	0,18	0,08					
15	Number of comp.	0,00	0,10	0,10	0,22	0,02	0,13	0,18	0,23	-0,04	0,04	0,52	0,57	0,39	0,57				
16	Gain in competence	-0,10	-0,07	-0,05	0,01	-0,02	-0,01	-0,02	0,00	0,01	-0,03	-0,12	-0,06	-0,10	-0,17	-0,22			
17	Industrial scope	0,08	0,07	0,00	-0,05	0,13	-0,05	0,18	0,02	-0,06	0,09	-0,01	-0,09	0,27	0,08	0,03	-0,04		
18	Awards	-0,04	0,00	0,06	0,12	0,22	0,26	0,48	0,35	0,04	0,23	0,07	0,16	0,29	0,11	0,19	0,00	0,13	
19	Awards <sup>2</sup>	-0,02	0,00	0,05	0,09	0,23	0,26	0,48	0,33	0,04	0,28	0,07	0,12	0,30	0,09	0,18	-0,01	0,12	0,94
		(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)	(13)	(14)	(15)	(16)	(17)	(18)
	Mean	0,06	0,05	4,20	0,71	0,52	0,64	2,86	2,15	0,46	0,33	8,03	6,73	4,63	4,96	3,36	-2,6	0,72	0,76
	Sd	0,24	0,22	0,23	0,14	0,79	0,48	0,90	0,81	1,54	0,47	1,89	2,76	3,42	3,36	0,83	2,91	0,16	0,96
	Min	0	0	3,71	0,36	0	0	0,69	0	0	0	0	0	0	0	1	-10	0	0
	max	1	1	4,51	0,90	5,39	1	5,33	4,34	14	1	10	18	10	10	5	12	1	3,71

**Table 3. Predicting logic addition (adding managerialism)**

VARIABLES	Model 1	Model 2	Model 3	Model 4	Model 5
Density	-1.244+ (0.684)	-1.245+ (0.683)	-1.676* (0.703)	-1.740* (0.702)	-1.786* (0.700)
Past management addition	-0.610 (1.283)	-0.882 (1.297)	-0.370 (1.304)	-0.265 (1.301)	-0.188 (1.296)
Ties	0.422** (0.151)	0.487** (0.160)	0.420** (0.143)	0.388** (0.147)	0.370* (0.151)
Governance	-0.098 (0.302)	-0.085 (0.305)	-0.075 (0.297)	0.035 (0.307)	0.049 (0.302)
Size	-0.312+ (0.160)	-0.298+ (0.163)	-0.293+ (0.156)	-0.335* (0.156)	-0.274+ (0.163)
Age	-0.103 (0.175)	-0.088 (0.177)	-0.057 (0.173)	-0.060 (0.173)	-0.048 (0.173)
International	0.018 (0.071)	0.018 (0.072)	0.033 (0.068)	0.054 (0.070)	0.063 (0.069)
Leftcensor	0.268 (0.273)	0.226 (0.280)	0.278 (0.262)	0.245 (0.267)	0.203 (0.274)
Competence: Visual	-0.022 (0.086)	-0.096 (0.098)	-0.016 (0.087)	-0.020 (0.085)	-0.041 (0.085)
Competence: Product	0.133* (0.064)	0.070 (0.078)	0.135* (0.062)	0.144* (0.063)	0.170** (0.064)
Competence: Environmental	-0.007 (0.038)	-0.067 (0.049)	-0.015 (0.036)	-0.044 (0.038)	-0.049 (0.039)
Competence: Socio-analysis	-0.080* (0.041)	-0.157** (0.060)	-0.099* (0.041)	-0.103* (0.042)	-0.109** (0.042)
Gain in competence			-0.186*** (0.045)	-0.182*** (0.045)	-0.180*** (0.046)
Number of Competences		0.620 <sup>+</sup> (0.325)			
Industrial scope				2.477* (1.005)	2.817** (1.042)
Awards					-0.829** (0.308)
Awards <sup>2</sup>					0.260** (0.100)
Constant	3.255 (2.647)	2.922 (2.672)	4.634+ (2.701)	3.188 (2.765)	3.149 (2.768)
Chi <sup>2</sup>	30.24	31.62	47.35	52.86	57.83
Observations	893	893	893	893	893
Number of agencies	180	180	180	180	180

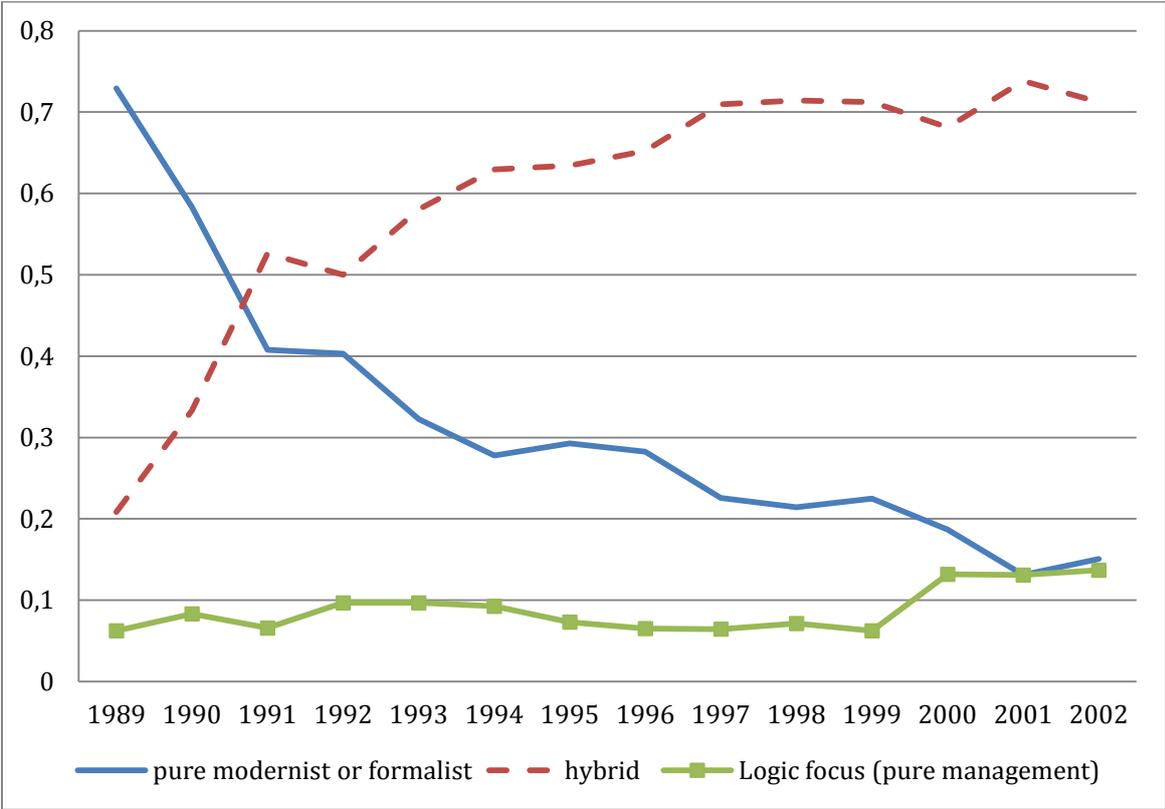
+ p<0.10, \* p<0.05, \*\* p<0.01, \*\*\* p<0.001

**Table 4. Predicting logic focus (becoming pure managerialist)**

VARIABLES	Model 1	Model 2	Model 3	Model 4	Model 5
Density	2.452* (1.017)	2.316* (1.009)	2.357* (1.021)	2.203* (1.013)	2.207* (1.011)
Past management addition	0.242 (1.731)	-0.021 (1.712)	0.376 (1.745)	0.437 (1.740)	0.389 (1.741)
Ties	0.233 (0.159)	0.279+ (0.165)	0.225 (0.159)	0.248 (0.169)	0.241 (0.170)
Governance	0.292 (0.353)	0.244 (0.355)	0.289 (0.352)	0.353 (0.364)	0.360 (0.365)
Size	-0.248 (0.198)	-0.216 (0.200)	-0.245 (0.199)	-0.250 (0.201)	-0.243 (0.218)
Age	-0.128 (0.218)	-0.081 (0.220)	-0.129 (0.219)	-0.080 (0.222)	-0.076 (0.224)
International	0.063 (0.101)	0.069 (0.102)	0.060 (0.102)	0.090 (0.102)	0.090 (0.103)
Leftcensor	-0.162 (0.380)	-0.239 (0.388)	-0.173 (0.381)	-0.232 (0.403)	-0.292 (0.416)
Competence: Visual	0.037 (0.105)	-0.045 (0.119)	0.027 (0.105)	-0.044 (0.119)	-0.053 (0.122)
Competence: Product	-0.006 (0.070)	-0.084 (0.086)	-0.004 (0.069)	-0.070 (0.087)	-0.068 (0.090)
Competence: Environmental	-0.009 (0.046)	-0.070 (0.058)	-0.016 (0.047)	-0.096 (0.060)	-0.101 (0.062)
Competence: Socio-analysis	0.188** (0.061)	0.143* (0.070)	0.183** (0.061)	0.124+ (0.070)	0.127+ (0.071)
Number of Competences		0.753* (0.377)		0.759* (0.372)	0.774* (0.373)
Gain in competence			-0.060 (0.051)		
Industrial scope				2.602* (1.280)	2.632* (1.285)
Awards					-0.314 (0.438)
Awards <sup>2</sup>					0.129 (0.162)
Constant	-14.256*** (3.941)	-14.573*** (3.929)	-13.855*** (3.951)	-16.228*** (4.028)	-16.196*** (4.022)
Chi <sup>2</sup>	28.01	29.39	29.43	34.19	34.25
Observations	893	893	893	893	893
Number of agencies	180	180	180	180	180

**FIGURES**

**Figure 1. Evolution of design agencies' logics, 1989-2004.**



## APPENDIX 1. List of interviewees (for more details, see Szostak, 2006)

Name	Status	Date, city
Jack Lang	Former Minister of Culture and Education.	February 18, 2004, Paris.
Françoise Jollant-Kneebone	Past director of ENSCI.	October 6, 2003, Paris.
François Barré	Founder of Centre de Création Industrielle.	December 17, 2003, Paris.
Chantal Riols Anne-Marie Boutin	Manager at APCI. APCI.'s President	October 6, 2003, Paris.
Claude Mollard Marion Laporte	Director at the Ministry of Education. In charge of introducing design into French primary and high schools' curriculum.	December 16, 2003, Paris.
Agnès Lutz	Director in charge of design at Ministry of Industry.	October 7, 2003, Paris.
Joëlle Malichaud	Director in charge of design at Ministry of Culture.	October 9, 2003, Paris.
Paul Schmitt	Founder of regional design centers and CEO of " <i>Le Creuset</i> ".	December 15, 2003, Paris.
Marie-Marguerite Gabillard	Director of design center at Rhône-Alpes (CDRA).	July 8, 2003, Lyon.
Josyane Franc	Director of communication for Arts school at Saint-Etienne city hall.	Januar 6, 2004, Saint-Etienne.
Eric Fache, Geneviève Sengissen, Christian Roche	Designers and members of FEDI (professional union).	September 3, 2003, Lyon.
Antoine Fenoglio	Designer and CEO of <i>Sismo</i> agency.	February 6, 2004, Lyon.
Jean-Charles Gaté	Design journalist at « DesignFax ».	December 17, 2003, Paris.
Manfred Hubert	Independent designer.	October 23, 2003, Lyon.
YoKaminagai	Design manager at RATP.	February 18, 2004, Paris.
Muriel Rajaut	Director of Branding and Packaging service at <i>Desgrippes &amp; Gobé</i> agency.	December 16, 2003, Paris
Christophe Rebours	Designer and CEO of <i>In Process</i> agency.	February 17, 2004, Susrènes.
Roger Tallon	Designer.	October 9, 2003, Paris.
Jean-Pierre Vitrac	Designer and CEO of <i>Design Pool</i> agency.	February 16, 2004, Paris.
Raymond Guidot	Historian of design.	February 16, 2004, Paris.
Jocelyn de Noblet	Historian of design.	February 17, 2004, Paris

### List of interviews of 13 Montreal design experts (April, 2005).

Sylvie Berkovicz	Design journalist at TV5.	April 19.
Louis Brassard	Counsellor of industrial development at the Ministry of Economical and Regional Development.	April 21 (by phone).
Marc Choko	Teacher at UQAM.	April 11.
Michel Dallaire	Designer and CEO of <i>Michel Dallaire Design Industriel</i> .	April 22.
André Desrosiers	Independent designer.	April 13.
Michel Foti	Integrated designer into Sistemalux.	April 6.
Ginette Gadoury	Director of SIDIM.	April 21.
Charles Godbout	Independent designer.	April 6.
Marie-Josée Lacroix	Commissioner of design at Montréal.	April 18.
Sylvie Laniel	Design counsellor of the Ministry of Quebec local and regional affairs.	April 11.
Claude Mauffette	Designer and CEO of <i>Claude Mauffette Design Industriel</i> agency.	April 14.
Cédric Sportes	Independent designer.	April 5.
Pierre Vanier	Counsellor of the Ministry of Quebec local and regional affairs.	April 19.

## APPENDIX 2. Historical context of French industrial design

Four characteristics deserve mention to describe how the French industrial design field evolved during the previous decades. First, whereas industrial design was long essential to American manufacturers, in the 1960s French firms and centralized-economy's decision-makers still considered that "industrial design was for rich countries. It was not our business" (R. Tallon). Many viewed industrial design as a luxury rather than an investment. As a consequence, during France's Glorious Thirty (1945-1975), industrial design was not really recognized as a legitimate profession. Second, despite efforts to emphasize the importance of design for French industry, industrial design remained confined to the artistic sphere of society. In the 1970s, the French Design Center (*Centre de Création Industrielle*)<sup>7</sup> was created and based at the Pompidou Centre in Paris as part of the Museum of Modern Art. François Barré, its founder, likes to remind: "As Churchill said, design is an economic tool for the conquest of markets".

Third, the impetus for the French industrial design industry originated in the 1980s. Loyal to a centralization policy, the newly elected president, François Mitterrand (1981 to 1995), and his hyperactive culture minister, Jack Lang (1981-1986; 1988-1993), developed and sustained the concept of art and design. As Jack Lang explained: "I think that the government has to set a good example. France must support creators and manufacturers, it has to link economic invention to industry". Hence, President Mitterrand ordered the renovation of the Presidency buildings and the Château de l'Elysée; he appointed Philippe Starck and J-M.

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<sup>7</sup>Interestingly enough, design has long been translated as creation; only recently has the term design been accepted as such. François Barré, a student of the prestigious Ecole Nationale D'Administration, and François Mathey, a commissioner of the Museum of Decorative Arts in Paris (1955-1986), wanted to duplicate the British Design Centre of London, which had been operating for almost three decades. As François Barré said during our interview: "In 1977, it was the real introduction of industrial design in France through the yearly exhibitions around the theme: "WHAT IS INDUSTRIAL DESIGN?". According to the scholar and famous historian of industrial design, Raymond Guidot, "At these exhibitions, there were the French designer Roger Tallon, but also the American designer Charles Eames, the Italian Joe Colombo, the Dutch designer Verner Panton, and the German Fritz Eichler, himself responsible for design policy at Braun. All the main foreign cultural influences were present."

Wilmotte as project managers. The French government also created the first schools of design, such as Ensci,<sup>8</sup> in 1982. One year later, the Agence de Promotion de la Création Industrielle<sup>9</sup> (APCI) was launched jointly by the Ministry of Culture and the Ministry of Industry.

Fourth, after the centralized impulse of the 1980s, the Ministry of Industry, in 1991, sponsored ten regional design centers to trigger a new dynamics (Paul Schmitt). Throughout the 1990s, these centers sought to sensitize and organize regional manufacturers, designers, and institutions. Nevertheless, most of them have since vanished, except in the Rhône-Alpes area. There, in 1998, the Saint-Etienne municipality organized the International Design Biennial, an event where schools of design from all over the world exhibited the results of their creative explorations of human activities (sitting, sleeping, eating, driving, working, etc.). Moreover, in 1999, a design union, the Fédération des Designers Industriels (FEDI), was founded in Lyon. Eric Fache, FEDI president, defined its goal to “structure and organize the design profession,” due to the lack of formal rules at the national level. Today, deontological guidelines determine a designer’s relationship with clients and competitors.

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<sup>8</sup>“Ecole Nationale Supérieure de la Création Industrielle” (*National Graduate School of Industrial Design*).

<sup>9</sup>“Agence de Promotion de la Création Industrielle” (*Bureau of Industrial Design Promotion*). Today, APCI is a nonprofit organization supported by professionals, promoters, and education specialists, and is a member of ICSID.

### APPENDIX 3. Coding of expertise

#### *Coding Form for "Visual Design" - 2D*

If only multimedia (web, Internet, sites...)	2pts
If only point of sale promotional items (posters...)	2pts
If only visual editing	3pts
If only signs, signals, 'signaletique'	4pts
If only packaging 2D (label, colors, ...)	4pts
If only packaging 2D + "in relief"	5pts
If no details given on the practice	-1 pt
If « visual design» or «graphical design» with additional competences : graphical chart, logo, color, institutional communication ...	6pts
If visual design + one among {packaging ; multimedia ; promotional items ; visual editing}	7pts
If visual design + two among {packaging ; multimedia ; promotional items ; visual editing}	8pts
If visual design + three among {packaging ; multimedia ; promotional items ; visual editing}	9pts
If visual design + four among {packaging ; multimedia ; promotional items ; visual editing}	10pts

#### *Coding Form for Product Design– 3D*

If only product conception	3pts
If only product editing	3pts
If only packaging +3D	5pts
If no details given on the practice	-1 pt
If only packaging 3D – with additional information on practice like conditioning, formating, restyling...	6pts
If « product design» or « volume » with additional practices like : shape, prototype, mass product, industrial design	7pts
If product design + one among {packaging ; conception ; editing}	8pts
If product design + two among {packaging ; conception ; editing}	9pts
If product design + three among {packaging ; conception ; editing}	10pts