

CONTRASTING TWO PERSPECTIVES ON ORGANIZATIONAL CHANGE: INSTITUTIONAL VERSUS COMPLEMENTARITY THEORY

1 INTRODUCTION

Among the most controversially debated issues by organization theorists are how far-reaching change is possible in the configuration of organizations, and the challenges involved therein (Amis, Slack, & Hinings, 2004; Gersick, 1991; Pettigrew, Woodman, & Cameron, 2001). Proponents of different theoretical perspectives and approaches concur that organizational inertia is more widespread than change (e.g. Miller & Friesen, 1984; Miller & Chen, 1994). However, there is substantial disagreement with respect to the question of whether configuration change in organizations is more likely to take place as a long-term, continuous process or rather as a swift, discontinuous one. Similarly, various authors disagree about the success chances of organizational change. Success can be defined as the probability that an organization emerges out of the change process with a new configuration that enables it to compete in its environment in a state of stability (and hence, inertia) for an extended period of time. These issues are of eminent importance for both managers and public policy makers who need to decide whether, and to what extent, they should invest in the adaptation of organizations that are successful within a particular socio-economic environment, as these conditions change.

The purpose of this paper is to compare and evaluate two theoretical perspectives on organizational configuration and change that have reached prominence since the early 1990s, but have not been related to each other so far, namely the institutional perspective represented by Royston Greenwood, Bob Hinings and others, and the organization economics perspective of Paul Milgrom, John Roberts and their colleagues. We choose these two perspectives for

our comparison, as they – despite their profound differences in approach and language – arrive at strikingly similar conclusions with respect to their description of organizations as coherent configurations of design elements (such as their structural features, strategies, values and norms, and so on). These elements relate to and mutually reinforce each other. At the same time, the two theoretical approaches lead to markedly different predictions about the possibility of radical organizational change, and about the form (duration, orderliness, sequencing) of such change processes. Hence, we aim at analyzing the similarities and differences between the two theoretical perspectives on organizational change, and evaluate them.

The structure of the paper is straightforward. In sections two and three, we discuss the institutional perspective and the complementarity perspective on organizational change respectively. Within each of these sections, we first provide an overview of how, in the perspective concerned, the phenomenon of relatively stable organizational configurations is approached. Thereafter, we outline the perspective's main argument with respect to the nature of organizational change, the likelihood of change and the conditions under which it occurs, and the challenges involved therein. In the fourth section, we provide a summary of the institutional and the complementarity perspective on organizational change, and discuss their strengths and weaknesses. Section 5 concludes the paper.

2 THE INSTITUTIONAL PERSPECTIVE OF ORGANIZATIONAL CHANGE

Historically, institutional theory has drawn on sociological approaches examining “the isomorphism of organizational fields and the establishment of institutional norms” (Kondra & Hinings, 1998: 744; Slack & Hinings, 1994). In recent years, a major focus of institutional theory has been on the explanation and typology of archetypes and the analysis of the change process (Amis, Slack, & Hinings, 2002; Cooper, Hinings, Greenwood, & Brown, 1996;

Greenwood & Hinings, 1993; Greenwood & Hinings, 1996). Recent studies (Pinnington & Morris, 2003; Amis et al., 2004) have sought to test the patterns of organizational change predicted by institutional theory empirically.

Static perspective

Institutional theory uses the notion of “archetypes” in order to describe configuration patterns in the central elements of organizations that tend to reoccur across large numbers of organizations in any given sector. The elements belonging to an archetype can be subsumed under three categories: *interpretive schemes*, *organizational systems*, and *organizational structures*. First (and most importantly), *interpretive schemes* are the set of values, ideas and beliefs that form the basis for an organization’s governance and its primary objective (e.g. professional versus commercial orientation) (Greenwood & Hinings, 1988; Greenwood & Hinings, 1993). Second, *organizational systems* are defined as those features of an organization that facilitate its administrative and managerial control. Cooper et al. (1996: 626) distinguish three dimensions of an organization’s control system: Its strategic control (degree of rationality and interaction in the decision making process), its marketing-financial control (specificity of targets, tolerance of accountability and time orientation [i.e. short, medium or long term orientation]) and its operating control (range and primary focus of managerial involvement as well as level of centralization). Third, *organizational structures* are analyzed with regard to their degree of differentiation (level of and criteria for specialization) and integration (use of integrative devices, rules and procedures). Among these three categories, institutional theorists emphasize the importance of the interpretive scheme as the “glue” that holds the various elements in an organizational configuration together. Norms and values guide the behaviors of the organizations’ members, inform their language, and imbue meaning to organizational structures, processes and strategies.

The notion of archetypes has primarily been studied in the context of professional services (Cooper et al., 1996; Greenwood, Hinings, & Brown, 1990; Greenwood & Hinings, 1993; Greenwood & Lachman, 1996; Richter & Schröder, 2006). Institutional theorists distinguish between two major archetypes. First, the “Professional Partnership” (P2) archetype is characterized by an interpretive scheme that entails the fusion of ownership and control and a strong emphasis on professional principles. Furthermore, P2-type firms can be identified by a high level of consensus-driven decision making, emphasis on individual accountability, and low centralization. From a structural point of view, P2-type firms show a low level of specialization and a limited use of rules and procedures (Greenwood et al., 1990; Dickmann, Graubner, & Richter, 2006). Second, “Managed Professional Businesses” (MPB-type firms), are often characterized by the separation of ownership and control. Their main business objectives are of a financial nature. MPB-type firms emphasize a more directive decision-making style, a high specificity of financial and market targets, and greater centralization as compared to P2-type firms. Additionally, the organization structures of MPB-type firms show a higher degree of specialization and differentiation. Formal rules and procedures play a higher role than is the case in P2-type firms (Cooper et al., 1996: 630).

The notion of “archetypes” in the institutional perspective draws on earlier theoretical approaches that had chronicled the reoccurrence of coherent configurations of elements in the design of organizations (e.g. Weber, 1949; Mintzberg, 1979). Miller and Friesen found repetitive patterns of adaptations in their study of archetypes of organizational transition (1980a). Institutional theory reasons that the necessary coherence among the various elements of organizations, such as their systems and structure, limits the number of organizational configurations that may compete with one another at any given point in time (Pinnington & Morris, 2003: 86).

Dynamic perspective

Institutional theorists model the transition of firms from one archetype to another one as a process of “sedimentation” (Cooper et al., 1996: 635). As a consequence of changing interpretive schemes, this change process represents not as much a direct shift, but rather the “layering” of elements from the new organizational design on top of the old elements (Cooper et al, 1996: 623). Gradually, elements of the new archetype sweep away the residues of the old archetype. The visible organizational design is the result of changes in structures, environmental changes, and the adoption of new work practices (Cooper et al., 1996).

According to Greenwood and Hinings (1988), although change may happen frequently, it is not a random process. Instead, change occurs in the form of “change tracks”. These change tracks are “configurations of interpretive de-coupling and re-coupling” (Greenwood & Hinings, 1988: 303). While structures are “decoupled” from the formerly prevalent interpretative scheme and “re-coupled” to a new one, an organization with a different design type arises (Greenwood & Hinings, 1988: 307). As Amis et al. state, “tracks constitute the varying paths that organizations may follow, intentionally or not, as they move from one design to another” (2004: 17). While organizations move on particular paths or tracks, the direction of change is uncertain. Even though change occurs in change tracks, it cannot necessarily be expected to be linear and continuous. Instead, change is anticipated to be “discontinuous and even regressive” (Greenwood & Lachman, 1996: 569). Whereas planned change is assumed to most likely take place in the form of a linear transformation, other types of change may be characterized by oscillations and delays. Consequently, the result of a change process is either a “reorientation”, an “aborted excursion”, or an “unresolved excursion” (Greenwood & Hinings: 1988). Although it is not possible to predict the outcome of a change process, institutional theorists explain why organizations with similar “contextual crises” (i.e. similar situations of crisis with regard to firm level structures

and external pressures) are not likely to react by moving along the same tracks. From their point of view, the choice of the respective change track followed by an organization is a function of the compatibility between interpretive schemes, structures and systems (Greenwood & Hinings, 1988).

While incremental change, i.e. change which is compatible with the prevalent structures, can be expected to take place frequently (Romanelli & Tushman, 1994; Tushman, Newman, & Romanelli, 1986), the main track of organizations is assumed to be inertia according to the majority of institutional theorists (Miller & Friesen, 1980a; Miller & Chen, 1994). In this respect, change is hindered by cognitive, motivational and obligatory constraints from stakeholders inside and outside the organization (Tushman & Romanelli, 1985).

Major empirical contributions showing the existence of archetypes on the one hand, and examining the nature of change on the other, have been the studies by Cooper et al. on Canadian law firms (1996) and by Amis et al. (2004) on Canadian Olympic National Sport Organizations (NSOs). Studying the pace, sequence, and direction of change in the case of 36 Olympic NSOs, Amis et al. conclude that “rapid change throughout organizations is not only insufficient to bring about radical change, but [it] may even be detrimental to its outcome” (2004: 35). Therefore, they contradict earlier findings that change benefited from momentum which helped overcome inertia (Denis, Langley, & Cazale, 1996; Miller & Chen, 1994; Miller & Friesen, 1980b).

To summarize, according to institutional theory, far-reaching organizational change processes are set off primarily by changes in the interpretive schemes of organizations. Formerly prevailing ideas and values lose legitimacy and become discredited, eliciting ripple effects on organizational systems and structures. These change processes take place in the form of change tracks through which the organization passes from one archetype to another

one, as elements of the new design are layered on the gradually fading old design. However, not all change processes end in a successful reorientation that would allow the organization to revert to a state of inertia. Organizations may also reverse their move towards a new configuration and return to their old state (“aborted excursion”), or lose their adherence to an identifiable archetype (“unresolved excursion”). Nevertheless, institutional theory views successful change in the sense of the transition of an organization from one archetypical configuration to another one as possible. Change of this nature is taken to be a gradual process that occurs over an extended period of time. While the *result of this change process* may be radical (in the sense that a new archetype replaces the old one), the *process of change* is not described as revolutionary or abrupt.

3 THE ORGANIZATION ECONOMICS PERSPECTIVE OF ORGANIZATIONAL CHANGE

Since Williamson’s (1975) study on *Markets and Hierarchies*, economists have broadened their focus beyond the analysis of exchange relationships among firms, to include the nature of economic activity within firms and other types of organizations. In particular, economists have begun to question Chandler’s (1962) claim that organizational structure follows strategy. A central advance in this area has been the study of complementarities in the design of organizations, spearheaded by Stanford economists Paul Milgrom and John Roberts and their colleagues (Milgrom, Qian, & Roberts, 1991; Milgrom & Roberts, 1992; Milgrom & Roberts, 1995a). The notion of complementarities can be applied across a broad spectrum of organization types, such as macro-economic systems (Milgrom & Roberts, 1994), business organizations (Milgrom & Roberts, 1990b), and smaller-scale organizations such as teams. While the work of Milgrom and Roberts is largely theoretical, evidence on the importance of complementarities in the design of business organizations has been provided by Ichniowski et

al. (1997) in their study of human resource practices in the steel industry, and by Whittington et al. (1999) in a paper on change and complementarities in a changing competitive environment. Athey and Stern (1998) have analyzed the challenges involved in testing the complementarity argument empirically and have provided suggestions for research designs that lend themselves to this purpose.

Static perspective

The notion of complementarity is defined as a beneficial interplay of organizational design elements where “doing more of one thing increases the returns to doing more of the other” (Milgrom & Roberts, 1994: 6). More formally, a group of elements (such as activities or practices) are called complements if doing more of any subset of them increases the returns to doing more of any subset of the other elements. In economic vernacular, complementarities exist when the mixed-partial derivatives of a pay-off function are positive: marginal returns to one variable increase in the level of the other variables. An important feature of complementarities is their symmetric nature. Thus, if doing more of activity *a* raises the value of doing more of activity *b*, then increases in *b* also raise the value of increasing *a*. The design elements in question are broadly defined to include all characteristics of organizations that facilitate its present and/or continued functioning, such as their governance systems, processes and policies, resources, objectives, guiding principles, and so on.

Complementarities may also exist between the different elements of an organization and its environment. Hence, organizational design elements may become key strategic assets if they optimally relate to a particular market and competitive environment (Porter, 1996). In the view of complementarity theorists, organizations are made up by complementarities which ensure their existence and sustainability in their respective markets (Roberts, 2004).

Complementarities come into existence as companies are set up and initial decisions

are made about its organizational design and the environment it is planning to compete in.

Due to the importance of complementarities between different design elements, firms are fragile systems which can easily be adversely affected by a changing environment and/or by changes in their organizational design.

Milgrom, Roberts and their co-authors use the mathematical study of supermodularity on lattices in order to develop a formal model of the complementarity argument (Athey, Milgrom, & Roberts 1998). Supermodularity is the mathematical equivalent to the statement that “the gain from increasing every component ... is more than the sum of gains from individual increases” (Milgrom & Roberts, 1994: 10; Milgrom & Roberts, 1990a). However, the mathematical notation does not provide a theory of the conditions under which complementarities occur, or of the value that they provide. While the fundamental contribution of complementarity theory is that it enables economists to model complex production systems as something more than the sum of their input factors in a mathematically rigorous manner, a weakness is its failure to derive clear predictions about which design elements will, under given environmental conditions, exhibit complementary features.

The analysis of complementarity can be applied to a variety of systems. Colombo and Mosconi (1995) use this approach in order to analyze the relationship between the use of particular technologies and learning from experience with previous technologies in the Italian metalworking industries. Arora and Gambardella (1990) examine complementary linkages among different firms in the biotechnology sector. In addition, the concept of complementarity can also be applied in the context of the analysis of macroeconomic systems. Milgrom & Roberts (1994) use the example of the Japanese economy in the 1980s to describe how the interplay of different elements such as lifetime employment guarantees, seniority based promotions and Kaizen contributed to the success of the Japanese economy until its crisis in the 1990s. While the piecemeal adoption of individual features of the Japanese

system in Western economies had resulted in failure, the various elements of the Japanese system altogether proved to be decisive for the success of the Japanese economy. However, with the global economic environment changing, these complementarities also became a major reason for the failure of the Japanese system over the past decade, as complementarities hinder early adaptation. Another example is Gates, Milgrom & Roberts' (1996) application of complementarity theory to the transition process from socialism to capitalism in Eastern European countries since the early 1990s. While piecemeal economic reform policies led to failure (e.g. the looting of state assets in the phase of nomenklatura privatization in Poland in the 1980s), more comprehensive reforms taking account of the inherent complementarities between managerial incentives in state-owned enterprises, privatization, price liberalization, and policies to promote competition proved to be far more successful.

Dynamic perspective

Complementarity theorists tend to regard change to be a difficult and risky process, as the performance of the organization may first have to undergo a trough, before (potentially) reaching a higher level than that which existed prior to the temporary dissolution of complementarities. In their description of supermodularity on lattices, Milgrom & Roberts state that "until all of the features of the new pattern have been implemented, the performance of the system may be much worse than in the original position" (1994: 12). Consequently, shifting one feature from a current system towards another system requires shifting all of them at the same time. Change needs to be "coordinated, multidimensional, and large" (Milgrom & Roberts, 1995b: 248). As organizational actors – due to factors such as uncertainty, limited foresight, and so on – do not understand the (potential) complementarities in the new configuration they aim to attain as well as they understand their current system, change is often of an experimental nature. The experimental process is disruptive, hence it

adversely affects the firm's performance. While not directly referring to the complementarity approach, Beinhocker (1999: 98) develops a similar view on change, using the metaphor of organizations that move through a "foggy landscape". In this landscape, organizations cannot see far ahead. Instead, "mountain tops" (e.g. best practices) are covered by "clouds" that only depart if an organization accidentally arrives at such a mountain top. Complementarity theory predicts little change within organizations that entail tightly linked elements. A reduction in performance, as a consequence of the onset of a change process, is expected to frequently lead to a situation where the respective company gives up at the start of the change process thus never reaching "the top of the mountain" (Milgrom & Roberts, 1994).

To the extent that change does occur, complementarity theorists expect it to be radical and swift. It can most likely be expected on an industry level through the process of "creative destruction" (Schumpeter, 1934). Competitive pressure forces the firm to make a choice between either restoring the original model, or accelerating the move to a different model. In the case of changes in the environment, the complementarity approach suggests that companies look for features which complement their existing elements which results in path dependence (Milgrom & Roberts, 1994: 13).

The complementarity approach suggests a different change process than the one laid out by institutional theorists. The layering or sedimentation of design elements shifting a company from one archetype to another is not expected to be successful. Instead, piecemeal change in the form of sedimentation is expected to worsen the performance of companies due to the dissolution of existing complementarities. A successful layering of design elements that would shift the old archetype to the new one is not expected to occur, because firms tend to back away from their change initiatives as the first performance effects are negative. Instead, organizations will either change radically to establish a new design characterized by complementarity features, or vanish from the market, at least under competitive conditions.

In sum, complementarity theory emphasizes the economic value generated by the relationships among various organization design elements. The opportunity to capture (some of) this value provides a powerful incentive for economic actors to invest in the establishment of complementary structures, policies, practices, and other organizational design elements. At the same time, it also provides disincentives to give up an established system in favor of a new system whose value is yet unknown (and possibly unknowable from the outside), in particular as incremental changes to the system, e.g. through adapting individual practices, are likely to result in decreased performance, at least for the transitional period. Transformational organization change is likely to be induced by environmental pressures which lead to a dissolution of the complementarities in an organizational system, and hence an important source of the organization's competitive advantage. However, even under such pressure, organizations are often held back from change, as change requires the destruction of the old organizational system in order to make way for the establishment of a new system of complementary design elements. If transformational change occurs, it is likely to be discontinuous and swift, yet *ex ante* the probability that the organization arrives at a new system of complementary elements *ex post* is limited. Therefore, complementarity theorists take a skeptical view of organizational-level change. From their perspective, economic change is more likely to result from the replacement of old forms of organization by new ones, rather than from the successful transformation of existing organizations.

4 DISCUSSION

In section 2 and 3, institutional theory and complementarity theory have been discussed in detail. Despite profound differences in language, analytical approach, and disciplinary background, the two theories provide converging views on the existence of recurring configurations of specific organizational characteristics. Empirical research produced by

scholars from either tradition supports the existence of such configurations (e.g. Greenwood & Hinings, 1993; Ichniowski et al., 1997; Whittington et al., 1999). By identifying particular typologies, such as the P2 / MPB typology that offers a fair basis for comparing different configurations of professional service firms, institutional theory goes significantly beyond complementarity theory, which fails to make predictions about which organizational design elements will exhibit the greatest complementarities with which other elements. The strength of the complementarity approach is that it offers a holistic yet mathematically rigorous approach to analyzing organizational coherence, thus providing an economics perspective for understanding organizational designs of firms. In addition, it represents a valuable tool for analyzing the organizational basis of the competitive advantage of firms (Roberts, 2004).

Both institutional theory and complementarity theory view the configurations which they identify as relatively stable over time. According to both perspectives, organizational inertia is more prominent, and more widespread, than organizational transformation and change. In addition, both perspectives identify the stability of organizational configurations as valuable. Nevertheless, they recognize the need for organizational change, as the internal and/or external conditions under which the configurations first developed shift.

Despite these similarities, the two perspectives come to different conclusions with respect to the likelihood and the shape of transformational change processes, and the probability of their success. A comprehensive summary of the perspectives of institutional theory and of complementarity theory on organizational change can be found in Table 1.

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The comparison between institutional theory and complementarity theory yields two main differences. The first of these differences concerns the pace and disruptiveness of transformational organizational change (to the extent that it occurs). According to institutional theory, transition from one archetype to another one takes place by a gradual process of

“sedimentation”, i.e. the layering of one archetype on another one. In contrast, according to complementarity theory, slow, piecemeal change is not efficient; it can even be harmful for organizations (Milgrom & Roberts, 1994; Gates, Milgrom & Roberts, 1996). In addition, there is considerable doubt that organizational change takes place in such a systematic, orderly manner as the metaphors typically employed in institutional theory appear to suggest: Although institutional theory acknowledges the fact that organizational change may not be linear (Amis et al., 2004), its use of the concept of ‘change tracks’ conjures images of regularity and recurrence which are in line with *constructive* processes. In contrast, complementarity theory emphasizes the notion that before new complementarities can be established, old ones need to be dissolved. Therefore, organizational change processes are at least initially characterized by their *destructiveness*, while the new system (that would have to be constructed) may not yet be in sight.

From our point of view, the extant empirical evidence on the pace and sequence of organizational change is more in line with the view that fast-paced organizational change prevails over slow and piecemeal adaptation of new organizational designs (e.g. Romanelli & Tushman, 1994; Whittington et al., 1999). Nevertheless, researchers in the institutional tradition have come to different conclusions. Among others, Amis et al. (2004) found that the rapidity of organizational change processes is negatively related to the likelihood of their success. However, it has to be pointed out that the analysis by Amis et al. is based on a small-sample study in a rather specific sector, namely Canadian National Sports Organizations. Other empirical studies in the field of institutional theory (Greenwood & Hinings, 1993; Cooper et al., 1996; Pinnington & Morris, 2003) suffer from similar shortcomings. Further research is needed in order to confirm whether their study can be replicated over a larger sample of organizations, in particular in the private sector where external competitive pressures are likely to force a fast pace of organizational change. Managerial experience also

seems to confirm our proposition that organizations that aim at implementing change, should do so swiftly and radically, rather than through a long, protracted process (e.g. Rogers, Shannon, & Gent, 2003; Schaffer & Siegal, 2005).

The second area of differences between institutional theory and complementarity theory concerns the perceived ease with which organizations engage in the change process, and the expected likelihood of its success. Both theories emphasize the ties between different organizational design elements. From our point of view, the strength of these ties is a central reason why their dissolution should prove difficult. In addition, we argue that complementarity theory's pessimistic view regarding the possibility of "successful" organizational change is more consistent with empirical evidence (Ichniowski et al., 1997; Whittington et al., 1999). We concur with complementarity theorists as well as with scholars from other theoretical traditions (e.g. Gersick, 1991), who anticipate radical change in the configuration of organizations to come primarily from the rapid replacement of one organization type by another one, rather than through slow, piece-meal organizational adaptation as proposed by Amis et al. (2004).

An overview of influential empirical studies examining organizational configurations and the nature of organizational change can be found in Table 2.

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In addition to the two differences outline above, institutional and complementarity theory differ in other respects. For example, the focus prevalent in institutional theory on interpretive schemes leads the researchers working in this tradition to underestimate the role of external factors in initiating (or averting) change. While internal factors such as the change in the CEO position of a firm are recognized as factors that may trigger or accelerate the change process, external factors have received insufficient attention by institutional theorists. For instance, product innovations and changes in the competitive landscape will frequently

make change unavoidable and are thus major reasons for change initiatives. Further needs for radical change may result from regulatory, legal or other changes. While these changes may (also) alter interpretive schemes, a major change of interpretive schemes is not necessary to make radical change happen in companies affected by changes in important regulations or tax laws. An example for outside regulatory pressure initiating rapid and far-reaching change has been the recent law requiring the close-down of all nuclear power plants in Germany. Consequently, German energy utilities will have to undergo significant changes in the next few years. Similarly, the illegalization of tobacco or significantly higher taxes on tobacco products would lead to dramatic changes within tobacco corporations.

5 CONCLUSION

In this paper, we have compared the institutional perspective on organizational change with the complementarity perspective derived from organization economics. We conclude that institutional theory provides a helpful typology of organizational configurations, using the notion of archetypes. It also makes fairly specific predictions regarding the process of organizational change, as organizations transform from one archetype to the next.

Nevertheless, we have cast doubt on the theoretical strength of the institutionalists' perspective on organizational change. In accordance with the predictions of complementarity theory, organizational change is unlikely to take place in the form of an extended, continuous process. In particular in tightly linked organizational systems, the complementarities among different design elements imply that a dissolution of these complementarities results in a decrease in the performance of the organization's performance. Firms need to go through these "performance troughs" before reverting to higher performance levels, which they only achieve if they succeed in implementing a new system of complementary design elements. However, as the characteristics of this new system are largely unknown to the key decision

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makers in the old system, the path to establishing the new system is hard to chart in advance. Therefore, engaging in change is risky. In less tightly linked systems, organizational change will be easier, as the organization is not held back by the complementarities in its system to the same extent as is the case in more tightly linked systems. However, unless organizations are pushed towards change by powerful forces, fine-tuning the existing system (in order to fully exploit the value of the complementarities that it embodies) is an entirely rational option for decision-makers.

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TABLES

TABLE 1

Comparison of institutional theory and complementarity theory

	Institutional theory	Complementarity theory
<i>Main unit of analysis</i>	Archetypes (defined by interpretive schemes, systems and structures)	Complementarities among organization design elements
<i>Trigger for change process</i>	Formerly prevailing ideas and values lose legitimacy and become discredited (i.e. change of interpretive schemes)	Dissolution of complementarities in consequence of internal or external (e.g. technologies, markets, competition) changes; primary trigger assumed to be industry-wide need for change
<i>Nature of change process</i>	Sedimentation (the transition from one archetype to another one through the layering of elements of the new on the old design), change in tracks (“interpretive decoupling and re-coupling”)	Organizations look for features which are complementary with their existing elements; difficult process where the performance of a firm has to undergo a trough before reverting to an adequate level
<i>Speed/magnitude of change process</i>	While change can be a quick disruptive process, it is generally expected to be a slow, non-radical layering (sedimentation) process	While change does not need to be sudden, if it occurs, it will be radical; slow, peace-meal change is expected to adversely affect a company’s performance
<i>Direction of change process</i>	Even though planned change is assumed to be mostly a linear process, change tracks can also be “discontinuous and even regressive”	No predictions about direction of change given
<i>Viability of change</i>	Mostly inertia expected; however, generally change possible if there are adjustments to the prevailing interpretive scheme	Organizational change is expected to be quite difficult; mostly inertia expected within organizations
<i>Result of change process</i>	Reorientation towards new archetype, aborted excursion, or unresolved excursion	New set of complementary design elements; otherwise failure and replacement (“creative destruction”)

TABLE 2**Major empirical studies examining organizational configurations and the nature of organizational change**

<i>Study</i>	<i>Main research question addressed</i>	<i>Dependent variables</i>	<i>Independent variables</i>	<i>Success criteria</i>	<i>Sample</i>	<i>Main findings</i>
Amis et al. (2004)	What characterizes successful radical change?	Pace, sequence, and linearity of change	Level of specialization, formalization, and centralization of organizations	Transition to a presumably superior archetype	36 Canadian National Sport Organizations; 1984-96	<ul style="list-style-type: none"> • Rapid change negatively affects the chances of a beneficial change process • Early changes to high impact elements increase the chance of success • Linear transformations are unlikely
Greenwood & Hinings (1993)	Is it possible to identify specific archetypes of firms? Do firms tend to move toward archetypal coherence?	Archetypes	Structures, human resource systems, & decision systems	Identification of distinctly different archetypes and support that organizations tend to move towards those	24 British municipal government organizations; 1969-1982	<ul style="list-style-type: none"> • Existence of stable organizational configurations ('archetypes'); organizations adopt archetypical features • Inertia prevails over movement between archetypes
Ichniowski et al. (1997)	Do differences in human resource management (HRM) practices have a significant effect on company success?	Uptime of steel finishing lines	Configuration/ system of human resource practices in use	High uptime of steel finishing lines	36 steel finishing lines owned by 17 companies in the US	<ul style="list-style-type: none"> • Organizational success is influenced by systems/ complements of HRM practices • Piecemeal changes of HRM practices have little positive effect

5. Evolutionary perspectives in global management knowledge

<i>Study</i>	<i>Main research question addressed</i>	<i>Dependent variables</i>	<i>Independent variables</i>	<i>Success criterion</i>	<i>Sample</i>	<i>Main findings</i>
Miller & Friesen (1980b)	How does change occur within organizations?	Sequence of change	Changes in environment, structure, strategy making	Identification of simultaneous continuity and/or reversals of variables	26 companies; longitudinal data covering at least 20 years of continuous firm history	<ul style="list-style-type: none"> • Organizations undergo periods of “momentum” and periods of “revolution” • Revolutions occur with significantly high frequency
Romanelli & Tushman (1994)	What are the most important factors for fundamental organizational transformations?	Magnitude of change	Changes in strategies, structures, and power distribution; changes in market share, environmental conditions and management	Completion of fundamental organizational transformation	25 minicomputer producers; observed over a three-year period (1967-69)	<ul style="list-style-type: none"> • Rapid and discontinuous change promotes radical organizational transformations • Small steps do not accumulate to result in radical change • Radical change is mostly influenced by changes in an organizations’ environment and top management
Whittington et al. (1999)	Are there patterns of interlinked clusters within organizations? Is systemwide change more beneficial than piecemeal change?	Market share	Changes in structures, processes, and organizational boundaries (e.g. outsourcing)	Financial performance	About 450 large and medium-sized firms throughout Western Europe between 1992-1996	<ul style="list-style-type: none"> • Clusters of complementary design elements which positively influence performance • Piecemeal changes yield little performance benefits