THE PROCESS OF ACCOUNTING CHANGE: INTRA-ORGANIZATIONAL DYNAMICS AND PATTERNS

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Introduction

Questions such as how single organizations manage the process of change and why only some of them are able to actually reach radical change are central in today's theoretical debate (Greenwood and Hinings, 2006).

In early contributions to organization theory, change was regarded as non-problematical, either as adaptation within the organization's life-cycle (Greiner, 1972; Quinn and Cameron, 1983) or as automatic response to the "fit" requirements envisaged by contingency theory (Burns and Stalker, 1961; Pugh et al., 1969). On the other hand, most theories, including resource-dependency (Pfeffer and Salanick, 1978), institutional (Meyer and Rowan, 1977), ecological (Hannan and Freeman, 1977) and punctuated-equilibrium (Tushman and Romanelli, 1985) theories, have pointed out that accomplishing change is problematic. Various factors, both internal and external to organizations, can actually foster or hamper the final result of change. The main limit of most theories of change is that they assume that organizations confronted by the same external pressures and context will respond in the same way (Greenwood and Hinings, 2006). Moreover, extant literature typically poses the emphasis on the dichotomy between exogenous and endogenous factors affecting change.

Little attention has been paid to account for the role played by the process and its dimensions (pace, sequence and stability) on the final results of change (Hinings and Greenwood, 2002, Pettigrew et al., 2001; Amis et al., 2004). The overarching and still unresolved question is, then, "not whether organizations can adapt, but the circumstances that enable or constrain them from doing so" (Greenwood and Hinings, 2006, pp. 830).

The issue and the importance of change have been long investigated also in relation with accounting systems and practices. Accounting is recognized to play a fundamental role in organizational change processes (Nahapiet, 1988; Carruthers, 1995; Chua, 1995; Libby and Waterhouse, 1996; Townley et al., 2003; Dambrin et al., 2007) and is central to public sector reforms started during the last decades (Olson et al., 1998; Lapsley, 1999). Why and how accounting evolves through time and within specific organizational settings has been addressed by an important body of literature and through different approaches. Some authors have adopted the lenses of contingency to mainly analyze the antecedents of change (Libby and Waterhouse, 1996; Baines and Langfield-Smith, 2003). Others have focused on social

and relational factors, such as culture (Bhimani, 1996; Williams and Seaman, 2001) and power (Oaks et al., 1998; Townley et al., 2003; Abernethy and Vagnoni, 2004), that shape change processes and results. Finally, institutional theorists have highlighted, although looking at single variables, how accounting change processes can be originated and shaped by internal and external stimuli (Cobb et al., 1995; Jacobs, 1995; Burns and Vaivio, 2001; Covaleski et al., 2003; Collier, 2001; Nor-Aziah and Scapens, 2007). Within this perspective, new-institutionalists focus on the role of environmental forces in shaping and constraining change (mainly as a result of regulative and normative pressures, see Covaleski et al. 2003, Tsamenyi et al., 2006, Ezzamel et al, 2007). Also in the public sector, given the outstanding relevance of regulation, change has been considered mainly as coming from external sources (Jones and Mellett, 2007, Erakovic and Wilson, 2005, Dent et al, 2004, Hammerschmid and Meyer, 2005, Kitchener and Whipp, 1995). On the opposite, old "institutional economics" has been more concerned with the importance of internal rules and routines in affecting the process of change (Burns, 2000; Burns and Scapens, 2000; Lukka, 2007, Nor-Aziah and Scapens, 2007). As discussed in more details in the papers, available studies, however, don't fully account for both the different results in the change efforts at the organizational level under similar external pressures and processes, and, the similar results of such organizational efforts under different change processes and pressures.

In response to the shortcomings of previous theories, some new-institutionalists (Hinings and Greenwood, 1988, Greenwood and Hinings, 1996, Seo and Creed, 2002, Greenwood and Suddaby, 2006) point out that intra-organizational factors, such as organizational values, can generate and foster possible inconsistency or crisis and thus affect the actual outcome of change. They propose an intra-organizational approach to the study of change (Greenwood and Hinings, 1993; Han, 1994; Kossek et al., 1994; Beck and Walgenbach, 2005), which emphasizes organizations as coalitions of diverse professional interests, unlikely to respond uniformly to institutional processes although the choice set of options is institutionally and externally defined. Field level changes, such as changes in the market or regulatory environment, will be important in driving change. However, the micro-processes that occur within organizations are equally important in determining how the institutional environment is interpreted and how organizations respond. I propose that archetype theory and its intra-organizational model can help address the lack of understanding of existing organizational and accounting change literature. Archetype theory, in fact, allows focusing on how changes in structures and systems can lead to a change in ideas as well. It provides a comprehensive

model of change since other factors, such as power, resources, and resistance to change, are also incorporated by taking into account people's interest, commitment and power in the process of change. Archetype theory, moreover, reveals particularly helpful since it allows distinguishing between different outcomes (i.e. radical vs. incremental) and paces (i.e. evolutionary vs. revolutionary) of change.

Drawing on archetype theory and looking at processes of accounting change, I wish to better explain different results in the change efforts at the organizational level, even under similar external pressures and processes. In particular, I investigate both the intra-organizational variables affecting the different outcomes of change and the role played by the process of change itself and its different dimensions (i.e. pace, sequence and stability).

I draw here on the definition of radical change as the shift between different archetypes. An archetype is a set of structures and systems that reflects a single interpretive scheme, made up of ideas, beliefs and values (Greenwood and Hinings, 1993). According to this approach, change can happen differently on the basis of the levels involved (i.e. systems and structures and/or interpretive schemes). The consistency of change with the existing archetype gives rise to a differentiation between incremental or radical change. The former takes place when organizations modify their structures and systems, but they keep their interpretive scheme consistent with the existing archetype. Radical change, instead, involves a shift in both structures and systems and interpretive schemes from an existing archetype to a new one (Greenwood and Hinings, 1996). This proves particularly helpful in defining the different outcomes of accounting change. After the formal adoption of new accounting tools and practices, indeed, the outcome of accounting change (i.e. the type of archetypal change overall achieved at the end of the period under analysis) can be assessed by looking at the shift in related ideas, beliefs and values (i.e. interpretive schemes). Contrary to other theories, moreover, archetype theory also distinguishes change on the basis of the pace of upheaval and adjustment. Change is evolutionary, when it occurs slowly and gradually; it is revolutionary, when it happens swiftly and affects virtually all parts of the organization simultaneously (Greenwood and Hinings, 1996).

The empirical setting of the study is the Local Government (LG) field in Italy and Canada. In order to investigate the issue of accounting change, this setting is appropriate theoretically and interesting because: (i) it is well defined and its organizations are under similar legal status and have similar portfolio complexity of responsibilities; and (ii) since the 1990s LGs have undergone a continuous process of change directly affected by the New Public Management

(NPM) principles, aiming at making public organizations more business-like. NPM main components of reform concern governments' internal and external accounting systems (Hood, 1995; Pollit and Bouckeart, 2004; Olson et al., 1998; Steccolini, 2004).

This study develops in three steps: first, the existence of an accounting change paradox is pointed out, which cannot be fully explained by the traditional contingent and resource dependence perspective. Second, the process of change in accounting practices as an example of organizational change processes is examined. Organizations set norms of behaviors, rules of communication and values related to accounting systems and structures (Dent 1991): planning and budgeting activities, systems of hierarchical accountability, performance appraisal, budgetary remuneration all depend on accounting practices. "Inevitably, therefore, accounting is likely to be implicated in organizations' cultural systems" (Dent, 1991, pp. 706) and permeate organizational activities, culture and values. Accounting systems embody by themselves assumptions about the organization, its rationality, authority and time. As a consequence, processes of accounting change can be also seen as a particular example of organizational change affected by similar variables and dynamics. Lastly, factors leading to different results of accounting change even under similar external processes are investigated (Etherington and Richardson, 1994; Tsamenyi et al., 2006; Ezzamel et al, 2007). Each of these steps has been developed in a paper. The resulting three papers are outlined as follows.

The first paper *"What Role For The Antecedents Of Change? Unveiling An Accounting Change Paradox"* points out the existence of an apparent paradox in accounting change emerging from an empirical investigation of Italian LGs. Many studies have tried to explain the different results of accounting change and the factors affecting them. Previous literature, in particular, has mainly focused on the variables affecting accounting change through a contingent perspective, to analyze its antecedents (Libby and Waterhouse, 1996; Adler et al., 2000; Baines and Langfield-Smith, 2003; Al-Omiri and Drury, 2007), and sometimes on social and relational factors, such as power (Oaks et al., 1998; Townley et al., 2003; Abernethy and Vagnoni, 2004), that shape change results.

Structural contingency theory predicts that larger and more structured organizations are less likely to change (and to succeed in processes of change) because of their higher complexity (Pugh et al. 1963; Quinn, 1985; Haveman, 1993; Macdonald, 1995; Bloodgood, 2006). Resource-dependency theory predicts that organizations under financial stress are more prone

to change, whereas richer ones will more likely stay in their initial stable condition (Prahald and Bettis, 1986; Repenning and Sterman, 2002; Bloodgood, 2006). Yet, the two case studies are contrary to those predictions: Why should a bigger organization, with more complex characteristics and richer in terms of both financial and human resources, undergo a process of radical and revolutionary change? And why does a smaller organization, although under financial pressures, fail its process of accounting change?

A unidirectional approach, such as that of structural-contingency and resource-dependence theory, is not enough to build a comprehensive theory to interpret change results (Pettigrew, 1990a; Mowday and Sutton, 1993). Variations in contingencies or market forces are important in driving change, but cannot fully explain the final outcome of such change. The micro-processes that occur within organizations are equally important in determining how the institutional environment is interpreted and how organizations respond. Archetype theory (Greenwood and Hinings, 1993, 1996) can help explain this paradox. According to that, indeed, environmental pressures are filtered by organizations through an "internal" process of interpretation and attribution of meanings. This theory is also helpful for explaining different outcomes of accounting change since it distinguishes between change involving only structures and systems and change involving structures and systems and the related interpretive schemes.

The analysis is based on longitudinal case studies of two Italian LGs (Pettigrew, 1990b). The organizations were chosen because they have a long track record of experience with accounting change. Both have reputations for being innovative, since they have often been selected to take part in best practice projects promoted by the Italian Central Government and to join in benchmarking projects and networks. Despite their fame of being innovators, however, the two LGs showed different results in accounting change. This polarity pointed out the emerging paradox that is under study in this paper. The results show two patterns of accounting change: radical and revolutionary in the larger organization and convergent and evolutionary in the smaller one. These findings are not fully explained by contingencies, such as size and resource differences. Accounting change appears, in fact, to be prompted by external stimuli, but, once the change is prompted, processes of change are explained by the dynamics and patterns of internal conditions (Greenwood and Hinings, 1996). In this paper we elaborate upon these internal dynamics and their combination in order to explain the paradox and finally propose some propositions.

This paper represents the starting point of a broader study of accounting change and related archetypes. Archetype theory, in fact, proved to be a valuable approach to better identify and understand accounting change outcomes. The other two papers go deeper in investigating some of these aspects, i.e. the role of the process of change and of the intra-organizational variables in affecting the different final outcomes of change achieved at the organizational level, even under similar external pressures.

The second paper "*How the dimensions of the process of change interact over time: the case of accounting change*" attempts to address the lack of understanding in organization theory, concerning the role played by the process itself in affecting the final outcome of change. As an example of organizational change the study takes into consideration processes of accounting change in Italian and Canadian Municipalities, which, over the last decades, underwent a deep process of reform linked to the NPM and aiming at moving from the bureaucratic to the managerial archetype.

Organization literature points out that the process of change deals with the way organizational change is managed in terms of its structures and systems. This process can be defined through three main dimensions (Hinings and Greenwood, 2002, Amis et al., 2004): (i) the pace, i.e. how quick change occurs, (ii) the sequence, i.e. the order with which structural key elements change, and (iii) the linearity, i.e. the linearity or oscillation in the development of the process of change itself. Drawing on archetype theory and looking at both radical and incremental change in organizations, the paper aims to explore whether the characteristics of the followed process affect the probability of the final outcome of change. It suggestively examines: (i) whether a specific pace of radical change exists, i.e. a fast, revolutionary pace, sudden and global in the elements being changed, as opposed to a step-by-step process, (ii) whether and to what extent different outcomes of change are characterized by different (more or less) linear sequences of change in key-structures and systems, and (iii) how the three dimensions of the process of change (namely, pace, sequence and linearity) can possibly interact.

The study is carried out in three Departments of two Canadian and two Italian Municipalities, for a total of twelve cases, which underwent a full range of accounting changes during the last decade. Such changes aimed at shifting from a traditional model of public administration to a managerial one, i.e. from a model embedded in laws and formal norms, where the main focus of control was on procedures, financial resources and inputs (Weber, 1992; Borgonovi, 2005) to a model stressing decentralization and autonomy, market oriented management systems and output and outcome control (Pollit and Bouckeart, 2004; PriceWhatehouseandCooper,

2005). The sampling followed two main steps (Patton, 2002), i.e.: maximum variation sampling (Departments were selected to achieve variation in the resulting outcome of change and to diversify their performed activities), and stratified purposeful sampling (controlling for organizational size, only big Municipalities).

The analysis suggests that irrespectively of the pace and the linearity of the process, the right sequence of key-elements has to be followed in order to achieve radical change. Contrary to previous findings (Amis et al., 2004), the sequence of changes is not strictly related to the decision making tools, but rather to the purpose, the accountability structure and the focus of the systems being changed.

Finally, the third paper *"Disruptive vs. Sedimented processes: organizational dynamics and patterns fostering radical accounting change"* addresses the current lack of understanding in accounting literature in explaining different results of accounting change efforts at the organizational level, even under similar external processes and pressures (Covaleski et al. 2003; Etherington and Richardson, 1994; Tsamenyi et al., 2006; Ezzamel et al, 2007). By investigating multiple cases of accounting change, in particular, the purpose of the paper is to look at how intra-organizational dynamics combine with the patterns of the process (disruptive vs. sedimented) to actually foster or hinder the final outcome of change. Considering different patterns of the process of change, the paper investigates: (i) why radical change happens, and (ii) what the intra-organizational variables that drive a radical change are. To these aims, archetype theory (Hinings and Greenwood, 1998; Greenwood and Hinings, 1993, 1996) actually helps overcome some of the limitations that can be found in previous studies.

The paper analyses the cases of three Departments in two Italian and two Canadian Municipalities (a total of twelve cases). Their sampling was carried out in two main steps (Patton, 2002), i.e.: maximum variation sampling (Departments selected to achieve variation in the resulting outcome of change and to diversify their performed activities), and stratified purposeful sampling (controlling for organizational size, only big Municipalities). Over the last decade both countries carried out a process of reform aiming at shifting from a bureaucratic archetype to a managerial one. In particular, the processes of reform were inspired by the NPM principles (Hood, 1995; Pollit and Bouckeart, 2004) and directly affected Municipalities' accounting systems and structures. Processes of change can unfold following different patterns. At one extreme, according to punctuated equilibrium theory (Miller and Friesen, 1984; Tushman and Romanelli, 1985; Romanelli and Tushman, 1994;

Fox-Wolfgramm et al., 1998; Nadler and Tushman, 1989), change happens quickly and disruptively, while at the other, according to sedimentation theory (Clegg, 1981; Cooper et al., 1996; Morris and Pinnington, 1999; Malhotra and Hinings, 2005), change is characterized by sedimented attempts and layering of both old and new ideas and structures. While Italy underwent what can be defined a more disruptive process of change, Canada showed a more constant and layered pattern. Such cases represent a suitable field to investigate intra-organizational dynamics under a double perspective, i.e. both keeping the overall pattern of change constant (by looking at different outcomes of accounting change at the organizational level) and modifying it (with an inter-country perspective where the pattern of the overall process of change varies as well).

The analysis highlights that under both patterns of process, radical change is determined by the shift to a higher level of satisfaction with the new archetype and high and dispersed technical capabilities. In cases of sedimented process, radical change will more likely result from a shift towards reformative commitment, while disruptive change allows both competitive and reformative patterns. Power has a more dispersed configuration in disruptive radical change than in sedimented one. Finally, leadership supporting radical change is transformational in both cases, but substantive in the former case and symbolic in the latter. Looking at the different outcomes of change within the same type of process, the same intra-organizational dynamics respectively emerge at the organizational level. In particular, what really distinguishes radical from incremental change is the presence of a certain degree of satisfaction with the new archetype and (i) transformational substantive leadership in case of disruptive processes, or (ii) transformational symbolic leadership in case of sedimented processes. The cases also highlight the existence of other important variables fostering radical change, independently of the pattern of process, i.e. internal communication, personal characteristics, actual participation and type of activity. These variables emerge as enablers in the achievement of radical change.

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What Role For The Antecedents Of Change? Unveiling An Accounting Change Paradox

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Abstract

This paper addresses an apparent paradox in accounting change. On the one hand, structural-contingency theory predicts bigger and more structured organizations to be less likely to change due to their higher complexity. On the other hand, resource-dependence theory says that organizations under financial stress are more prone to change. So why should a larger and richer organization, with more complex characteristics, undergo a radical and revolutionary change? And why should a smaller one, though under financial pressures, fail its accounting change? Drawing on archetype theory, we claim that, rather than following a predefined path related merely to set contingencies and available resources, accounting change takes place differently as the result of the combination of external and internal organizational factors over time.

1. Introduction

The issue of accounting change, why and how accounting evolves through time and within specific organizational settings, has been addressed by an important body of literature (Libby and Waterhouse, 1996; Burns and Scapens, 2000; Townley et al., 2003; Covaleski et al. 2003; Ezzamel et al, 2007). Many studies have tried to explain the different results of change and the factors affecting them. Previous literature, in particular, has mainly focused on the variables affecting accounting change through a contingent perspective, to analyze its antecedents (see for example, Libby and Waterhouse, 1996; Adler et al., 2000; Baines and

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Langfield-Smith, 2003; Al-Omiri and Drury, 2007), and sometimes on social and relational factors, such as power (for instance, Oaks et al., 1998; Townley et al., 2003; Abernethy and Vagnoni, 2004), that shape change results.

This paper addresses a paradox in accounting change emerging from an empirical investigation of Italian Local Governments (LGs). Structural-contingency theory predicts that larger and more structured organizations would be less likely to adapt (and to succeed in processes of change) because of their higher complexity. Resource-dependence theory predicts that organizations under financial stress are more prone to change, whereas richer ones will more likely stay in their initial stable condition. Yet, our two case studies are contrary to those predictions. Therefore, we ask: why should a bigger organization, with more complex characteristics and richer in terms of both financial and human resources, undergo a radical and revolutionary change? And why does a smaller organization, although under financial pressures, fail its accounting change?

We propose that archetype theory (Greenwood and Hinings, 1996, Scott, 2001) helps explain this paradox. According to archetype theory environmental pressures are filtered by organizations through an internal process of interpretation and attribution of meanings. This provides a dynamic interpretation of the outcome and pace of accounting change itself.

Our analysis is based on longitudinal case studies of two Italian LGs (Pettigrew, 1990b). The results show two patterns of accounting change: radical and revolutionary in the larger organization and incremental and evolutionary in the smaller one. These findings are not fully explained by contingencies, such as size and resource differences. Accounting change seems, in fact, to be prompted by external stimuli, but, once the change is prompted, outcomes of change are explained by the dynamics and patterns of internal conditions (Greenwood and Hinings, 1996). In this paper we elaborate upon these internal dynamics in order to explain the paradox.

The paper is organized as follows: Section 2 provides a general overview of these theoretical approaches to change; Section 3 clarifies the purposes of this study and its methods; Section 4 discusses the criteria for the selection of the organizations under study and Section 5 presents the analysis. Section 6 highlights the paradox of change emerging from the cases, discusses factors affecting accounting change, and develops propositions. The final Section raises implications for theory and practice, acknowledges limitations of the study, and offers directions for further research.

2. Contingencies, resources and archetypes: different explanations for the same change?

Accounting is recognized to play a fundamental role in organizational change (Nahapiet, 1988; Libby and Waterhouse, 1996; Townley et al., 2003; Dambrin et al., 2007) and is central to public sector reforms started during the last decades (Lapsley, 1999). Accounting systems embody by themselves assumptions about the organization, its rationality, authority and time (Dent 1991). As a consequence, accounting change can be seen as an example of organizational change and considered to be affected by similar pressures and dynamics.

Existing organizational literature presents different approaches to the study of change. Contingency theory (Burns and Stalker, 1961; Pugh et al., 1969) tends to see change as non-problematic (Greenwood and Hinings, 2006). Whereas others, such as resource-dependency (Pfeffer and Salanick, 1978) and institutional theory (Meyer and Rowan, 1977), underline how difficult it is to achieve radical change. Different theories also note how change can be characterized by divergent degrees of disruptiveness and pace (Greenwood and Hinings, 1996, Tushman and Anderson, 1986; Clegg, 1981). All these theories provide concurrent possible explanations for accounting change.

Structural-contingency theory and change

Structural-contingency theory sees change in terms of adaptation and organizational responses to contextual requirements (Drazin and Van de Ven, 1985; Gresov and Drazin, 1997; Gooderham et al., 1999). Contingencies, such as environmental uncertainty, organizational size, task diversification and routineness, determine the appropriateness of organizational forms and systems. According to this approach, organizations misaligned with their context suffer bad performance and as a consequence they move to gain a better "fit". This can be seen as an implicit theory of change, where organizations find themselves to face different pressures and modify their rate of organizational change in order to continue seeking the environmental fit (D'Aveni, 1994; Greenwood and Hinings, 2006). Change can be triggered by both exogenous and endogenous factors. In all the cases, the organization automatically passes from states of misalignment to states of alignment allowing a better performance.

Size is considered one of the most important factors affecting organizational structures and is generally associated with bureaucratization (Pugh et al., 1963, 1969; Presthus, 1958). Increasing size, in particular, will make organizations more formalized (Lawrence and Lorsh, 1967; Pugh et al., 1968). An increased scale of operation increases the frequency of recurrent

events and decisions, making them more and more standardized (Haas and Collen, 1963). This makes bigger organizations less flexible (Pugh et al., 1963). Recent organizational studies linking contingencies, in particular size, to change show that smaller organizations are more flexible and thus able to adapt to changing environments thanks to flatter and faster structures (Quinn, 1985; Haveman, 1993; Pasmore, 1994; Macdonald, 1995; Bloodgood, 2006). On the opposite, the routinization of activities present in bigger organizations is considered one of the major sources of resistance to change (Kelly and Amburgey, 1991; Amburgey et al., 1993). Bigger organizations, moreover, can be less motivated to change because of their higher perception of legitimacy and authority (Pfeffer and Salancik, 1978; Hannan and Freeman, 1989).

Resource-dependence theory and change

Resource-dependence theory (Pfeffer and Salancik, 1978; Aldrich, 1979) focuses on three organizational features: (i) resources, such as raw materials, capital, information and other inputs; (ii) networks of other organizations linked by the flow of resources; (iii) domination and exploitation of others' resources and favourable situations. Organizations try to dominate their resource environment, not simply to adapt to it. As critical dependencies change, the distribution of intra-organizational power will vary as well. Such external changes, then, represent a trigger for the organization that has to change in order to regain the fit in terms of performance (Greenwood and Hinings, 2006). Most organizations, however, are too small to achieve such domination, so that managers can only try to handle resource constraints.

Organizations with an increase in their performance or which do better than expected are considered to be less likely to engage in change (Prahald and Bettis, 1986; Repenning and Sterman, 2002; Bloodgood, 2006). On the opposite, poor organizational performance is considered a potential motivator to change in order to stop the decline (Boeker and Goodstein, 1991; March and Simon, 1958; Kielser and Sproull, 1982). Similarly to structural-contingency theory, indeed, resource-dependency theory predicts that misalignment between an organization and its environment brings a decline in organizational performance. Performance failure allows the ascendance of new managers and leaders who are more able to cope with the new situation (Hickson et al., 1971; Hinings et al., 1979). These leaders then introduce organizational changes. As with structural-contingency theory, the implementation of change is treated as non-problematical once the senior leadership has been changed.

An important implicit assumption of both structural-contingency and resource-dependency theory is that organizations confronted by the same lack of alignment between context and organization will respond in the same way. Organizations move to an organizational form appropriate for the new contextual circumstances.

Archetype theory and change

A unidirectional approach, such as that of structural-contingency and resource-dependence theory, is not enough to build a comprehensive theory to interpret change results (Pettigrew, 1990a; Mowday and Sutton, 1993; Coleman, 1999). In particular, contingency theory typically fails to consider the political realities and historical factors within organizations (Hendry, 1979, 1980; Smith and Nichol, 1981); while resource-dependence connects exogenous shifts to only one intra-organizational dynamic, power distribution between functional groups, giving only a hint of managers' cognitive frames and sensemaking in decision processes during change (Greenwood and Hinings, 2006).

Variations in contingencies or market forces are important in driving change, but cannot fully explain the final outcome of such change. The micro-processes that occur within organizations are equally important in determining how the institutional environment is interpreted and how organizations respond. Organizations are not just passive actors, but can be seen as political domains in which multiple actors interact to pursue their goals and interests, willingly using power, distorting normal organizational processes, and even using organizations as personal weapons (Selznick, 1949, 1952, 1957; Cyert and March, 1963; Pfeffer, 1978, 1981, 1992; Perrow, 1986). To understand change it is then necessary to examine interpenetrations of organizational contexts and intra-organizational dynamics.

As a reaction to the above mentioned, often partial, theories of "adaptation", archetype theory tries to connect both external and internal dynamics in a more comprehensive way, by recognizing that environmental pressures are filtered by organizations through an internal process of interpretation (Greenwood and Hinings, 1996). Because of this filtering, organizations may respond differently to the same stimuli for change. Contrary to the other two, this theory provides also a finer-grained definition of the final outcome of change reached by an organization, in terms of shift in both structures and systems and related ideas and values. An archetype, indeed, is a set of structures and systems that reflects a single interpretive scheme, made up of ideas, beliefs and values (Greenwood and Hinings, 1993).

Organizational structures and systems can be seen as embodiments of ideas, beliefs and values which constitute an overarching and prevailing interpretive scheme. The degree of consistency of change with the existing archetype gives rise to a differentiation between convergent incremental or radical outcomes of change[4]. Radical change happens when not only structures and systems shift from one archetype to another, but also the related interpretive schemes. When only the structures and the systems change, on the opposite, there is incremental change. Similarly, on the basis of the pace of upheaval and adjustment, change is evolutionary, when it occurs slowly and gradually, and revolutionary, when it happens swiftly and affects virtually all parts of the organization simultaneously (Greenwood and Hinings, 1996).

Archetype theory is generally comprised within new-institutional theories, as archetypes represent institutionally prescribed ways of doing things (Scott, 2001) and examples of rationalized myths (Meyer and Rowan, 1977; Greenwood and Hinings, 2006). Following this perspective, external factors promoting and influencing change include both market and institutional forces. Market factors generally refer to demand, geographic distance, size, service and product mix relative to competitors (D'Aunno et al, 2000). Institutional factors consist of regulations, norms and cognitive models which influence organizational behaviour (Scott, 2001). However, change is not a simple matter of adjustment to external pressures (Greenwood and Hinings, 1988; Ter Bogt and Van Helden, 2000). It is also shaped by intra-organizational conditions (Pettigrew 1985). External factors act as constraints and stimuli to which responses must be worked out by the members of an organization.

Drawing on the archetype model of change developed by Greenwood and Hinings (1996), four main internal factors can be depicted, which influence organizational responses to external pressures. First, the *interests* of those affected by change (Lukes, 1974); second, *values,* which are generally the prevailing conceptions of what an organization should be doing, of how it should be doing it and of how it should be judged (Greenwood and Hinings, 1988, 1996); third, the *power* of particular groups to influence the translation of their values and their interests into favourable organizational arrangements (Pfeffer 1981; Hickson et al., 1986); and finally, the *capacity for action,* which is determined by a combination of technical (clear understanding of the new interpretive scheme and related systems and tools, skills and

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[4] The concept of incremental change recalls the idea of "first order" change (Levy, 1986; Laughlin, 1991; Broadbent, 1992), which involves shifts in managerial arrangements and organizational tangible systems in such a way that the interpretive schemes remain largely untouched and undisturbed. Radical change, instead, can imply the idea of "second order" change, where major shifts occur in the core value systems or "interpretive schemes" (Giddens, 1979; Bartunek, 1984; Laughlin, 1991; Broadbent, 1992) of the organization.

competencies to design new organizational structures and routines) and managerial capabilities (leadership, ability in achieving the final destination). Leadership or managerial abilities can be further distinguished into symbolic and substantive, transactional and transformational (Burns, 1978, Tichy and Ulrich, 1984, Schein, 1986).

Our purpose is to examine two case studies of change that do not "fit" the predictions of structural-contingency and resource-dependence theory. We use archetype theory as an illuminating perspective, which considers not only external contingencies, but also intra-organizational dynamics, in order to explain the resulting outcome and pace of accounting change.

3. Research methods

Research design and sampling

Most of the work on management accounting systems focuses on their features at a single point in time and not on their development (Helliar et al., 2002). However, studies conducted over a longer period of time allow the researchers to look at the cumulative effects of changes over a period, rather than focusing on one or two changes (Cobb et al., 1995). Thus, this paper is based on ex-post longitudinal case studies within two Italian LGs, where first-hand and retrospective data collection was carried out in order to reconstruct both the outcome and pace of change (our dependent variable) in accounting tools and the role of external and internal organizational factors (our independent variables) over fifteen years.

Change can be investigated at different levels of analysis: field, organizational or departmental (Logue et al., 2001; Dent et al., 2004). In this paper, we adopt the organizational perspective by focusing on interpretive schemes, structures and systems related to the accounting function throughout the whole organization. This choice has been made because the organizational level represents the place where internal and external factors together come into play and interact. This allows us to better address the role of management in facing the interaction between the needs to satisfy external institutional demands and those related to the internal requirements of technical work activity that are necessary to satisfy those demands (Collier, 2001).

Longitudinal case studies allow researchers to tease out the cumulative characteristics of processes of change in organizations and are appropriate when the purpose of the case study is to analyse the unfolding of events (Pettigrew, 1990b; Huber and Van de Ven, 1995).

Longitudinal case studies are required to better understand accounting changes because such changes take place over lengthy periods of time (not less than three years are required to gain some indications on how the changes are proceeding and how organizational dynamics interact - Huber and Van de Ven, 1995; Greenwood and Hinings, 1996) and are the product of multiple factors that are oscillatory and iterative. Specifically, a comparative case study method has been adopted. This helps examining the explanatory power of different possible theoretical approaches, overcoming some of the generalisation problems arising from the analysis of a single case (Eisenhardt, 1989; Pettigrew, 1990b).

The two longitudinal case studies were carried out ex-post, i.e. changes were partially observed as they developed and partially reconstructed retrospectively through interviews with key informants who were directly involved in the change before the research began. Authors went personally to the two sites several times.

Such reconstruction of events could be biased by agents' ex post rationalization due to what is generally called maturation of the subject and development of common views based on social interaction. This threat is common to all social research methods (Trochim and Donnelly, 2006). Social sciences, in fact, draw heavily upon personal perceptions of events (Patton, 2002, Trochim and Donnelly, 2006). In order to strengthen the internal validity of the study and avoid possible bias, we explicitly relied on triangulation of investigators, informants, data sources and methods (Patton, 2002, Flick, 2002). According to Whipp (1988), time itself is necessarily social and subjective. Time is not just "out there", but rather "in here" as a social construction (Pettigrew, 1990b). In organizations, time frames are built internally and their social construction can vary also across individuals, so that we have to study both events and their social constructions to understand the unfolding of change. In this perspective, ex-post rationalization can even be useful in order to better understand how people interpret and gain awareness of the overall change. In processes of change, the subjective interpretations of actors help shape the change itself. Moreover, in the short-term sources of change may appear differently, while in the longer term multidirectional relationships become clearer to organizational members and can be more soundly highlighted by researchers (Pettigrew, 1990b).

Multiple data collection methods were used (Flick, 2002). For each organization we analysed several archival materials: (i) official accounting documents (such as budgets, financial reports, environmental reports, etc.) which represent accounting changes themselves. We analysed their content and structure and their changes over time, in order to understand their

evolution and relationships with external and internal variables. (ii) Official documents presenting and communicating the adoption of new accounting tools and practices, in order to understand organizational formal aims and perceptions. And (iii) unofficial documents, such as meeting notes, in order to gather informal reactions. We also conduced interviews to gain knowledge of the history of accounting changes as seen by the involved actors and of their perception of events; ascertaining internal and external factors affecting change and their interaction; evaluating the actual implementation and impacts of the new tools on ideas, meanings and values shared by the people within the organizations; and identifying organizational accounting archetypes. The key informants were the managers from both central and line departments. Specific interviewees were identified following a snowball sampling approach (Patton, 2002), in order to listen to the most relevant actors taking part in the change. The gatekeepers were the CFO in Clio Town and the CEO in Calliope Province. Following the gatekeeper's sampling criterion, in the first case we interviewed managers from the Departments of Finance, Public Works and General Services[5] ; in the second case we interviewed managers from the Internal Audit Office, the Finance Office, the Environment, the Cultural Events and the Professional Education Departments.

During the interviews, one researcher concentrated on interviewing and the other(s) on taking notes. We ensured coverage of the main topics and issues related to the theme, leaving the flexibility to adapt to the specific interviewee. Interviews reconstructed, in particular, how new accounting tools affected organizational behaviors and interpretations over time and whether the tools were actually used; how the process of change developed; organizational reactions and behaviors after the introduction of the new accounting tools and systems. Given the need to reconstruct ex-post the unfolding of processes and organizational dynamics, this approach seems fruitful to drive the conversation and increase the comparability of responses. Interviews lasted, on average, one hour and a half and ranged from six to nine. Interview notes were written up and discussed by all three researchers within a few days after the interview.

Transcripts of the interviews were validated by receiving feedback from interviewees. Then, following a thematic coding approach, an analytical narrative was developed in order to provide information essential to the interpretation of the events, but without losing the sense of complexity of the change (Langley, 1999). The three researchers independently coded the

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[5] The General Services Department was responsible for the provision of both direct and indirect services, such as: personnel management, public library, social services, local peace officers, etc. Given the small size of the Municipality, all existing Departments were interviewed.

narrative by identifying the relevant independent variables and specifying the outcome and pace of change. Change events were listed and temporally bracketed (Langley, 1999). As discontinuities may not synchronise themselves to produce unequivocal periods, temporal brackets were chosen among external events. Periods are not considered phases in the sense of a predictable sequential process, but simply a way of structuring the description of events (Langley, 1999). The change of accounting systems and tools in both case studies covered a period of fifteen years and was divided into three sub-periods. The first sub-period started with the introduction of a fundamental bill of reform of the LG sector in 1990 and finished in 1994. The second sub-period began with the introduction of a new regulation for LGs' accounting and finance in 1995 and finished in 1999, when a new bill regulating public sector control systems was approved. The last sub-period was from 2000 to 2004, when field work closed. All researchers agreed on the final coding results in terms of both emerging independent variables and resulting outcome and pace of change.

Variables identification

Variables were identified and categorized as shown in Table 1. Interview and archival sources were triangulated in order to define different degrees of both dependent and independent variables.

Insert Table 1 here

Dependent variable. We were interested in understanding the outcome of accounting change taking place and its pace. Archetype theory revealed particularly suitable to this aim, since it allows distinguishing between the structures and systems being changed and their sequence in time, and the related change in values and beliefs that actually defines the achievement of change (see Table 1). After the formal adoption of new accounting tools and practices, indeed, the outcome of change (i.e. the type of archetypal change overall achieved at the end of the period under analysis) can be assessed by looking at the shift in ideas, beliefs and values (i.e. interpretive schemes). Radical change exists only when the change in structures and systems is accompanied by a change in the related interpretive schemes. As a consequence, drawing on Hinings and Greenwood (1988), we assessed: (i) the actual use of new accounting tools, (ii) the decision making criteria used for evaluating complex activities drawing on bureaucratic vs. managerial principles (Hinings and Greenwood, 1988; Pollit and Bouckaert, 2000), and (iii) the agreement with the new managerial ideas. Literature has

studied change looking at the shift between archetypes with different characteristics (Hinings and Greenwood, 1988; Kitchener, 1999; Kirkpatrick and Ackroyd, 2003a, 2003b; McNulty and Ferlie, 2004; Hammerschmid and Meyer, 2005; Greenwood and Hinings, 2006). In our cases, we identified a required change that implied a shift from a bureaucratic to a managerial archetype.

In Italy, a civil law country, regulative forces play a fundamental role in shaping public sector organizations' structures, systems and behaviours. The Italian LG field has been traditionally inspired by a "bureaucratic archetype", embedded in laws, norms, values and cultures. Related control systems were mainly hierarchical with a main focus on procedures (Borgonovi, 2005). Accordingly, LG accounting was dominated by a form of "budgetary accounting", whose main purpose was to limit spending (Table 2). This constitutes archetype one (the bureaucratic archetype).

In 1990, New Public Management (NPM) ideas began seeping into the Italian public sector, showing the possibility of a new "managerial archetype" for public administration. As in other countries worldwide, such a model was incorporated in various legislative initiatives inspired by managerialism and marketisation principles (Mussari, 1997; Pollit and Bouckaert, 2000, see Table 2). In the Italian public sector the ideas of managing by results and of introducing a "managerial culture" were broadly publicised (Mussari, 1994; Borgonovi, 2005). The fundamental reform bill (Act 142 of 1990) defined the municipality as the building block of democratic representation and charged it with "representing the relevant community, protecting its interests and promoting its development". Correspondingly, LGs were asked to undergo a profound process of change and were given more autonomy in levying taxes and determining fees for services, while witnessing a steady reduction in the amount of transfers from higher levels of government.

In 1995, a decree (no. 77) reforming local authorities' accounting was introduced. It required them to maintain the traditional cash- and obligation-based system. Its pivotal role in the LG information system was confirmed since budgeting, accounting and reporting continued to use it as a basis. However, it was supplemented by "managerial" tools, such as management control systems, accrual-based reports, the triennial strategic plan and the executive budget.

In 1999 the legislative decree 286 reorganised public-sector control systems, introducing the principle of separation between: (i) controls on compliance, (ii) strategic planning and control,

(iii) management control, and (iv) personnel performance evaluation. The bureaucratic and the managerial archetype characteristics are summarized in Table 2.

Insert Table 2 here

Independent variables. We measured *resource* factors through the per-capita income and the financial performance, in terms of gains or losses shown by the LG's financial statements.

Size (Lawrence and Lorsh, 1967; Pugh et al., 1968) was measured by the LG's population and the number of its employees (see Table 3).

Intra-organizational variables. Among intra-organizational variables, *interest satisfaction* was identified through interviewees' opinions and agreement on previous vs. existing accounting systems and values (see Table 1).

Value commitment was assessed through interviews' judgment on new managerial values. In particular, we compared the agreement on organizational values imposed by previous external pressures or tradition (i.e. related to the previous bureaucratic archetype) with the agreement on values proposed by new external pressures (i.e. related to the new managerial archetype, see Table 1 and Table 2).

Power was defined by both looking at different actors' hierarchical position within the organization and asking them about their relative influence on decision making, resource allocation, agenda control and new meanings diffusion (Pfeffer and Salancick, 1978, Luke, 1974, Foucault, 1977, Hardy, 1996).

Finally, *capacity for action* was assessed by looking at both technical and managerial capabilities (i.e. leadership). We asked questions about the level and type of technical knowledge before and after the introduction of the accounting changes. We assessed leadership by looking at how managers implemented change and through which means (hierarchical position or commitment and communication, resource exchange or motivation - see Table 1).

4. The field and the Local Governments under study

Italy has two levels of LGs: provinces (103) and municipalities (more than 8,000). Both municipalities and provinces provide public services and are responsible for the development and promotion of the local community. Provinces have a stronger role in coordinating and

monitoring the activities of other public and private organizations and in receiving and transferring funds.

The LG field was chosen for this study because (Nahapiet, 1988; Hinings and Greenwood, 1988; Orrù et al., 1991): (i) it is well defined and its organizations are under similar legal status and have a similar complexity of responsibilities, thus ensuring a like-with-like comparison; (ii) except for some institutional bodies or organizational units prescribed by the law, local authorities have discretion to organize as they wish; (iii) the Italian LG sector has undergone a process of change since 1990, thus becoming an interesting field for change studies; and (iv) ambiguity on goals and performance standards and heterogeneous institutional forces are important elements which make the study of the interaction among change, internal and external factors more complex and challenging.

Both organizations, which will be called Calliope Province[6] and Clio Town[7], attempted to change their accounting systems and tools and followed the process of "managerialisation" begun in Italy over the last fifteen years.

These two organizations were chosen because they have a long track record of experience with accounting change. Both have reputations for being innovative, since they have often been selected to take part in best practice projects promoted by the Italian Central Government and to join in benchmarking projects and networks. Moreover, both were accessible to the researchers because a large number of their top managers and professionals had been personally met during conferences and educational programs and were willing to be interviewed by academics. Finally, despite their fame of being innovators, the two LGs showed immediately different results in accounting change. This polarity pointed out the emerging paradox that is here under study. Considering their widely different size and financial conditions, indeed, the two organizations showed outcomes of change divergent from what structural-contingency and resource-dependence theory would predict (Table 3).

Insert Table 3 here

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[6] Calliope, the "Fair Voiced", is the muse of epic poetry and is seen holding a writing tablet in hand, sometimes seen with a roll of paper or a book, and crowned in gold. Clio, the "Proclaimer", is the muse of history and is often seen sitting with a scroll and accompanied by a chest of books. Both names (and muses) have been chosen to represent the narrative of the unfolding of events.

[7] Some of the data which will be discussed for Clio Town can be also found in Caccia and Steccolini (2006). Their paper specifically aimed at examining the possible patterns of accounting change and the gaps between expected and actual results of such changes.

5. Calliope Province and Clio Town: the evolution of accounting archetypes

Both LGs had to cope with very similar regulative and normative pressures. Indeed, both were required to comply with the new laws and managerial principles recalled above. In the same period, Italian LGs had also to react to "Tangentopoli", a period characterized by political scandals for corruption at all governmental levels. This, together, with the diffusion of the values of autonomy and accountability of managers through academic and practitioners' networks, can be defined as the main normative pressures acting in the field at the time. Finally, cognitive pressures can be named up in the competition for the best performance among governments operating over the same area.

Case 1: Calliope Province

Calliope Province is characterized by its significant size and a relatively high per-capita income (see Table 3). It is situated in a highly developed area of Northern Italy, devoted to both agricultural and industrial activities. Calliope is rich in cultural and social initiatives, has an old academic and communal tradition, and is renowned for its artistic and architectural beauties. It has never experienced any financial stress. It has a long tradition of positive financial results and is renowned for its financial statements virtuosity (Table 3).

1990-1994

At the beginning of the 1990s in Calliope Province managers' power and autonomy over resources allocation were quite low. They were at most allowed to authorize payments. Moreover, the organization relied on traditional controls of formal compliance and an old IT system strictly bound to the reporting schemes required by law. This situation began to change when the regulatory context changed. In 1990 a new law was passed, identifying LGs as service providers with the possibility to spin-off public services. New criteria for performance evaluation were also defined, drawing on the concepts of efficiency and effectiveness.

After these precipitating events, some Departments began experimenting with new systems of management control, budgeting and policy evaluation, according to a more managerial idea of programming. One of these was the Finance Department. The CFO was the first to see in the new law an opportunity to introduce new tools and improve current management processes. He succeeded in committing and involving the Finance Department in the development of a first draft of an executive budget:

> *"The Province was still linked to the traditional bureaucratic model. It lacked both the adequate culture to change and the resources for improving management systems. It was thanks to the new laws that I took the chance to experiment. It's the fact that things are mandatory that makes them really happen!"* (CFO)

The experiment was carried out for two years in an attempt to gain a better and more precise control on activities and to make people more responsible for their actions. Nevertheless, in the end the experiment was abandoned without much clamour because of the little interest shown by politicians. They were, in fact, responsible for the official adoption of changes throughout the organization.

The Professional Education Department also found in the new laws the possibility to provide information perceived as necessary, but unavailable from the existing system. In particular, they introduced new control tools to monitor projects funded by the European Union. This brought two opposite results:

> *"On the one hand, other organizations involved in the management of funds started complaining about the "restrictions" imposed by the inflexible measures and indices identified for the projects evaluation. On the other hand the experiment seemed to actually improve the programming cycle…"* (Professional Education manager)

These two early sponsors of change saw the regulative pressure as an "external justification" to start change, that is, it affected "if" new options were at least explored by the organization.

As managers from the other Departments remembered, thanks to the particular capabilities owned by the Professional Education Department, their new control system proved to be much more advanced than those applied by the other Departments and the Province itself. This led to clashes with the Professional Education Department and pushed its manager to take on a critical position when, in the end, he was asked to adapt his system to the general frame chosen for the organization.

Such isolated experiments were carried out only in some Departments. According to the interviewees, such tools were not regarded as disruptive or long-lasting. Both tools never became official or widely used. As a consequence, only an incremental change can be envisaged, where structures and systems changed, but they were not followed by a consistent change in the ideas and values concerning their use and function (see Table 3).

Looking at the intra-organizational dynamics, this period was characterized by dispersed power. Managers could autonomously decide to implement new accounting innovations. Only

politicians, however, could formally support or repress experiments. This situation hampered the actual sharing of the new meanings and, as a consequence, the radical change under two perspectives: on the one side, it dispersed the efforts of change at the departmental level; on the other side, politicians remained the only ones recognized in charge to finally exercise their veto on the few attempted changes. High and concentrated technical capabilities (only two Departments experimented changes and owned the relative managerial technicalities, while others were still characterized by a prevailing bureaucratic culture) helped identifying two different substantive and transformational leaders, the CFO and the manager of Professional Education, who represented a possible reference point to commit others to change (e.g. the politicians in the case of the executive budget proposal). In the end, however, they were unable to interact and convince the organization as a whole. Political pressures and a general indifferent commitment with the new ideas, that had just started coming around, represented the main hamper to radical change. As a consequence, only structural changes were introduced and remained confined in the two Departments.

1995-1999

In the mid-Nineties, the Province hired a CEO for the first time. He came from the private sector and was strongly convinced about the positive effects of the introduction of a more managerial culture and tools in public organizations:

> "*The new CEO represented a substantial innovation in the leadership style because he managed through the use of more informal channels*" (manager of the Professional Education)

In 1995, a new law was passed making the adoption of the executive budget compulsory. A "Nucleo di Valutazione" (Commission for personnel evaluation) and an Internal Audit Office were also introduced in order to support the CEO. In particular, it was given three main tasks: i) to build the executive budget, ii) to implement a managerial control system, and iii) to link budget results to the personnel evaluation system. In order to help employees to understand and manage these changes, training programmes were organized.

Calliope's culture and shared values started changing:

> "*The first years of the reform process were absolutely devoted to carefully follow the introduction of new tools and encourage the discussion among different Departments. Training courses were arranged and the CEO administered ad-hoc questionnaires in order to both evaluate the perceived importance of the existing processes and*

financial resources and spread the new ideas" (manager of the Cultural Events Department)

Capabilities also started growing and diffusing within the organization. In particular, the organization was highly interested in achieving the best possible design and use of the new managerial tools:

"*In order to achieve better results and improve the system's positive impact on managers' problems, even the Internal Audit Office and the Finance Department have started a deeper and more integrated cooperation!*" (Public Works Department manager)

The new managerial control system was fully operating in 1997. At the beginning it was implemented only for a few activities, but was then extended to the whole organization. According to the Internal Audit Office manager, the newly implemented system deeply changed the management and helped the allocation of resources and responsibilities under both the executive and the overall budget perspective:

"*The new system allowed us to strengthen both programming and control and performance evaluation, which were weak and focused mainly on inputs in the previous model. It was adopted by the whole organization and changed managers' behaviours in managing their Departments, making them more responsible and aware of what was going on. Although, I think, they always underutilized and underestimated all its actual potentialities! Of course, the relationship of mutual trust between the President of the Province and the CEO helped the achievement of the objectives. And in the end this gave big strength and power into the CEO's hands*" (Audit Office manager)

At the end of the Nineties, the Province was achieving a radical change and moving to the managerial archetype, witnessing an improvement in the day-by-day activities. Pushed by law requirements, new accounting structures had been introduced and also at the interpretive scheme level there was an increased awareness of the usefulness and possible positive outcomes of such changes (see Table 3). Managers recognized that the programming and budgeting process had become faster and more effective, that the resource allocation was more responsive to the actual needs of the organization and that more autonomy was granted for solving emergencies. New tools started to be used at all levels to improve decision making. People in the organization seemed to welcome the new systems:

"From the beginning the organization was both curious about tools and aware of the possible implementation problems... Innovations require adaptation and self-involvement and it was hard to account in advance for the new system's cost and benefits. Nevertheless, as time passed, we drew a positive evaluation of the overall process because we realized the actual possibility to manage the organization according to principles of effectiveness and efficiency. At the beginning there were three main groups really pushing for change: the Internal Audit Office, the Finance Department and the Human Resource Department. However, in the end almost all people in this organization agreed about the usefulness of the realized changes and saw the budget and the responsibility centres as the most important and positive innovations introduced during the Nineties ... After a short time these tools were perceived as fundamental for a good organizational management" (Environment Department manager)

Moreover,

"What really made the difference was probably managers' openness to innovation. The few existing groups resisting to change were easily isolated, because politicians sustained the process" (Environment Department manager)

Together with the structural changes required by law, then, managers embraced the values of the new managerial archetype. Internal documents started recalling and quoting new tools and the information they provided. People started using the new tools and appreciating the effects on everyday activities so that they finally began suggesting further improvements to the system. These new accounting structures and systems further contributed to the shift in values. A radical change can thus be envisaged, where old bureaucratic structures and ideas were replaced by new managerial ones throughout all the organization (Table 3).

It is notable that the shift from the first to the second period is characterized by the movement from a pattern of interests that supported the existing archetype combined with an indifferent pattern of value commitment (only two Departments started autonomously managerial experimentations, while the rest of the Province *"lacked both the adequate culture to change and the resources for improving management systems..."* - CFO) to a dominant pattern of interests in favour of the new archetype combined with a reformative pattern of value commitment (in the end almost all people in the organization agreed with the realized changes). Much of this shift was due to the CEO's action, who personally arranged meetings

and ad-hoc training courses with the different Departments. This clearly helped develop more dispersed technical capabilities. He managed to engage people in the process of change pushed from the external regulation, making them more aware of their role, of the logics and of the possible positive effects of the new systems. New ideas were thus more easily known and understood. This second period shows also more concentrated power dependencies: all the relevant power was concentrated in the newly appointed CEO. He played a strong role throughout the organization and turned out to be a substantive and transformational leader ("*The new CEO represented a substantial innovation in the leadership style*" – Professional Education's manager). In this case, indeed, the leadership not only coincided with the high hierarchical position (granting him formal power), but also with the knowledge and the ownership of the new managerial meanings. These elements contributed to commit people and negotiating a satisfactory change with all the Departments. People became aware of the new possibilities and curious of the results. As a consequence, external regulation brought to the introduction of the new structures, but internal dynamics made the new ideas diffusion and understanding possible.

2000-2004

During the last period, the managerial archetype was put under serious scrutiny due to emerging and unanticipated shortcomings. Some Departments began to complain about the actual implementation and effectiveness of the systems, showing that there still existed room for improvement. Some Departments, like the Professional Education, decided to introduce new solutions relying on the competencies of external consultants:

> "*…There was a strong need for a higher integration of expertises in the organization. The Department, thus, decided to place itself in a more strategic position, aware of the local needs and the network we were part of*" (manager of the Professional Education)

A new legislative decree, passed in 1999, required LGs to reconfigure their internal control systems. The Internal Audit Office was charged with making more coherent all the required internal control systems. For this purpose, the Internal Audit Office proposed the introduction of an overall strategic control system and a strategic plan. However, the Council rejected the proposal, suggesting only a review of the existing control systems.

In 2001, the CEO left his position due to illness and a new CEO was hired. However, the changes underway were sustained by the Internal Audit Office, which represented the main

link between the two periods and ensured a high degree of continuity in the managerial control tools used in the Province.

During the following years, there were two main events: the decentralization of the audit function to the departmental level and the introduction of an overall strategic control system:

> "*Decentralization of the audit function and identification of the role of departmental controllers empowered the system. They allowed, in fact, to both systematize and gather fundamental information in a more precise way and diffuse the periodic budgetary guidelines more effectively. The final result was an increase in the overall knowledge about organizational activities as a whole. This represented a further improvement towards the more efficient and effective model we had in mind*" (Environment Department manager)

As a consequence, information and knowledge sharing was further improved at all the different organizational levels.

Finally, the introduction of a strategic system was proposed (this time by politicians) and passed under the idea to increase councillors' external visibility. These changes increased the CEO's "technical power" rather than his leadership and legitimization, in contrast with the more personal style of his predecessor:

> "*...With the new CEO the political and the technical dimensions started growing separately. This encouraged the establishment of direct relationships between managers and politicians, which were, however, in contrast with our official requirements*" (manager of the Internal Audit Office)

While Calliope underwent a radical change by completing the transition from the bureaucratic to the managerial archetype in the second half of the Nineties, the last period was characterized by slow incremental adjustments within the same archetype. Organizational and accounting devices, such as responsibility and audit decentralization, were introduced in order to make the new accounting systems and structures more effective. These improved the interviewees' knowledge and use of the new managerial tools, but didn't affect further people's perceptions, nor the emergence of new values (see Table 3).

This period shows a challenging pattern of interests where the CEO, his staff, the Internal Audit Office and some senior managers were satisfied with the new implemented archetype, while other groups heavily complained because of some technical problems in the design and use of the new accounting tools (need for a higher integration). Also value commitment

became competitive because the initial group of sponsors of change went on supporting the implemented systems, despite others' complaints. Disagreement and unsatisfaction allowed only incremental changes (e.g. the decentralization of the audit function), because of the difficulty of finding a common ground at the level of the overall organization. The appointment of the new CEO, more concerned with technical issues than people's involvement, led again to dispersed power, where managers, drawing on the previously acquired capabilities (further improved by the most recent changes), started regaining autonomy. However, the new CEO owned "technical powers" on resources and decision making ("*With the new CEO the political and the technical dimensions started growing separately...*" – Internal Audit manager). This allowed his staff and the Audit Office to use their power to bind the system. As a consequence, in this period what changed was the very pattern of leadership which became more symbolic and transactional: the former sponsors of change in the end only had a symbolic role and didn't actively commit people. Moreover, the new CEO introduced a logic supporting more direct bargaining with the new leading groups asking for further changes and this "*encouraged to establish direct relationships between managers and politicians*". This uncoordinated way of managing the introduction of new accounting structures slowed down the diffusion of new ideas (such as the ones related to strategic issues and systems) and made the last period under study characterized only by an overall incremental change.

Case 2: Clio Town

Clio Town is situated in a sunny Italian island, renowned for its natural beauty. It is one of the most important industrial ports in the island and hosts some oil and chemical plants. Clio is smaller than Calliope in terms of inhabitants, employees and income (see Table 3). In 1994 after a period of industrial decline and increasing unemployment, the local industrial district was declared a "crisis area". Since then, the public and the private sectors have been engaged in new strategies and actions to revive the district.

1990-1994

At the beginning of the 1990s, the municipality of Clio had no managerial control tools because no law had ever required them. The information system was based on a mainframe (IBM S36) that supported, without providing links among the different procedures, cash accounting and budget procedures. The annual budget preparation was the result of formal

and informal meetings between the CFO and the Cabinet. The managers of the other Departments were not involved in the process and virtually ignored the financial situation of the municipality. The Cabinet was responsible for the majority of spending decisions and had the final veto power:

> "*At that time, it was politicians who decided, we weren't involved in the process...*" (General Services manager)

In 1990, when the first reform laws (identifying LGs as service providers and new criteria for performance evaluation) were passed, Clio was deeply suffering from financial difficulties and running the risk of going bankrupt. In June 1992 a new young CFO was recruited:

> "*My strong intention was to do something really new in the organization!*" (CFO)

The situation was serious because previous financial reports had been closed with huge deficits, the municipality often had to use bank overdrafts in order to cover everyday current expenditures, and relations with suppliers were strained because of frequent payment delays. The CFO decided to react:

> "*I felt I had to find remedies to such a situation as soon as possible, otherwise we would get stuck! Before my arrival the role of the CFO had been the one of recorder of financial data. I wanted to play a more proactive role*" (CFO)

He therefore proposed several initiatives to the Cabinet, such as increasing local fiscal leverage and tariffs for services, recovering outstanding credits, fighting tax evasion[8] and reengineering spending and procurement procedures:

> "*The Council considered these proposals to be highly unpopular, but I clearly pointed out that Clio had no alternative but to accept the changes. In the end they accepted to prepare a "prudent budget""* (CFO)

As a consequence, the CFO put in place a real "tension strategy" in an effort to trigger change:

> "*If you want to keep tension to change high, you must stress the availability of alternatives. If you want me to introduce innovation, please let me do and follow me, otherwise …I give up and you can find a solution by yourself!*" (CFO)

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[8] The amount of tax evasion is considered because of its negative effect on the Municipality's amount of revenues and overall financial equilibrium.

Of course, the changes weren't painless. Confrontation and clashes between the Finance Department and the other Departments and the Cabinet, which were quite happy with the existing system, occurred. The actions of the CFO were seen as an undue intrusion into Departments' decision making processes:

> "*At that time, we didn't feel any urgency to change. Today, I can understand that it was important and necessary in order to shake our Municipality. However, at that time, we went on unaffected by the transformation*" (General Services manager)

In the end, though unpopular, changes in the expenditure procedures were implemented. At the end of 1993, the annual report showed a cash surplus.

The CFO decided to create an internal "steering committee", whose expected task would be to spread a managerial culture inside the organization and support his changes. An Internal Audit Office was created within the Finance Department. This Office became responsible for increasing the efficiency in the whole municipality.

Summing up, before 1995 Clio had experienced a slow, evolutionary incremental change within the old bureaucratic archetype (Table 3). Although the new CFO introduced new procedures for expenditure control, these new accounting tools were not understood. Changes were hindered and resisted by the people inside the organization. Accounting changes were seen as imposed by the Finance Department. The need for change was not perceived. New accounting structures and systems were not used. Instead, Departments continued to use the old bureaucratic and familiar procedures. The new accounting tools themselves were introduced were mainly focused on expenditure control (traditionally associated with the bureaucratic model of public administration) rather than on managerial autonomy and responsibility.

In this period, Clio's internal dynamics resembled Calliope's ones, i.e. there was a dominant pattern of interests that supported the existing archetype combined with an indifferent pattern of value commitment. This led to low people's involvement and understanding of the new tools and eventually slowed down the change. They didn't see any reason to change and the financial stress wasn't perceived as a departmental problem. Power was concentrated and retained by politicians who were the only ones eventually deciding on financial and accounting changes. They further isolated the new values at the managerial level. Technical capabilities were high and concentrated only in the Finance Department which had the explicit task to steer the organization towards the recovery from the crisis. The CFO thus

started prompting change by adopting a symbolic and transactional leadership aimed at keeping the *"tension to change"* high. Although showing a long-term vision, this wasn't enough to involve the other Departments and commit them to change. The symbolic and transactional approach, rather, made the reform perceived as top-down and as something personally owned by the CFO. As a consequence, the other managers didn't feel any urge to accomplish the required change.

1995-1999

In 1995, when the national accounting reform was passed, the CFO identified another opportunity to advance the innovation process:

"The Legislative Decree 77/95 was the key to open up the change process" (CFO)

Thus, as in Calliope, new law requirements were used as an excuse to introduce new tools and managerial structures and systems and legitimize them within the organization. Nevertheless, as we found, the search for compliance with law can eventually result in a change affecting only structures and systems.

While the recovery process was producing the desired effects, ensuring an improvement in their financial position and allowing the Council to reduce the tax burden, in 1996 the organization introduced a new information technology system (Microsoft Windows NT) paralleled by a training programme for employees. However, this change was neither well understood nor favourably perceived by other Departments. It was simply considered as being "economically convenient":

> *"When the CFO decided to invest in information technology in my department, I immediately agreed because I needed hardware. All work was manual before. But I accepted without reservation because everything was decided and financed by the CFO. Anyway, results were good and performances improved"* (Public Works manager)

Moreover,

> *"...after introducing the new information system, I organized courses for all employees to get accustomed to it. Many employees did not attend the class. Later, when they asked us for help, my staff and I accepted under a condition: we could withdraw money from their budgets, as a compensation for our help, in order to pay a new course for us"* (CFO)

The CFO started applying unilaterally transfer prices to other Departments, but this method was given up very soon.

From the middle of 1996 each manager was required to communicate to the Finance Department the following year's annual goals, expected revenues and expenditures, in order to feed the Executive Budget. Accrual accounting and managerial control tools were introduced only in 1999 thanks to the creation of an "Accrual and Cost Accounting Group" (ACA Group). This project was intended to start devolving some accounting procedures from the Finance Department and thus integrate the systems. To this end, the ACA group worked closely with each Department. In the expected integrated system, cash-based information was destined to have the lion's share, while accrual accounting data were doomed to play a minor role. The design of the new integrated system highlighted some shortcomings of the current software, because it was not able to support the preparation of an accrual budget and did not provide a flexible reporting system. Although managers and politicians did not express any specific information need and were still quite satisfied with the set-up tools and processes, this software did not satisfy the CFO. He required new reporting schemes, flexible enough to gather useful information from different databases and to better support decision-making. The ACA group decided that SAP R/3 would represent the right answer to those needs. All these changes, again, were proposed and appreciated only by the Finance Department:

> *"After ten years of introduction of accounting innovations, there was still a part of the organization which was not affected by the use of the new tools..."* (CFO)

Moreover,

> *"Everything happened within the Finance Department, we were not actually affected by their changes!"* (manager of the Public Works)

At the end of the Nineties, like in the previous period, Clio failed to achieve radical change. The new systems were not seen (except by the CFO) as a way to change the existing pattern of interests or to mobilize new professional values. The organization remained stuck to the old bureaucratic template. Managerial accounting changes were attempted and formally introduced (because they were compulsory by law), but they were "absorbed" by the Finance Department which was in charge of conforming to the new accounting rules. Sequential changes and their importance seemed not to be perceived by the rest of the organization. There were no changes apart from those strictly required by law. Moreover, most decision

making processes were informal, so that even official documents failed to report and make reference to the real extent of the use of new accounting tools.

Again, change was felt as imposed by the Finance Department, which had the power and the competencies to influence structures and systems thanks to the financial crisis (see Table 3). As a consequence, the majority of people and groups were not convinced or committed to the new archetype. These uncoordinated pushes for change led towards a challenging pattern of interests (after ten years of accounting innovations, there was still a part of the organization that was not actually affected by the changes) and a competitive pattern of value commitment (e.g. many employees did not attend the courses specifically arranged). Since the new accounting tools were not perceived as useful for their own activity, Departments didn't take part in the change itself. Moreover, the power, still concentrated, shifted from the politicians to the CFO, thanks also to the new law requirements asking for greater managerial autonomy. The CFO and his Department controlled resources, decisions and meanings (being the only one with the required knowledge). This clashed with the old routines still promoted by the other groups. Competing ideas fought each other without allowing a main approach to win. A similar pattern can be identified as far as technical capabilities are concerned: they were high and concentrated in the Finance Department, which was the only one to be able to suggest a solution and recover from the crisis. The other Departments went on not understanding the rationales behind the change because they didn't have the technical means and the power to manage it. Also the CFO's leadership was unclear, i.e. transactional and alternatively symbolic and substantive. He was, in fact, prompting change by both using his formal position (he imposed the change through the ACA Group and by financing other Departments) and generating commitment through training courses (again as a form of exchange). This wasn't enough to generate radical change: the exchange logic, indeed, prevailed, putting the other Departments in the position of defenders against the unwanted centralized changes (see the "*compensations*" for the training courses and the SAP introduction).

2000-2004

By 2000 Clio had reduced both the amount and the number of long-term borrowings, found new sources for financing investments and improved its capacity of recovery of cash receivables. Besides, other LGs began considering Clio as a benchmark in adopting optimal accounting systems and the CFO was invited to conferences and lectures.

At the end of 2000, as programmed, the opportunities offered by ERP systems were presented to the Council, which approved the "SAP project", due to begin in 2001. Much attention was paid to publicising the new system to employees. Project goals, phases, methods and tasks were presented to the organization by the ACA group members. This time users in the various Departments agreed that the new system could actually lead to the diffusion of a managerial culture, focusing on cost control, efficiency and effectiveness and responsiveness. SAP was expected to contribute both to the improvement and diffusion of employees' skills and competencies and the creation of new professional profiles:

> *"The new system was also meant to increase the interaction between and within Departments and the diffusion of a process-oriented vision of the municipality, helping in devolving activities from the Finance Department to others"* (CFO)

In the end, then, most of the Departments seemed finally happy with the resulting systems and eventually started taking part themselves to change.

While ending the SAP implementation phase, Clio's change seemed to slow down, but in 2004 according to the CFO and his staff *"some new dark clouds were looming on the horizon again"*. They were, in fact, afraid of a re-worsening financial situation resulting from the Maastricht Treaty and the growing inefficiency in some services:

> *"We warned everybody about new financial troubles! Sooner or later, other departments would realize the problems and decide to react... They would come to us and ask for help. And we'd be there with our recovery solutions!"* (CFO's assistant)

At the end of the third period, then, the Finance Department was already developing a recovery plan and thanks to the SAP reporting system, they already foresaw how to react: spinning off transport and water supply services, reorganizing the "Service to citizens" Department, closing public kindergartens.

In Clio many accounting tools were introduced as a consequence of the fiscal and financial pressures and the necessity to conform to regulative forces, but they only vaguely affected the traditional bureaucratic archetype. The municipality started a slow and evolutionary change towards the adoption of managerial tools, but it remained in an intermediate category over a long period of time, where only formal structures and systems seemed to change, whereas actual behaviours and ideas remained the same. At the beginning of the new century, its prevailing interpretive scheme was still mostly stuck to the old bureaucratic archetype. Managerial accounting tools existed, but were not used or fully understood. Managerial ideas

were still not shared throughout the organization. They were just "something going on" in the Finance Department. Although in this last period something seemed to start changing slowly in terms of agreement with the managerial ideas and use of the new systems, behavioural change had not occurred. As a consequence, the final destination of the Clio's accounting change still remained uncertain at the end of 2004 (Table 3).

In this period, Clio was still characterized by a challenging pattern of interests and a competitive pattern of value commitment. Most groups were increasingly satisfied with the new managerial tools and values, as a consequence of the strong communication strategy put in place for SAP and because they started appreciating positive effects on the management of their activities as well. On the opposite, the CFO and his staff were only moderately satisfied with the advantages brought about by the new accounting innovations. As a consequence, they started pushing for new changes even before the others could realize the first wave of reform. Different timing and uncoordinated efforts represent the main hindrance to change characterising all the three periods under study. Along all the periods Clio also kept concentrated power dependencies, which, contrary to Calliope, didn't help change. This was probably due to its combination with concentrated technical capabilities and transactional symbolic leadership, which absorbed change only within the Finance Department (more directly involved in the introduction of the new systems). Only in this last period technical capabilities started increasing (as a consequence of the repeated training courses) and this led to the increased recognition that new tools could actually be useful for cost control and efficiency, effectiveness and responsiveness. The CFO's leadership, however, remained transactional and alternatively symbolic and substantive: on the one hand, he exploited his position to persist in the introduction of innovations (e.g. the "SAP project") and to legitimate himself; on the other hand, he tried to involve also other Departments ("*The new system was meant also to increase the interaction ...*"). Moreover, he felt stronger and stronger thanks to the fame his municipality was gaining throughout the country as a consequence of his experimentations. At the end of the fifteen years, he was still standing alone on the path of change.

6. The paradox of accounting change: an alternative explanation

Looking at the two cases, contingency theory does not seem to explain why it is the bigger and more complex organization (Calliope Province) that actually succeeded in changing. Over

the period under study, neither organization experienced jolts in the relative size, the variable that contingency theory would predict to be relevant in order to trigger change. Instead, the number of employees remained almost the same during the fifteen years and the number of inhabitants showed a regular (more or less positive) trend. Similarly, resource-dependence theory does not seem to explain another of our findings, i.e. why the organization with lower financial performance (Clio Town) and more uneven internal power distribution (both pushing for change) didn't change (Table 3).

In the following subsections, we propose possible alternative explanations by looking at other external factors which could affect change and by finally investigating the intra-organizational dynamics and their combination, drawing on archetype theory. This theory, as said earlier, takes into consideration many of the variables proposed by contingency and resource-dependence theories, but, unlike them, also embraces intra-organizational factors. Moreover, it gives a more precise definition of the possible different outcomes of change. This helps better explain the accounting paradox we found. For each section, we develop some propositions on the dynamics affecting radical accounting change in order to guide future research.

External factors affecting change

External pressures may vary in their degree of intensity and consistency according to the specific location of an organization inside its social, political and economic context. As shown in the two cases, in presence of common regulative and normative pressures, different financial performances, citizens' expectations and income represent key-elements fostering or hindering change. Both Calliope Province and Clio Town belong to the LG field, but they are located in different geographical areas and operate in different local social and cultural environments. They both face a high degree of environmental and task complexity (though caused by different factors, i.e. high citizens' expectation vs. financial stress) and they are subject to the same strong regulative forces.

At the beginning of the 1990s Clio was suffering severe financial difficulties and running the risk of going bankrupt. The situation improved gradually. However, fiscal pressures due to lower funds from the higher levels of government and expenditure restrictions due to the European "Growth and Stability Pact" were still perceived as important. As predicted by resource-dependence theory, financial pressures pushed towards a search for higher efficiency

and a reduction in expenditures mainly achievable through new (though simple) accounting tools. During the second half of the Nineties, the actions taken to innovate the managerial systems became known in the LG field and Clio Town was selected to take part in "best practice projects" and "excellence awards" promoted by the Italian State Government. Clio was also the first Italian Municipality to adopt a SAP system for the bookkeeping: it was recognized as an innovator. This was not enough, however, to finally reach radical change.

In contrast, since 1990 Calliope Province had always shown good financial performances. It operated in a economically, socially and culturally rich context, with an old academic and cultural tradition. Citizens' expectations were very high and the competition with other LGs' of the same region to signal they are the "best" was strong. It had no apparent reason to change both structures and values, but accounting innovations were seen as a means to better fulfil needs and to achieve legitimization.

In the two cases, common regulative pressures represent factors sustaining at least formal changes in structures and systems. They seem fundamental for triggering both radical and incremental change, although they are not directly related to the actual pace of change, which was faster in Calliope than in Clio. A sudden compulsory change in accounting structures and systems didn't ensure change happened, nor that it happened quickly. Law is, indeed, able to directly affect the introduction of new structures and systems (e.g. accrual accounting, executive budget, control systems, etc.), but alone it doesn't influence the diffusion and understanding of the related ideas and values. As a consequence, what we define as radical change is not necessarily achieved in the end. Looking at LGs' and similar contexts, characterized by high ambiguity and visibility and strong legal requirements, it follows that:

Proposition 1: In fields characterized by high ambiguity and visibility and pervasive legal requirements, regulative pressures are not sufficient to ensure that a radical change will take place, that is, they are not sufficient to ensure change that encompasses structures, systems and interpretive schemes.

As highlighted before, normative and cognitive pressures were present and high in both the LGs in terms of participation in networks and competition to become best practices. In particular, Calliope shows that high citizens' expectations together with local networking can also represent an opportunity for radical change. Interviewees recalled that everyone perceived the importance of issues such as efficiency, effectiveness and customer satisfaction.

New managerial ideas started diffusing and being absorbed by the organizational culture itself. If normative pressures provide the "recipes" for changing structures and systems, then, cognitive ones affect the possibility of achieving radical change by being filtered and absorbed by the organization. Consistently with the existing literature (Greenwood and Hining, 1993, 1996; Hinings and Greenwood, 1988; Greenwood and Suddaby, 2006), we find that while the former impact more on "how" change takes place, the latter impact more on "whether" it affects both structures and systems and interpretive schemes.

Internal factors affecting change

External pressures are not sufficient to provide an explanation for the resulting outcomes of change (radical or incremental) and their pace. The two cases highlight that also the interaction among internal organizational factors has to be considered in order to understand the achievement of a radical and revolutionary change, like in Calliope. In both cases an initially concentrated power (in the CEO and some departments in Calliope and in the CFO in Clio) helped introduce new tools and structures, at least formally. Concentrated power, indeed, allowed greater coordination among the different Departments and identified one clear champion that became the reference point (also for technical advice) for those who wanted to implement the new changes. Power over new managerial meanings, in particular, revealed to be fundamental to start the diffusion of new-ideas and increase others' commitment. This was the case in Calliope's early experimentations in the 1990s. A similar pattern was followed by its CEO afterwards. High and concentrated power dependencies in those supporting and introducing change, then, play a major role in fostering the achievement of the final radical change at the organizational level. This contrasts with previous literature (Hinings and Greenwood, 1988; Greenwood and Hinings, 1996), which observed that concentrated/intermediate patterns of power are more likely to lead to incremental change. Drawing on our cases, we propose that:

Proposition 2: In fields characterized by high ambiguity and visibility and pervasive legal requirements, concentrated power represents a strong condition to ensure radical accounting change, although it does not necessarily affect the change in culture and values. In particular, power over meanings is necessary to spread radical change.

Also technical capabilities are a relevant factor to be considered. In Calliope Province decentralized and dispersed capabilities fostered radical change. Training courses and frequent meetings, in particular, were recalled as the means helping new ideas and capabilities spread. This directly affects the achievement of radical change, since it concerns the understanding of the managerial ideas, the adoption of the new related behaviours and the final actual use of the new systems and tools. Existing literature tends to consider only the level of technical capabilities (Hinings and Greenwood, 1988; Greenwood and Hining, 1993, 1996). However, in predicting radical change not only should the degree of technical capabilities be considered, but also their level of diffusion: we find, in fact, that the extent of dispersion is what really differentiates the capability patterns in the two cases. In Calliope more dispersed technical capabilities lead to radical change, while in Clio concentrated technical capabilities foster only incremental change, since they don't change organizational behaviours and beliefs as a whole. Consistently with previous findings (Hinings and Greenwood, 1988), we find substantive transformational leadership to help radical change. When leadership is built upon substantial personal characteristics (such as openness, availability to discuss with others, etc.) and abilities of involving and committing people, change becomes smoother and quicker. This represent, indeed, an effective way of sharing ideas and spreading new approaches throughout the organization. The substantial transformational leader is not only identified by formal and hierarchical authority, but, like in Calliope, he is also legitimized in terms of knowledge and ownership of the new meanings and systems. We then propose:

Proposition 3: In fields characterized by high ambiguity and visibility and pervasive legal requirements, technical and managerial capabilities are fundamental in ensuring change. In particular, high and dispersed technical capabilities, together with substantive transformational leadership, are necessary to spread radical change.

Finally, in Clio Town the presence of competitive value commitment doesn't seem to foster radical change, but rather a cosmetic change where (i) only few people own relevant technical capabilities, and (ii) quite all power dependencies remain concentrated. When not all the Departments agree with the new values, indeed, it is more likely to have uncoordinated efforts and competing pushes (i.e. status quo vs. reformative commitment) heading to different directions. Reformative commitment was present only in the Finance Department, which concentrated also technical capabilities and formal power. This, again, restricted the change

only within a small group of people, who actually absorbed it. There were few owners of the changes, who were committed to the ongoing reform, and their power hinged mainly on formal and hierarchical reasons. They were, thus, unable to commit others to change. On the opposite, in Calliope Province the commitment towards the new values was quite positive and people had a strong feeling of self-involvement (as the manager of the Environment Department recalled). This was possible also thanks to the clear power configuration (made strong by the CEO's ownership of the new meanings), the substantive and transformational leadership and the diffused technical capabilities. They gave start to a self-reinforcing cycle, where the positive results of change were seen and communicated across the Departments and people had the knowledge and the capabilities to understand and further improve them (like in the strategic system case). Considering the resulting patterns of internal dynamics in the two case studies, we can propose:

Proposition 4: In fields characterized by high ambiguity and visibility and pervasive legal requirements, radical change is more likely to occur when a dominant pattern of interests and a reformative pattern of value commitment are coupled with both concentrated power dependencies and high and dispersed capabilities.

Proposition 5: In fields characterized by high ambiguity and visibility and pervasive legal requirements, weak and competitive interests and value commitment and concentrated power dependencies combined with concentrated technical capabilities are more likely to ensure a change in structures and systems only (where the use of accounting tools is limited to the groups supporting them).

The combination of concentrated power and concentrated technical capabilities in a limited group of persons (like in Clio Town) can be paralleled to the idea of "specialised work groups"[9]. Such groups filter environmental disturbances; they ensure that systems are in place to provide leadership for the organization as well as direction for the full expression of the values and interpretive schemes (De Board, 1978). In Clio Town, during the first period, the Finance Department took on the features of an absorbing group, allowing the municipality to recover from its bad financial position and to maintain its old habits and interpretive schemes,

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[9] These groups with an absorbing role "absorbing", defending the value base and continuity of the group/organization, and, thus, weakening pressures towards the adoption of new archetypes have been studied by Laughlin (1991), Broadbent (1992) and Broadbent and Laughlin (1996). These authors also show that over time such groups can also become "colonising", diffusing new values and meanings and contributing to the transition to new archetypes.

by simply changing formal structures and systems (incremental change). Over time, the Finance Department strengthened its role as the "absorber" of external constraints and pressures. This role over the whole period of time can help explain a gradual shift towards a "colonising" role. In the last years, in fact, the Finance Department started to influence not only managerial innovations at the structure and systems level, but also to influence a departure from the old bureaucratic interpretive scheme and a coming closer to managerial culture and values.

The internal filtering of external factors affecting change

The two cases show that the combination of external and internal factors, more than organizational size or financial resources by themselves, has contributed to differentiate their outcomes of change over time. In both cases, changes were prompted by external factors, consisting mainly of market forces (financial stress) and regulative pressures (Central Government laws, see Table 1). Organizational filtering by internal factors, then, finally shaped the divergent effects in the two entities, explaining the paradox of accounting change through the dynamics and patterns identified before. In Clio, in particular, the necessity of change due to financial pressures was perceived only by the Finance Department and hardly diffused across the organization (which rather saw them as an imposition). In this case, the concentration of power within the Department, its increase in capabilities and leadership, all initially derived from the need to recover from the financial crisis. On the contrary, where the financial performance was good (see Calliope), the external legitimization provided by law didn't bring to concentrate all the technical capabilities and allowed a more transformational and negotiated leadership. We then propose:

Proposition 6: In fields characterized by high ambiguity and visibility and pervasive legal requirements, strong financial pressures can offset possible positive effects of internal organizational dynamics by concentrating technical capabilities and strengthening a symbolic transactional leadership. This hampers the diffusion of change, i.e. only incremental change occurs.

In the LG field, more strongly than previously found (Greenwood and Hinings, 1988, 1996), regulative pressures prove fundamental in prompting (both radical and incremental) change by strengthening the power and the formal leadership of the agents of change. Both LGs were under the same regulation, which gave them the chance to introduce more deep and structured

changes. Nevertheless, as we said, regulative requirements are not enough to ensure radical change, and only Calliope Province was in the end able to reach that outcome. Cognitive and normative pressures (like in Calliope), instead, favoured people's commitment and interest convergence towards the new archetype. Citizens' expectations, networking and a lively environment underlined the necessity of improving the existing accounting structures and systems, even before the regulation. As a consequence, people within the Departments began sharing the same ideas. This eventually led also to a greater dispersion of capabilities and more substantive, transformational leadership. These are all self-reinforcing conditions finally bringing to radical change occurrence. Specifically:

Proposition 7: In fields characterized by high ambiguity and visibility and pervasive legal requirements, strong cognitive and normative pressures support interests and value commitment favourable to the achievement of radical change.

7. Conclusions

This paper aimed at explaining a paradox emerging from two cases of change that did not "fit" the predictions of structural-contingency and resource-dependence theory. As a consequence, some specific propositions concerning the factors leading to different final outcomes of change have been proposed.

Our theoretical contribution is threefold: first, in general, we contribute to the organization theory on change by better addressing the limits of contingency and resource-dependence theories. Our cases show that contingencies and financial factors by themselves are unable to fully account for the different outcomes of change we find. As a consequence, drawing on archetype theory, which considers both external and internal factors influencing change and their interaction, we are able to point out an emergent paradox in the outcome of change and to better understand how it took place. With respect to previous organizational literature, we highlight the importance of taking into consideration the level of dispersion of technical capabilities within an organization during the process of change. Moreover, contrary to previous studies (Hinings and Greenwood, 1988; Greenwood and Hinings, 1996), we find that concentrated power can actually help radical change happen by identifying a clear champion of change, responsible for the whole process. As a consequence, we develop some new theoretical propositions to be further investigated and tested.

Second, we specifically investigate accounting change adopting an approach, archetype theory, mostly under-utilized in the past (for an exception see Windels and Christiaens, 2006). It helps explain the paradox in the outcome of accounting change, which the more traditional contingent and resource dependence perspective wouldn't solve. The archetype definition of the outcome of change, in particular, proves to be helpful for identifying different outcomes of accounting change. We also help better specify the bureaucratic and managerial archetypes (Hinings and Greenwood, 1988; McNulty and Ferlie, 2004; Hammerschmid and Meyer, 2005), between which the NPM reforms required a shift in the LG field, keeping the particular perspective of accounting structures and systems.

Third, by studying a particular setting, we point out some relevant variables that are likely to influence change. The choice of analysing public sector organizations, indeed, allowed us to study cases characterized by definition by high regulative pressures and strong legal institutions.

From the analysis some implications for practitioners emerge. First, in order to start and support accounting change it is important to take into consideration both external and internal stimuli and to study their likely interaction, by developing a "map" of internal and external factor dynamics as a starting point for choosing the most suitable strategy of change. Regulations, financial stress and demand can be an "external justification" for starting a change. However, they cannot be sufficient in ensuring and impacting on the organizational interpretive schemes. It is the filtering of normative and cognitive influences through internal organizational factors that impact on the possibility to achieve an "archetypal" change. More specifically, concentrated power and dispersed capabilities will be necessary to change structures and systems, but interests and value commitment are fundamental to ensure a radical change to take place.

Some specific observations can be also referred to the issue of public sector reforms. Reforms tend to be often introduced in a top-down fashion, with a high focus on the adoption of new regulations and a scant attention towards their actual implementation. Our analysis showed that new laws can be useful in prompting a "cosmetic" change in structures and systems, but there is also a risk that they do not translate into an archetypal change. Thus, policy makers should try to influence the internal conditions by using cognitive, normative and financial leverages, to follow the process of implementation of reforms and to resort to experimentations, training, best practice networks, in order to impact on internal capabilities,

development and diffusion of competencies which facilitate change, commitment to change, etc.

Of course, this paper is not without limitations. Our study, in fact, involved only two case studies, which, however, highlighted a possible paradox in the change since the beginning. Moreover, given the length and the focus of the study, we were able to carry out only ex-post longitudinal case studies. Finally, given the long-time perspective needed for the reconstruction of events, only managers (in general showing a longer tenure) were interviewed. In order to face these issues and strengthen the internal validity of the study, avoiding possible biases, we explicitly relied on triangulation methods (Patton, 2002, Flick, 2002).

Our results call for further developments through the enlargement of the empirical analysis to other organizations, other fields and other countries. Our analysis showed the importance of considering the combination of external and internal factors affecting change and their reciprocal influences, not only from a static perspective, but also from a dynamic point of view. Furthermore, the adoption of the concept of archetype allowed a deeper understanding of the different outcomes of change. Besides the empirical test of the propositions here developed, further unexplored issues are related to study of both the interaction among internal forcers themselves (which, in turn, combine with external ones in affecting change) and the way in which processes develop and shape accounting change results.

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Tables

Table 1 – Variables categorization: some examples

Variable	Definition and categories	Assessment criteria	Interviews textual example	
			Calliope Province	Clio Town
Archetype change (Hinings and Greenwood, 1988; Greenwood and Hinings, 1993; Greenwood and Hinings, 1996)	Related to the shift in ideas, beliefs and values that shape prevailing conceptions of what an organization should be doing (domain), how it should be doing it (principles of organizing) and it should be judged (evaluation criteria), combined with structures and processes that serve to implement and reinforce those ideas. Incremental change: organizations modify their structures and systems in a way that is consistent with the existing archetype. Radical change: organizations shift both structures and systems and values and ideas from an existing archetype to a new one. Evolutionary change: slowly and gradual. Revolutionary change: swift and affecting virtually all parts of the organization simultaneously.	- Actual use of new accounting tools - Decision making criteria for evaluating complex activities drawing on bureaucratic (local administration, constitutive role of legitimacy, hierarchical bureaucratic control system, focus on formal procedures, budgetary accounting, etc.) vs. managerial principles (administration as service provider, performance-driven legitimacy, decentralized control systems, focus on processes, outputs and outcomes, managerial control systems, performance measurement, etc.) - Agreement with new managerial ideas	*"The new system allowed strengthening both programming and control and performance evaluation, which were weak and focused mainly on inputs in the previous model. It was adopted by the whole organization and changed managers' behaviours in managing their Departments, making them more responsible and aware of what was going on"* (Internal Audit Office) – Radical change *"As time passed, we drew a positive evaluation of the overall process because we realized the actual possibility to manage the organization according to principles of effectiveness and efficiency... in the end almost all people in this organization agreed with the realized changes and saw the budget and the responsibility centres as the most important and positive innovations introduced during the Nineties ... After a short time these tools were perceived as fundamental for a good organizational management"* (Environment Department) – Radical revolutionary change *"The decentralization of the audit function and the identification of the role of departmental controllers empowered the system. They allowed, in fact, to both systematize and gather fundamental information in a more precise way and diffuse the periodic budgetary guidelines more effectively. The final result was an increase in the overall knowledge about organizational activities as a whole. This represented a further improvement towards the more efficient and effective model we had*	*"... we didn't feel any urgency to change"* (General Services Department) – Incremental change *"I accepted without reserve because everything was decided and financed by the CFO. Anyway, results were good and performances improved"* (Public Works Department) – Incremental change *"After ten years of introduction of accounting innovations, there was still a part of the organization which was not affected by the use of the new tools..."* (CFO) – Incremental evolutionary change *"Everything happened within the Finance Department, we were not actually affected by their changes!"* (Public Works Department) – Incremental change

Variable	Definition and categories	Assessment criteria	Interviews textual example	
			Calliope Province	Clio Town
			in mind" (Environment Department) – Radical change	
Patterns of value commitment (Greenwood and Hinings, 1988)	Status quo: widespread commitment to the existing set of values within the organization, problems are solved in terms of existing routines	- Most groups (in terms of number) prefer the existing archetype - The sponsor of change, if existing, is committed to the new archetype	*"The Province was still linked to the traditional bureaucratic model. It lacked of both the adequate culture to change and the resources for improving management systems. It was thanks to the new laws that I took the chance to experiment. It's the fact things are mandatory that makes them really happen!"* (CFO) – Indifferent *"At the beginning there were three main groups really pushing for change: the Internal Audit Office, the Finance Department and the Human Resource Department. However, in the end almost all people in this organization agreed with the realized changes"* (CFO) - Reformative	*"When the CFO decided to invest in information technology in my department, I immediately agreed because I needed hardware. All work was manual before. But I accepted without reserve because everything was decided and financed by the CFO. Anyway, results were good and performances improved"* (Public Work Department) - Competitive
	Indifferent: groups are neither committed nor opposed to prevailing and alternative ideas	- Most groups (in terms of number) do not express any preference - The sponsor of change, if existing, is committed with a new archetype		
	Competitive: some groups support the interpretive scheme in use, others prefer an articulated alternative originating in the institutional context	- Some groups (in terms of number) denote a preference with the existing archetype. - Some groups are promoters of a new archetype.		
	Reformative: widespread commitment to an alternative organizational orientation is visible whereas the existing one is opposed	- All groups are in favour of the new archetype		
Patterns of interests (Lukes, 1974; Benson 1977, Walsh et al., 1981)	Dominant	- Most groups (in terms of number) feel their interests satisfied or dissatisfied with the existing situation - The sponsor of change, if existing, is dissatisfied with the existing situation	*"What really made the difference was probably managers' openness to innovation. The few existing groups resisting to change were easily isolated, because politicians sustained the process"* (Environment Department) - Dominant *"…There was a strong need for a higher integration of expertises in the organization. The Department, thus, decided to place itself in a more strategic position, aware of the local needs and the network we were part "* (Professional Education) - Dominant	*"When the CFO decided to invest in information technology in my department, I immediately agreed because I needed hardware. All work was manual before. But I accepted without reserve because everything was decided and financed by the CFO. Anyway, results were good and performances improved"* (Public Work Department) - Challenging
	Challenging	- Some groups (in terms of number) are satisfied with the existing diffusion of resources and values. - Some groups cannot satisfy their interests.		
	Repressed	- Many groups (in terms of number) are dissatisfied with their interests. - Few organizational actors may be satisfied.		
Power dependencies (Pfeffer 1981; Hickson et al., 1986; Amburgey et al., 1993; Pettigrew	Concentrated: access to resources, key decision processes and information is restricted to a few groups or an	- Few groups (in terms of number) hold power on resources, decisions and meanings and share the same organizational tradition.	*"In 1990 managerial autonomy and power were very poor, related to payments. Many didn't like the budget experimentation because it was seen as an attempt to*	*"When the CFO decided to invest in information technology in my department, I immediately agreed*

Variable	Definition and categories	Assessment criteria	Interviews textual example	
			Calliope Province	Clio Town
and McNulty, 1995; Buchanan and Badham, 1999; Pfeffer and Salancick, 1978, Hinings and Greenwood, 1988, Luke, 1974)	elite Dispersed: access to decision processes, information means and resources is open and distributed amongst a variety of groups	- Most groups (in terms of number) share the same potential power on resources, decision making and meanings and the same organizational tradition.	*strengthen control over their activities*" (CFO) - Dispersed "*Since 2003 a new issue has been raising in order to improve organizational strategic vision and link resources to the territory. That is strictly associated with the decision to develop the first environmental report. The change of the CEO, moreover, has moved us towards an increasing care in reporting practices and a corresponding reduction of redundant information*" (Environment Department) – Dispersed	*because I needed hardware. All work was manual before. But I accepted without reserve because everything was decided and financed by the CFO*" (Public Work Department) - Concentrated "*When they asked us for help, my staff and I accepted under a condition: we could withdraw money from their budgets in order to pay a new course for us*" (CFO) - Concentrated "*If you want to keep tension to change high, you must stress the availability of alternatives. If you want me to introduce innovation, please let me do and follow me, otherwise ...I give up and you can find a solution by yourself!*" (CFO) – Concentrated
Pattern of technical capabilities (Greenwood and Hinings, 1996)	High	- Complete knowledge and skills concerning organizational structures, systems and processes and culture.	"*Training courses were arranged and the CEO administered ad hoc questionnaires in order to both evaluate the perceived importance of the existing processes and financial resources and spread the new ideas*" (Cultural Events Department) – High	"*...after introducing the new information system, I organized courses for all employees to get accustomed with it.*" (CFO) – High
	Moderate	- Adequate knowledge and skills concerning organizational structures, systems and processes and culture		
	Low	- Insufficient knowledge and skills concerning organizational structures, systems and processes and culture		
	Concentrated	- Few groups (in terms of number) possess technical capabilities	"*Training courses were arranged and the CEO administered ad hoc questionnaires*" (Cultural Events Department)	"*...after introducing the new information system, I organized courses for all employees to get accustomed with it. Many employees did not attend the class*" (CFO) – Concentrated
	Diffused	- Most groups (in terms of number) possess technical capabilities	"*Since 2003 a new issue has been raising in order to improve organizational strategic vision and link resources to the territory. That is strictly associated with the decision to develop the first environmental report*" (Environment Department) – Dispersed	
Managerial Capabilities of the	Symbolic: formal responsibility for an organization	- Leadership attained through a hierarchical position in the	"*The new CEO represented a substantial innovation in the leadership style because he*	"*Before my arrival the role of the CFO had been the one of recorder of financial*

Variable	Definition and categories	Assessment criteria	Interviews textual example	
			Calliope Province	Clio Town
sponsor/s of change (Burns 1978, Romanelli and Tuschman 1983,Tichy and Ulrich 1984)		organization	*managed through the use of more informal channels"* (Professional Education Department) – Substantive and transformational	*data. I wanted to play a more proactive role"* (CFO) – Symbolic and transactional
	Substantive: contribution to define values, strategic directions and internal commitment	- Leadership attained by generating values and commitment		
	Transactional: the manager interacts within a basically stable and knowable framework: she/he exchanges things such jobs, money and security for compliance and incremental innovations	- Leadership based on exchange mechanisms	*"Of course, the relationship of mutual trust between the President of the Province and the CEO helped the achievement of the objectives. And in the end this gave big strength and power into the CEO's hands"* (Internal Audit Office) - Substantive and transformational	
	Transformational: the manager commits people to action, converts followers into leaders and leaders into moral agents: she/he creates culture, skills and competencies	- Leadership based on persuasion and motivation	*"...With the new CEO the political and the technical dimensions started growing separately. This encouraged to establish direct relationships between managers and politicians, which were, however, in contrast with our official requirements"* (Internal Audit Office) – Symbolic and transactional	

Table 2 - Bureaucratic and managerial archetypes of within the Local Government field

	Bureaucratic Archetype	Managerial Archetype
Interpretive schemes (Hinings and Greenwood, 1988, Borgonovi, 2005, Schedler, 2007)	Local administration	Service provider
	Based on professional differentiation	Based on the integration of professional activities
	Professional practice defined by intrajurisdictional professionals	Analytical appraisal by transjurisdictional management
	Public administration as a closed system	Public administration as an open system
	Constitutive role of legitimacy	Performance-driven legitimacy
	Objectives selected in accordance with political rationality	Objectives selected also in accordance with economic and organizational rationality
	Neutral administrative activity, separated from politics	Administrative activity interacting with politics
Structures and systems (Hinings and Greenwood, 1988, Borgonovi, 2005, Pollit and Bouckaert, 2000)	High differentiation and low integration	Modest differentiation and high integration
	Incremental resource allocation system	Non-incremental resource allocation system
	Hierarchical bureaucratic control system	Decentralized control system, reporting to rhe CEO
	Recruitment and promotion based on professional competence	Recruitment and promotion based on professional and managerial competence
	Internal organization untied to selected objectives	Internal organization tied to selected objectives
	Focus on formal procedures	Focus on processes (input-output)
	Formal evaluation, based on regulation	Efficiency and effectiveness evaluation, linked to public needs
Accounting structures and	Main purpose: to limit spending; to show compliance of actions with	Main purpose: to limit spending; to orient behaviours toward goal attainment

systems (Borgonovi, 2005, Pollit and Bouckaert, 2000)	budget	
	Basis: obligation and cash	Basis: obligation and cash, accrual
	Focus: financial inputs	Focus: financial and non financial inputs, outputs
	Tools: budgetary accounting	Tools: budgetary accounting, executive budget, accrual – based reporting, managerial control systems, performance measurement
	Centralized data gathering, information processing and use (Finance Officer)	Decentralized data gathering, information processing and use; integrated accounting system
	Finance Officer	Finance Officer and Controller

Table 3 – Calliope and Clio: case development and variables patters

Calliope Province	Stage of change		
	1990-1994	**1995-1999**	**2000-2004**
Resource Pressures	Per-capita income: about 20,225 in 1990 – about 28, 332 €in 2004 Positive financial performance, no history of financial stress		
Size	Inhabitants: about 394,969 in 1990 - about 935,000 in 2004 Employees: about 1,015 employees on average		
Structure and system	Bureaucratic	Managerial	Managerial
Interpretive scheme	Bureaucratic	Managerial	Managerial
Interest satisfaction	DOMINANT - Most groups are highly satisfied with the existing archetype. Some managers are experimenting accounting innovations autonomously (CFO and manager for professional education).	DOMINANT - Most groups are highly satisfied with the new incoming managerial archetype. Managers are convinced the new values and accounting tools will establish a more advantageous situation.	CHALLENGING - The original group of sponsors of change is satisfied with the new implemented archetype. Some groups are moderately dissatisfied with it.
Value commitment	INDIFFERENT -Most groups do not express preference. The few sponsors of change (the CFO and the manager of professional education) are partially committed to the new emerging values (and accounting tools).	REFORMATIVE - Most groups share the aims and contents of the new managerial archetype.	COMPETITIVE -The original group of sponsors of change defends the new introduced tools. Other groups assume a more critical position and try to promote new emerging tools and ideas.
Power dependencies	DISPERSED - Managers are autonomous in deciding and invest in new accounting innovations. Politicians have formal veto power on experiments.	CONCENTRATED - All powers are concentrated in the CEO and his staff. He uses decision processes and meanings generation to promote change into the organization.	DISPERSED - Managers gain more autonomy. The CEO's staff and the audit office resist against a possible reorientation of the system.
Capabilities	HIGH AND CONCENTRATED in the departments experimenting changes. SUBSTANTIVE AND TRANSORMATIONAL LEADERSHIP of the CFO and the manager of professional education.	HIGH AND DISPERSED- high competencies are owned by the CEO, his staff and senior managers. Skills have been diffused in the organization by training programs. SUBSTANTIVE AND TRANSORMATIONAL LEADERSHIP of the CEO.	MODERATE AND DISPERSED knowledge and skills on the new archetype. SYMBOLIC AND TRANSACTIONAL LEADERSHIP - Leadership is questioned. The former sponsors of change play a symbolic role and hardly generate commitment. He negotiates with the new leading groups asking for changes.

Clio Town			
Resource Pressures	Per-capita income: about 5,980 in 1990 - about 16,556 €in 2004 Bankruptcy risk in 90s, "crisis area" in 90s		
Size	Inhabitants: about 21,264 in 1990 – about 20,000 in 2004 Employees: about 153 on average		
Structure and system	Bureaucratic	Managerial	Managerial
Interpretive scheme	Bureaucratic	Bureaucratic	Wanna-be managerial
Interest satisfaction	DOMINANT - Most groups are moderately satisfied with the existing archetype because they are facing fiscal and financial constraints. The sponsor of change, the new CFO, is totally dissatisfied with the existing situation.	CHALLENGING - Most groups are moderately dissatisfied with the new incoming managerial archetype which threats the existing distribution of advantages. The CFO is both dissatisfied with the existing archetype and with the new changes introduced.	CHALLENGING - Most groups are increasingly becoming satisfied with the new incoming managerial tools and values, but interests on resources and decision processes are not yet fully satisfied. The CFO and his staff are moderately satisfied with the advantages brought about by accounting innovations.
Value commitment	INDIFFERENT - Most groups are indifferent to the new archetype. The CFO is the main supporter of the new managerial archetype.	COMPETITIVE - Some groups are still committed to the previous archetype. The CFO tries to diffuse the new interpretive schemes.	COMPETITIVE - Some groups are still embedded in the previous bureaucratic archetype. The CFO goes on investigating the managerial archetype.
Power dependencies	CONCENTRATED - Powers is mainly held by politicians.	CONCENTRATED - Power has shifted from politicians to the CFO. The CFO has control on resources and decisions (adopted with politicians) and meanings, but only within the Finance Department.	CONCENTRATED - The CFO has control on resources and decisions.
Capabilities	HIGH AND CONCENTRATED in the Finance Department. SYMBOLIC AND TRANSACTIONAL LEADERSHIP - The CFO prompts change thanks to his formal position. His only counterparts are politicians.	HIGH AND CONCENTRATED in the Finance Department. ALTERNATIVELY SYMBOLIC AND SUBSTANTIVE/TRANSACTIONAL LEADERSHIP - the CFO prompts change by using either his formal position or generating commitment. The counterparts are the other managers. The style of leadership is mostly transactional.	MODERATE AND SLIGHTLY DISPERSED at organizational level. In the Finance Department they are still high. ALTERNATIVELY SYMBOLIC AND SUBSTANTIVE ROLE AND TRANSACTIONAL LEADERSHIP - the CFO prompts change by using either his formal position or generating commitment. The style of leadership is mostly transactional.

How the dimensions of the process of change interact over time: the case of accounting change

Mariannunziata Liguori[1]

Abstract

How single organizations manage the process of change and why only some of them are able to actually reach radical change are central questions in today's theoretical debate. The role played by the process of change and its dimensions (namely, pace, sequence and linearity) and how they affect the final outcome of change, however, have been poorly investigated. Drawing on archetype theory and looking at both radical and incremental change, this paper explores: (i) whether a specific pace of radical change exists; (ii) whether and to what extent different outcomes of change are characterized by different sequences of change in key-structures and system;, and (iii) how the three dimensions of the process of change can possibly interact. As an example of organizational change the study takes into consideration processes of accounting change in Italian and Canadian Municipalities, which, over the last decades, underwent a deep process of reform aiming at moving from the bureaucratic to the managerial archetype. Three departments of two Canadian and two Italian Municipalities, for a total of twelve cases, have been analyzed. The results suggest that irrespectively of the pace and the linearity of the process, the right sequence of key-elements has to be followed in order to achieve radical change. Contrary to previous findings, the sequence of changes is not strictly related to the decision making tools, but rather to the purpose, the accountability structure and the focus of the systems being changed.

1. Introduction

Questions such as how single organizations manage the process of change and why only some of them are able to actually reach radical change are central in today's theoretical debate (Greenwood and Hinings, 2006). Nevertheless, understanding change dynamics and how to manage them successfully is still problematic.

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In early contributions to organization theory, change was regarded as non-problematical, either as adaptation within the organization's life-cycle (Greiner, 1972; Quinn and Cameron, 1983) or as automatic response to the "fit" requirements envisaged by contingency theory (Burns and Stalker, 1961; Pugh et al., 1969). On the other hand, most theories, including resource-dependency (Pfeffer and Salanick, 1978), institutional (Meyer and Rowan, 1977), ecological (Hannan and Freeman, 1977) and punctuated-equilibrium (Tushman and Romanelli, 1985) theories, have pointed out that accomplishing change is problematic. The overarching and still unresolved question is, then, "not whether organizations can adapt, but the circumstances that enable or constrain them from doing so" (Greenwood and Hinings, 2006, pp. 830).

Extant literature typically poses the emphasis on the dichotomy between exogenous and endogenous factors affecting change and making only some organizations successful. Little attention has been paid to account for the role played by the process itself on the final results of change (Hinings and Greenwood, 2002, Pettigrew et al., 2001; Amis et al., 2004). Processes of change are concerned with the way organizational change is managed in terms of its structures and systems. The process can be defined through three main dimensions: (i) the pace, i.e. how quick change occurs, (ii) the sequence, i.e. the order with which structural key elements change, and (iii) the linearity, i.e. the linearity or oscillation in the development of the process of change itself.

The present paper attempts to address this lack of understanding. Drawing on archetype theory and looking at both radical and incremental change in organizations, in particular, the paper aims to explore whether the characteristics of the followed process affect the probability of the final outcome of change. It suggestively examines: (i) whether a specific pace of radical change exists, i.e. a fast, revolutionary pace, sudden and global in the elements being changed, as opposed to a step-by-step process, (ii) whether and to what extent different outcomes of change are characterized by different (more or less) linear sequences of change in key-structures and systems, and (iii) how the three dimensions of the process of change (namely, pace, sequence and linearity) can possibly interact.

To these aims, I focus on the study of processes of accounting change. The issue and the importance of change, indeed, have been long investigated also in relation with accounting systems and practices (Libby and Waterhouse, 1996; Covaleski et al., 2003; Oakes et al., 1998; Cobb et al., 1995; Jacobs, 1995; Burns and Vaivio, 2001; Collier, 2001; Quattrone and Hopper, 2001; Nor-Aziah and Scapens, 2007). Organizations set norms of behaviors, rules of

communication and values related to accounting systems and structures (Dent 1991). They pervade organizational activities, culture and values. As a consequence, this paper examines processes of accounting change as an example of organizational change, affected by similar factors.

The study was carried out in three Departments of two Canadian and two Italian Municipalities, for a total of twelve cases, which underwent a full range of accounting changes during the last decade. Such changes aimed at shifting from a traditional model of public administration to a managerial one, i.e. from a model embedded in laws and formal norms, where the main focus of control was on procedures, financial resources and inputs (Weber, 1992; Borgonovi, 1996) to a model stressing decentralization and autonomy, market oriented management systems and output and outcome control (Pollit and Bouckeart, 2002; PriceWhatehouseandCooper, 2005).

The analysis suggests that regardless of the type of pace, following the right sequence of key-elements is particularly important in order to achieve radical change. Comparing emerging findings with those of Amis et al. (2004), the sequence of changes appears to be not strictly related to decision making tools, but rather to the purpose, the accountability structure and the focus of such systems. The overall process, moreover, appears to be relatively smooth and linear. This study contributes to get a better understanding of how the dimensions of the process can affect the result of change. Moreover, it makes managers more aware of the process dimensions that can foster a radical outcome of change. Finally, given the chosen setting, it contributes to the debate on public sector reforms in terms of desired purposes and unexpected results.

The paper is structured as follows: Section 2 presents the literature review concerning the process of change and its dimensions; Section 3 outlines methods, variables and context of inquiry; Section 4 presents the history of changes in accounting systems in the twelve Departments under analysis. Finally, Section 5 discusses the findings and the possible interactions among the three dimensions of the process of change; and Section 6 draws some conclusions, implications and further research avenues.

2. The three dimensions of the process of change

Management scholars and practitioners have been generally interested in three main questions related to radical change (Malhotra and Hinings, 2005): Why large-scale radical change is

triggered? What does the change involve? And how does such change happen? In order to explain the final results of change, studies have largely focused on exogenous factors, such as technology, market and institutional pressures (Tushman and Romanelli, 1985; Tushman and Anderson, 1988; Meyer and Rowan, 1977; Scott, 2001), and endogenous factors, such as leadership, capabilities, culture and power (Pettigrew, 1985; Greenwood and Hinings, 1996; Oliver, 1992). However, changes vary both cross-sectionally and longitudinally in their rates, modes and paths (Meyer et al., 1993). Successful changes and reorientations are rare and usually happen in response to crises. What is missing is the attempt to understand and differentiate change processes and their direct effect on the final outcome of change, i.e. through which dimensions the process unfolds over time and how this affects the final achievement of radical change (Hinings and Greenwood, 2002; Pettigrew et al., 2001; Amis et al., 2004). In this paper, in particular, I adopt the Greenwood and Hinings' (1993) definition of change, i.e. the movement from one archetype to another.

Punctuated equilibrium theory (Miller and Friesen, 1984) provides the first important theoretical explanation for how organizations change and still represents the foreground of academic interest (Brown and Eisenhardt, 1997). It suggests that organizations go through relatively long periods of evolutionary convergence that are interspersed with or punctuated by relatively short periods of dramatic revolutionary change (Tushman and Romanelli, 1985; Romanelli and Tushman, 1994). This model describes the process of transformation as evolving through relatively long periods of stability in organizational activities that are punctuated by short breaks of revolutionary change (Romanelli and Tushman, 1994; Rosenkopf and Tushman, 1995). Over time, organizations have to respond to changes in contextual circumstances and to evolving and competing institutional prescriptions. This is done through punctuated responses (e.g., Fox-Wolfgramm et al., 1998; Nadler and Tushman, 1989). However, many authors have argued that indiscriminate rapid change across many different organizational elements cannot accurately describe how it actually takes place (Child and Smith, 1987; Pettigrew et al., 1992). Moreover, "while the punctuated equilibrium model is the foreground of academic interest, it is in the background of the experience of many firms" (Brown and Eisenhardt, 1997:1), which actually change continuously. I propose here that archetype theory not only proposes a competing interpretation of the process of change, but it can actually help answer some of these limitations.

An archetype is defined as a set of structures and systems that reflects a single interpretive scheme, made up of ideas, beliefs and values (Greenwood and Hinings, 1993). Organizational

structures and systems, as well as accounting ones (Dent, 1991), can be seen as embodiments of ideas, beliefs and values which constitute an overarching and prevailing interpretive scheme. A design archetype is, thus, a set of ideas, belief and values that shape prevailing conceptions of what an organization should be doing (domain), how it should be doing it (principles of organizing) and it should be judged (evaluation criteria), combined with structures and processes that implement and reinforce those ideas. According to this approach, change is not indiscriminate, but happens differently on the basis of the levels involved (i.e. systems and structures and/or interpretive schemes). The consistency of change with the existing archetype defines the distinction between incremental and radical change. The former takes place when organizations modify their structures and systems in a way that is consistent with the existing archetype. Radical change, instead, involves a shift in both structures and systems and interpretive schemes from an existing archetype to a new one (Greenwood and Hinings, 1996).

Strictly speaking, the object of a process of change deals with organizational structures and systems being changed (Hinings and Greenwood, 2002, Amis et al., 2004). In particular, existing literature characterizes the process of change through three dimensions: (i) pace, related to the speed and comprehensiveness of change, (ii) sequence, related to the existence of some key-structural elements and the order with which they change, and (iii) linearity or oscillation in the unfolding of the process of change itself. As said before, such dimensions have been initially analysed under a punctuated equilibrium perspective, although with often conflicting results. These are reviewed in more details in the following pages.

(i) Pace. A lack of attention on the pace of change can hide important dynamics of the process (Gersick, 1994). On the basis of the scale and pace of upheaval and adjustment, change is defined evolutionary when it occurs slowly and gradually, and revolutionary when it happens swiftly and affects virtually all parts of the organization simultaneously (Greenwood and Hinings, 1996). Some evidence indicates that evolutionary change that proceeds at a relatively slow speed is more effective. More gradual change is, indeed, seen as less disruptive and more manageable (Braybrooke and Lindblom, 1963, Hedberg et al., 1976, Quinn, 1980, Pettigrew et al., 1992). However, following a punctuated equilibrium perspective, other researchers suggest that for radical transformations to be accomplished changes must be implemented rapidly (Romanelli and Tushman, 1994). For Greenwood and Hinings (1996), the pace of change is related to the normative embeddedness of an organization with its

institutional context. The pace will be faster, the more the organization is bounded to the context.

(ii) Sequence. As pointed out earlier, much of the literature on change assumes that all elements of an organization change simultaneously. Nevertheless, change can involve all aspects of an organization or rather be selective. At the same way, it can differently be mainly prescribed or emergent. Very little is known about the sequence of activities that takes place during a process of change (Fox-Wolfgramm et al., 1998; Pettigrew et al., 2001; Van de Ven, 1992) and how this impacts the final outcome of the transformation. Organizational structures and systems are not neutral and value-free (Amis et al., 2004). Members give them meanings that incorporate interpretive schemes, values and interests that define the basis of the orientation and the strategic purpose of the organization (Ranson, Hinings, and Greenwood, 1980). These values and beliefs are more likely to be embedded in some key-elements than others. Such "high-impact" elements (Hinings and Greenwood, 1988; Kanter, 1983; Kikulis, Slack, and Hinings, 1995) are those with an important functional and symbolic role in the effective functioning of an organization. The little research related to this issue has focused specifically on implementation strategies (Dutton, Ashford, O'Neill, and Lawrence, 2001; Huy, 2001), resource allocation (Pettus, 2001), and leadership (Denis, Lamothe, and Langley, 2001). Such aspects, as much as performance measurement and reporting rules (Dent, 1991), inevitably affect the ways in which the organization gets engaged with the process of change. Some authors suggest that change needs first to be made to the more peripheral parts, moving then to the more contentious areas (Beer et al., 1990). However, the majority of evidence points out the need to change more central elements earlier than others, because their high symbolic value helps to convey the importance of the change itself (Pettigrew, 1985).

During processes of change prescribed frameworks of roles and relationships can also help secure a coherent organization. Evidence exists that change is usually planned (Bennis et al, 1985, Kotter, 1995), while emergent change can raise major resistance (Kimberly et al., 1980). In many cases, however, change itself starts at an emergent level (Mintzber, 1982).

(iii) Linearity. Existing literature points out the importance of the degree of linearity over time, magnitude, trend and periodicity of change (Monge, 1995). The extent to which organizations remain over time within a given archetype or move between archetypes is signalled by their movement across tracks, which can define a more or less linear trajectory. Four main tracks can be identified (Hinings and Greenwood, 1988): (i) reorientation, involving a shift from an archetype to another, (ii) inertia, showing the retaining of the old

archetype, (iii) discontinued excursion, implying temporary movements towards alternative archetypes, but the final return to the initial one, and (iv) unresolved excursion, occurring when an organization remains in an intermediate category over a long period of time.

Mueller et al. (2003) suggest modifications to this model, which lends too much weight to the role of a dominant interpretive scheme. A possible coexistence of different archetypes has been envisaged by Cooper et al. (1996), who propose a further view where the process of change happens, rather than by replacement of subsequent interpretive schemes and archetypes, by sedimentation. Sedimentation reflects a slow layered dialectical pattern of elements of new emerging structures, systems and beliefs sedimented with pre-existing ones (Malhotra and Hinings, 2005). It points out the persistence of values, ideas and practices, even when the formal structures and processes seem to change. Studies on the healthcare (Kitchener, 1999) and the legal sectors (Morris and Pinnington, 1999) observe both continuity and change where old and new forms of organization and ideologies coexist. In particular, McNulty and Ferlie (2004), drawing on a longitudinal comparative case study in the UK National Health Service, suggest that a sedimented rather than transformational change may be dominant due to the contradictions between New Public Management arrangements and process-related ideals. This suggests, again, that rapid pace is not a prerequisite for radical transformational change to occur. This also strengthens the characterization of the process of change in terms of a variety of oscillations and reversals.

3. Methods

Organizations set norms of behaviors, rules of communication and values related to accounting systems and structures (Dent 1991): planning and budgeting activities, systems of hierarchical accountability, performance appraisal, budgetary remuneration all depend on accounting practices. "Inevitably, therefore, accounting is likely to be implicated in organizations' cultural systems" (Dent, 1991, pp. 706) and permeate organizational activities, culture and values. Accounting systems embody by themselves assumptions about the organization, its rationality, authority and time. As a consequence, this paper examines processes of accounting change as an example of organizational change, affected by similar factors.

Change can be investigated at different levels of analysis: field, organizational or departmental (Dent et al., 2004; Kirkpatrick and Ackroyd, 2003b). I adopt a departmental

perspective where each Department can be seen as a self-standing case because: (i) Departments can have specific accounting systems and tools, different from the corporate ones, (ii) people within Departments bring their own values and ideas (more or less shared with the whole organization) related to accounting systems. This allows highlighting differences in change processes even within the same organization.

Authors claim that more work is needed to understand processes of change and justify the connection among the three dimensions of pace, linearity and sequence, most of all in terms of case comparison (Hinings and Greenwood, 2002; Amis et al, 2004). Case studies, in fact, allow a finer grained approach to understand dynamics and processes of change, i.e. how the process evolves and how we can define its elements in terms of reached outcomes and contents. To this paper aims, multiple comparative case studies were carried out (Patton, 2002). The comparison and contrast through intensive qualitative analysis of a limited number of cases allow to keep a more compact and explicit theoretical focus on the complex issue of change and to overcome some of the generalization problems arising from the analysis of a few cases (Eisenhardt, 1989; Pettigrew, 1990). To track change a longitudinal approach was adopted (McNulty and Ferlie, 2004). Process research requires conceptual frameworks that deal with context, incidents, activities, actions, sequences, and time in a dynamic way. One of the great challenges is dealing with time both theoretically and methodologically (Hinings, 1997). The process of change has been examined taking into consideration the period from 1995 to 2008. Over this time, I considered different kinds of change together. This helped identify the key-elements and understand how the three dimensions of the process interact. To the analysis aims, time has been divided into homogeneous periods of four years (with the exception of the last two years). Change, in fact, takes place over lengthy periods of time. Not less than three years are usually required to gain some indications on how the changes are proceeding and how different factors interact (Greenwood and Hinings, 1996; Huber and Van de Ven, 1995).

The research presents a comparative study of three Departments in two Canadian and two Italian Municipalities, making a total of twelve cases. The Municipality field seems to be particularly appropriate to investigate change because: (i) it is well defined and its organizations are under similar legal status and complexity of responsibilities; (ii) both Italian and Canadian Municipalities have undergone a continuous process of change since 1995, becoming an interesting field for organizational change studies. One of their major reforms has involved accounting systems and required a shift from the traditional bureaucratic

archetype to the managerial one. As a consequence, I take into consideration here the requested archetypal change in accounting structures and systems as an example of change; (iii) it is characterized by ambiguity on goals and performance standards (Hinings and Greenwood, 1988; Nahapiet, 1988; Abrahamson and Rosenkopf, 1993; Orrù et al., 1991; Scott and Meyer,1991; Mc Kinley et al. 1995).

In all Municipalities, which will be called E Town and C Town (Canadian Municipalities) and G and T Town (Italian Municipalities), the initial gatekeeper was the Chief Financial Officer. In order to increase the research validity a multisampling strategy was adopted. In particular, sampling was carried out in two main steps through (Patton, 2002): (i) maximum variation sampling. Departments were selected in a way to achieve a full range of variation in the dependent variable (i.e. the resulting outcome of change in accounting systems and structures). Moreover, in each Municipality three specific Departments were identified (Social Services, Environment and Public Infrastructures) in order to diversify their performed activities. The level of measurability of their output and services was thus considered as a proxy (Brown and Potoski, 2003). Public Infrastructures show the highest output measurability, followed by Environment and Social Services. This has further strengthened the variety in the type of accounting systems and tools put in place; (ii) stratified purposeful sampling. The sample was selected taking care of controlling for organizational size (i.e. only big Municipalities with a population between 600,000 and 1 million have been selected).

Case studies were carried out through specific interviews aiming to investigate interviewees' perceptions relevant to the questions under study. Interviewees were identified by snowball sampling. Two to three senior and middle managers from each Department were interviewed. Managers from the Finance Office were interviewed as well to track back the story of change in the organization and to control for other interviewees' answers. Given the need to reconstruct ex-post the process, a combined approach was adopted (Patton, 2002): semi-standardized open-ended questions aiming at increasing the comparability of answers (Flick, 2002), in particular, were combined with elements typical of the episodic interview in order to deepen personal perceptions and experiences.

All interviews were tape-recorded and transcribed. They reconstructed: (i) how new accounting tools affected organizational behaviors and interpretations over time and whether they were actually used; (ii) how the process of change developed; (iii) accounting tool characteristics (why they were adopted, their actual vs. expected purpose, their structure and content, the required competences, their evolution over time). Interview-notes were written-up

and analyzed within a few days after the interviews. Coding followed a theoretical approach to better identify both differences in perceptions along a continuum and possible emerging factors. Field notes were also separately taken in order to account for both interviewers' perceptions and interviewee's behaviors/reactions.

Finally, the analysis required the analysis of original documents to collect background data and reconstruct the process of change. The documents played a fundamental role also in order to double check interviewees' answers. For each Department I analysed: (i) official accounting documents (such as budgets, business plans, etc.) representing accounting changes; (ii) official documents presenting and communicating the adoption of new accounting tools and practices, in order to understand departmental formal aims; and (iii) unofficial documents, such as meeting notes, in order to collect informal reactions. Triangulation of data sources (i.e. interviews, filed notes and documents gathered from different informants) and tools (i.e. interviews, filed notes and documents) allowed increasing both the internal and conclusion validity of the study.

Variables identification

The dependent variable is here represented by the outcome of the process of change (i.e. radical vs. incremental change) in accounting systems and structures. Drawing on archetype theory, in order to reach radical change, both structures and systems and interpretive schemes have to change consistently (Greenwood and Hinings, 1996; Hinings and Greenwood, 1988). To assess the extent of archetypal change, questions have been asked to assess not only the existence, but also the actual use of the new accounting systems, structures and tools. Examples of the use of new tools were asked. Moreover, decision making criteria to take accounting decisions were investigated in order to understand whether decision making processes shifted from bureaucratic to managerial principles (see the next subsection). Finally, questions about the level of interviewees' agreement with new managerial ideas have been asked (Hinings and Greenwood, 1988). Literature has studied change looking at shifts between archetypes with different characteristics (Hinings and Greenwood, 1988; Kitchener, 1999; McNulty and Ferlie, 2004). The analyzed cases address a required change from a bureaucratic to a managerial archetype.

As far as the three dimensions of the process of change are concerned, I measured the pace of the process in terms of how fast change proceeds. I looked at both the number of years

necessary to achieve an archetypal change and the number of elements that moved per time at once. The pace will be evolutionary when change takes place over more periods and the amount of elements changed together at the beginning is relatively low. It will be revolutionary, when the periods of time to achieve change are few and many elements of the system are changed together.

The sequence of change has been investigated in a fully explorative way by looking at the "accounting elements" being changed. Drawing on existing literature (Pollit and Bouckaert, 2000, Osborne and Gaebler, 1992; Schedler, 2007; Olson et al., 1998), I identified the items that characterize the two competing archetypes, the bureaucratic and the managerial one, between which the shift is required in the Municipality field. I specifically focused on accounting elements within these archetypes (see Figure 1). Every item represents an element of the process of change. The validity of such elements has been strengthened by interviewees' answers, which eventually highlighted these items as building blocks of the accounting systems and, thus, as possible objects of change processes. The sequence of change in these items has then been tracked in order to understand whether there are key-elements that have to be moved in order to achieve different outcomes of change. The different nature of the items and the possible existing patterns among them have been observed and schematized.

Insert Figure 1 here

With the introduction of the managerial archetype, accounting systems and structures were supposed to move towards a non-incremental resource allocation (item i), with decentralized control systems, where single departments were responsible for reporting and bookkeeping (item ii - Pollit and Bouckaert, 2000, Osborne and Gaebler, 1992). The management and control of activities were supported by an increasing focus on performance measures (PMs) in terms of process efficiency and effectiveness, outputs and outcomes (item iv).

This shift was mirrored in performance appraisal systems related to employees and personnel, who were more and more evaluated on the basis of managerial competences and performances, rather than professional requirements (item iii - Hinings and Greenwood, 1988; Borgonovi, 1996). Simultaneously, the push towards private-like practices has usually resulted in the adoption of accrual-based accounting systems all over the world (item v - Pollit and Bouckaert, 2000, PriceWhatehouseandCooper, 2005).

The main declared purpose of the new accounting systems was no longer expenditure control and formal compliance, but cost efficiency and non-financial goal attainment (item vi). Similarly, the formal budget was supplemented by new tools that were claimed to be the main source of information for decision making purposes. Business plans, management executive budgets and performance reports were introduced in order to help managers steer the organization on more economically rational bases (item vii - Schedler, 2007, Hood, 1998; Olson et al., 1998). Such tools were mostly intended to become the new managers' dashboard and receive an increasing emphasis with respect to the old ones eventually still in place. As a consequence of these changes, also the reporting and accountability structures were clarified (item viii). In particular, managers became more autonomous (consistently with the increasing decentralization of controls) and were held accountable not only to the financial officer (initially responsible for all the traditional financial and appropriation-based accounting functions at the corporate level), but also to the controllers and auditors who were appointed after the introduction of the new managerial systems. This shift translated into the creation of ad-hoc auditing and strategic offices.

Finally, linearity is related to the identification of tracks (reorientation, inertia, discontinued excursion, unresolved excursion - Hinings and Greenwood, 1988). In particular, the measure of linearity is given by the number of reversals and stops that the process of change shows over time. By looking at the number of reversal and their evolution over time, then, it is possible to identify the different types of tracks.

Research setting: the managerial reform in the Canadian and the Italian context

The process of reform that started all over the world in the Nineties at the local government level is directly inspired to what has been called the New Public Management (NPM) (Hood, 1995, Pollit and Bouckeart, 2002). Within the NPM, one of the main reforms has involved governments' internal and external accounting systems (Olson et al., 1998; Steccolini, 2004). Accounting reforms have specifically concerned the introduction of: (i) accrual accounting systems, (ii) performance measuring and benchmarking tools, (iii) market oriented management systems (cash management, contracting-out, etc.), (iv) decentralization, (v) internal and external auditing systems (Pollit and Bouckeart, 2002; PriceWhatehouseandCooper, 2005). These were put in opposition to the traditional bureaucratic model of administration, embedded in laws and formal norms, where the main

focus of control was on procedures and a great importance was given to accountability on financial resources and inputs (Weber, 1992; Borgonovi, 1996; Hinings and Greenwood, 1988). Similar reforms have been carried out also in Canada and Italy.

The Italian Municipality field has been traditionally inspired by a "bureaucratic archetype", embedded in laws, norms, values and cultures (Behn, 1998; Borgonovi, 2005). Related control systems were mainly hierarchical and focused on procedures. A great importance was given to accountability on financial resources and inputs (Borgonovi, 2005). Accordingly, Municipality accounting was dominated by a form of "budgetary accounting", whose main purpose was to limit spending. In 1995 Municipality accounting was significantly reformed with the introduction of (i) the year-end accruals-based reporting, usually derived ex-post from the budgetary accounting, and (ii) the Executive Management Plan (EMP), identifying, for each performed activity, specific managerial objectives and targets to be achieved through the resources assigned in the legislative budget. In 1999 Municipalities were also required by law to introduce, clarify and keep separated four control systems: (i) controls on compliance, (ii) strategic planning and control, (iii) management control, and (iv) personnel performance evaluation.

As far as the Canadian cases are concerned, given the differences that can exist between Municipalities located under different province jurisdictions, the paper focuses specifically on two big Municipalities situated in one Canadian Province, which has been recognized as one of the most radical reformers (Harrison, 2005). In 1995, in particular, it was the first Province to recognize Municipalities with broader authority to operate thanks to the Municipal Government Act. The new legislation stated that Municipalities were endowed with natural person powers and the Council had broad authority within the delegated legislative jurisdiction. This legislation also introduced the concept of Municipalities as business-like corporations rather than a lower form of government. Moreover, it gave the city manager the power to re-organize the administration by eliminating structural duplications. The Act detailed the content of annual operating and capital budgets (consistent with accrual accounting principles) and the municipal debt limits. It required three-year business plans outlining objectives and goals, accompanied by a series of performance indicators and measures to reduce costs and improve accountability (Harrison, 2005).

4. The history of change in accounting systems and structures

E Town has about 730,400 inhabitants. It has an agricultural tradition and has been experiencing a big growth since the last decade due to the industrial development of the area. The City historically both cooperates and competes with C Town to become a best practice. Pressures in this respect are felt by all people within the organization. The history of the accounting changes experienced by E Town is described in Figure 2, 3 and 4, where both corporate and departmental changes are summarized following a progressive temporal order. While some of the managerial elements were already present in the Nineties (e.g. an accrual-based accounting system was already in place since the Eighties), most of the changes were introduced after the Municipal Government Act, which, however, left organizations wide autonomy to arrange as they wanted. In E Town the process of change started with the introduction of the corporate business plan. Ideas of increasing efficiency and effectiveness led the whole process of change until 2007, when the accounting system was finally decentralized to single Departments. In 2007, however, the organization also stopped updating the corporate business plan because of staff turnover. Among the analyzed Departments, only the Environment decided to actually give up this practice. Different IT systems where introduced mainly corporately, such as SAP in 1996 and Pacman (a project management module of SAP) in 2007. The only "bottom-up" change under this respect was represented by Class in 1995, a software that was meant to allow the Social Services Department to look at in-depth information on citizens' registration, rate per program, etc. In 2000 the Environment Department looked, instead, at C Town, which had been implementing the ISO14001 systems throughout the whole organization. The ISO 14000 environmental standards are meant to minimize organizations' negative effects on the environment and are related to specific environmental management systems. Such standards specify requirements for planning correct environmental policies, objectives and targets, controlling impacts of organizational activities and services, and correcting actions thought a final phase of management review. However, at the end of the period under study the integration between accounting and management systems and ISO ones can not be seen in E Town yet (an exception is the drainage service, which started the change some years earlier and had already in place a management system able to support the ISO requirements even before the certification).

C Town has about 1 million inhabitants. It's situated in an industrial area and, like E Town, underwent a huge process of growth during the last years. Famous as a forerunner in

managerial experiments and practices, it takes part in several best practice networks. The history of its corporate and departmental accounting changes is reported in time order in Figure 2, 3 and 4. Like E Town, C Town has been subject to the Municipal Government Act and an accrual-based accounting system was already present within the organization at the beginning of the period under study. First attempts of changes in budget processes and PMs started in early 1990s, so that business plans experiments were already present at the Departments' level. At the beginning of the period under analysis they showed already a corporately decentralized accounting system. It was centralized again in 2003 in order to make transactions quicker. Control systems already in place were modernized under the new Mayor's directions. For efficiency reasons a 3-year budget was introduced in 2006. PMs were linked to this new budget. In 2006 the "deputy owner" rule was introduced: managers became responsible and accountable for their own budget. They gained managerial autonomy to roll down their objectives through their organizational structure responsible for money and results. In the Environment Department, moreover, the clarification of roles between the strategic (responsible for management, communication and changes to interfaces) and the process (responsible for problem identification/resolution, routine) managers was the first example in Canada trying to answer management inefficiencies and improve communication.

G Town is a city situated in the North of Italy and has 620,000 inhabitants. It's situated in a historically industrial area, near the sea, and during the period under analysis it took part in several national competitions on managerial and accounting best practices. Figure 2, 3 and 4 show the accounting changes ongoing in the Departments during the period under analysis. As legally required, since 1995 all Departments introduced the EMP and the related personnel evaluation and management control systems. The Municipality then autonomously decided to go further with the accounting reform and to introduce an integrated accounting system, where accruals-based information is recovered and tracked during the whole year (not only at the end as prescribed by law). In 2000 the Social Services Department, one of the most proactive, started decentralizing service and accounting monitoring to local territorial offices. In the following years different kinds of reports were developed in order to help operational people to control and take decisions about their services. Also the Public Infrastructures tried to better customize the new accounting tools by linking in 2001/2002 their main planning tool, the triennial plan, to the EMP with its objectives and indicators. Such practice was abandoned the following year because of the difficulties in balancing political programmes (in the triennial plan) with managerial objectives (in the EMP).

Finally, T Town is an old industrial city in the North of Italy with a population of about 900,000. The Municipality is well known for its early managerial experimentations. Like G Town, T Town introduced the new accounting systems required by law, but without pushing them further (Figure 2, 3 and 4). In this Municipality most of the accounting changes introduced over the considered period were corporate-driven. Only few attempts were done, mostly by the Social Services and the Public Infrastructures Departments, to customize accounting tools and systems to their activities and information needs. Moreover, such attempts didn't always aim to embrace the new managerial archetype, but rather to better clarify and reproduce old bureaucratic systems (see, for example, Public Infrastructures and their controls on compliance).

Insert Figure 2, 3 and 4 here

5. Results and discussion

The outcome of the process of change

The analysis highlights that four Departments (the Social Services in E Town, the Environment in C Town and the Social Services and the Environment in G Town) out of twelve experienced a radical change. Such results are discussed in the following pages and categorized in more details in Table 1. In particular, radical change cases are presented, then incremental and no change are examined.

Before 1995, E Town's Social Services already had a departmental business plan and PMs. Taking the law requirements and the other corporate changes as an opportunity, in 1995 they asked IT people support for their activities and through a participated process they finally seemed to win the resistance (such as the silo culture) present in the Department. During all the period under analysis, they went on developing managerial ideas and tools in order to improve information quality. As a consequence, they were able to achieve a radical change already at the end of the second period:

> *"What I have seen in the time that I've been here is very much a different focus ..."*
> (Manager W, E Town's Social Services)

The Environment Department in C Town shows a different process of change, but with similar final results. Managerial changes were introduced since 1995, but the real radical change can be highlighted from 2003 with the Department's answer to some law and

organizational changes. The Department was also an early adopter of the ISO systems. During the interviews, however, managers underlined how that can be seen only as a form of bureaucratic and formal control on compliance, not a proper managerial tool for decision making:

> *"The ISO standards didn't affect our ways of reporting, maybe some processes... before there were only individual solutions. It would be interesting to audit the ISO process... we have time lines, you have to fix that and report back, but at a high level...ISO and management systems are two separate things..."* (C Town's Environment Manager P)

In G Town both the Social Services and the Environment Departments experienced radical change. In the former case, previous attempts of performance measurement were finalized over the period 2003-2006, when the Department actually developed its own indicators and reports in order to answer the growing need for service monitoring:

> *"We spontaneously developed our technical tools: the social service reports are useful to understand how we manage expenditures, the type of needs and demand we have, customers' age, etc. We can read the needs and make connections with the other management tools"* (Manager A, G Town's Social Services)

As in E Town, but with different results, the process of change in G Town's Environment Department was deeply influenced by the introduction of a quality certification system, the ISO 9001. It, indeed, helped people to focus on results and slowly move from input to output evaluation. New tools were actually used not only to control, but also to evaluate and plan future activities.

C Town's Social Services and Public Infrastructures underwent only a series of incremental changes, where only structures and systems changed towards a managerial archetype (see Figure 2, 3 and 4). In the former case, the only change often recalled as important is the 3-year budget, while the other managerial tools (such as the PMs), although pre-existing, don't seem to be understood or linked among them. The process of change and the related ideas were perceived as top-down constraints. As a consequence, people didn't feel committed to embrace the new archetype.

The latter case shows a situation where managers were still stuck to old bureaucratic tools and systems (i.e. the traditional budget) and saw the new ones only as formal templates to be filled in. Managerial ideas were not understood and rather competed with professional ones, which were however not strong enough to stop the spreading of new accounting systems in the Department.

Similarly, in T Towns' Social Services the introduction of new accounting and managerial tools were mainly interpreted as law-driven:

> *"We still have a bureaucratic compliance culture!"* (Manager E, T Town's Social Services)

In this Department, the only bottom-up "managerial" changes were represented by the service quality monitoring system (however tied to a general corporate trend) and the bookkeeping control on decentralized services introduced in the last period. In G Town's Public Infrastructures Department changes were introduced and attempts to better link old and new systems (e.g. the Triennial Plan and the EMP) and ideas were made. Nevertheless, such attempts resulted to be unsuccessful because many of the new accounting tools were (and still are) perceived as useless in everyday activities. Moreover, strong professional and technical values were able to slow down the process of change over all the 12 years under study.

Incremental or no change can be envisaged in the Environment and the Public Infrastructures of E Town. In the first case, corporate changes in accounting systems (such as business plan, SAP, etc.) introduced over the period under analysis didn't seem to play a major role in the management of activities (managers themselves don't refer to them). Systems were not integrated (data were held and used separately) and their actual use focused on the old ideas of formal compliance of activities. As a consequence, they became a tool of reproduction of bureaucratic values. In the Public Infrastructures case, change was just a formalization of existing professional practices and tools. Moreover, engineers had enough power to completely stop the adoption of incoming corporate changes, such as PMs, considered as a superfluous nuisance to their technical activities.

Even more restrictively, in T Town's Environment Department there were no other accounting changes than those centrally introduced. The main innovation was seen in the EMP that was anyway not understood or used:

"I would say that the EMP flew over our heads..." (Manager C, T Town's Environment)

In the Department they acknowledged the existence of a managerial reform still going on, but could not really point out improvements in their management activities, which went on as before the change. In the same organization, for the Public Infrastructures:

"We can have some objectives detailing the general ones, for activity coordination, for example. However, 90% of our objectives are related only to designing and implementing public works" (Manager B, T Town's Public Infrastructures)

As a consequence, the majority of the departmental performance indicators were related to time and work advancement. These also represented the link between performance appraisal and wages. Some measures were also related to the number of processed applications and resource monitoring. Managers themselves pointed out that the new managerial tools, especially for decision making aims, were seen only as formal requirements. The Department went on using its own monitoring systems, most of which were set much earlier than when the reform started. The new specific decision making tools, such as the triennial and the annual plans, were mainly programming and descriptive documents, with a cash- and obligation-based approach. The biggest change they claimed to introduce, the Technical office, was actually the attribution of apparently new meanings to a previously existing subject, which remained mainly concerned with compliance control and written communication, still reproducing the traditional bureaucratic archetype.

Insert Table 1 here

The dimensions of the process of change

Figures 2-4 summarize the evolution of the process in the twelve analyzed cases, highlighting the number and the sequence of changes in the accounting elements. Many of the changes that took place were corporately driven. The introduction of department-specific systems seems, instead, to be positively related to the type of service provided (more or less direct, such as Social Services) and negatively related to the presence of strong professional groups and ideas which compete with the managerial ones (see, for example, Public Infrastructures). In the

following paragraphs the three dimensions of the process of change in the twelve cases are explored. Their interaction is finally discussed.

Pace. Looking at the four cases of radical change, E Town's Social Services and G Town's Environment show a slower and more evolutionary pace of change with respect to C Town's Environment and G Town's Social Services. In E Town's Social Services radical change in terms of both structures and interpretive schemes takes place between the periods 1995-98 and 1999-2002 (when a new "PM manager" is hired) with an important wave of changes. In G Town's Environment radical change takes even longer to happen, involving almost three periods (from 1999 to 2008). In fact, the process of radical change finds its beginning with the introduction of the ISO 9001 system, which allowed the Department to develop its own PMs and monitoring systems, fully exploiting their autonomy. The process follows a slow and constant pace, where accounting changes are introduced and find further refinement over time, up to 2008:

> "*We cannot think of the ISO system as something static. Every office goes on adding new indicators. The last year also the external auditors pointed out that our measures are still too focused on time. We are shifting towards real performance measures*" (Manager M, G Town's Environment Department)

Also in C Town's Environment the process of change started in 1995, but it actually took place in 2003-06 with a massive number of changes altogether. From the interviewees' answers change seems to have happened in a quick and revolutionary way, maybe also thanks to the previous slow process of incremental changes which created a favourable path. Finally, in G Town's Social Services change takes place in 2003-2006 with the "sudden" development of departmental reports and tools aiming at supplementing the general information provided by the new corporate systems. It has to be noticed that the Social Services were able to introduce subsequently IT (see Webdistretti, aiming at monitoring on line all the information related to the service provision decentralized within the City, in order to get a comprehensive perspective), managerial (social service reports), and technical (technical reports) accounting tools. Different tools were thus provided to different users in order to fulfil their information needs. Such specialization allowed to customize also the information provided (see Figure 2).

Taking an overall perspective, radical change is characterized by an initial upsurge in terms of the number of elements that have to be changed. Those who didn't experience radical change

at the beginning had usually a period of inertia and then a new attempt to change. After the accomplishment of radical change, we usually find only a sequence of incremental adjustments. A certain settling time seems to be needed. Moreover, similarly to what found by Amis et al. (2004), after a radical change the amount of changes decreases over time, keeping however constant the process.

Incremental change appears in three different forms: (i) it's characterized by an evolutionary process with almost continuous attempts of change in case of the introduction of new tools more or less associated with the reproduction of old logics of compliance (see the Social Services in T Town, the Environment Department in E Town and T Town, the Public Infrastructures in G Town, Figure 2, 3 and 4); (ii) it shows a revolutionary pace in cases of repeated unsuccessful bursts of changes (see C Town's Social Services and Public Infrastructures); and (iii) when it's still incremental, but mainly in terms of formalization of pre-existing practices, it shows a pace that can be either revolutionary or evolutionary (E Town and T Town's Public Infrastructures respectively).

The pace of the process, in conclusion, doesn't seem to strictly influence the final outcome of change. No clear pattern emerges; rather both rates are possible. This is consistent with what previously found by Amis et al. (2004) in their empirical study, which concluded that fast-paced change early in the transition process doesn't ensure lasting, long-term transformations. Interestingly, I find that change moving both structures and interpretive schemes since the beginning of the process (i.e. around 1995, see E Town's Social Services and G Town's Environment) is characterized by evolutionary pace, while that actually taking place later in time (C Town's Environment and G Town's Social Services) shows a revolutionary rate. This is different from previous studies, since Amis et al. (2004) themselves didn't find cases of successful reorientations in the late fast-paced innovators. The present findings can be explained by the fact that over the different time periods a learning curve can be envisaged. New ideas, indeed, come in and need time to be internalized. Since 1995, those starting the process of radical change together with the spreading of the new ideas proceed more slowly. On the opposite, those who take more time to internalize new changes and ideas at the beginning, and only subsequently start the process of radical change, appear to change more quickly. Consistently with this interpretation, I find that the amount of changes, but not necessarily their level of relative importance and impact on the organization, is higher at the beginning of the process of change (1995), also as a consequence of external pushes. After the

experience with managerial ideas and change management increases, we can find another peak of changes in 2006 irrespective of the type of Department and country.

Sequence. A shift in the main decision making tools, such as business plan and EMP (element vii), is on average the first change that can be found throughout all the twelve Departments. Such a change, however, was mainly pushed by the law in both countries. As a result, it's present in both cases of radical and incremental change and some of the interviewees didn't even quote it as relevant for their decision making process (in contrast with PMs, which seemed to have a bigger impact in terms of change in the focus of activities and management). This element, then, cannot really be considered to identify a pattern of key-elements determining radical change.

Looking more in-depth (Figures 2-4), radical change seems to be identified by a joint change in element vi (main accounting systems purpose) and viii (accountability structure). These elements can affect positively the achievement of radical change under two perspectives: first, consistently with previous literature (Amis et al, 2004), a change in the purpose of accounting systems has a strong symbolic meaning. In terms of the accomplishment of archetypal change, this directly affects the subsequent change in values and ideas. Second, a change in reporting and accountability structures is directly linked to actual behaviours and use of new accounting systems. This, again, strengthens the accomplishment of radical change. The creation of both internal audit offices and strategic branches and the identification of internal auditors to whom to report, in particular, all represent drivers of change:

> *"The vision and the operation have really changed from being public service provider to being more like a corporation, with business finance and principles… With the devolvement of the strategic services arm we now have a centre of excellence for performance measurement; they are responsible for managing the whole"* (E Town's Social Services Manager MG)

> *"It's been a difficult task for the Internal Audit: we started identifying cross-departmental objectives and activities to be monitored. We previously had links between programmes and resources, but you knew how it was going only at the end of the year! Now you even know who is responsible for what"* (G Town's Internal Auditor)

Only G Town's Social Services seem to present a partially different pattern, where the accountability structure changes before the main accounting systems purpose. It has to be noted, however, that the timing of this change for Italian Municipalities was strongly influenced by the law, which in 1999 pushed towards the introduction of management control and audit systems. As a consequence, Municipalities had to introduce at once such new structures and appoint the respective controllers, separating previous responsibilities and creating a double line of accountability (CFO-controller). They couldn't really control the timing, which is, in fact, similar in all the Italian cases.

Changes in the main accounting systems purpose and accountability structure are then followed in all Departments by a revision in the focus of accounting systems and structures (element iv), which comes at the end of the considered time period (when the other two elements change as well) or even at the beginning of the next one. A change in the focus of the systems, then, represents the fundamental third key-element to achieve a complete radical change. Also this change can be said to have a strong impact on both the symbolic function of the systems themselves and the actual use of information. The different contents and the type of available information direct people's behaviours towards a certain archetype. This can consistently support radical change. It has to be noticed that contrary to what previously found by Amis et al. (2004), all these changes don't imply a change in decision making processes and tools in order to achieve a radical outcome.

Overall, radical change seems to be more likely where IT systems are introduced relatively early in the process (see Social Services in E Town and G Town, Figure 2). The pre-existence of specific and technical knowledge is, on the opposite, not enough to ensure alone radical change (see Public Infrastructures and Social Services in C Town). IT systems could have a symbolic meaning and represent a different structure that needs to be correspondingly revised in order to reach radical change. Furthermore, IT systems often represent the "tangible" side of accounting systems. Indeed, changes in accounting purposes, focus and basis find their actual implementation for managers in a change in their computer and technological interface. In E Town, for instance, SAP was introduced in 1996:

> "*It works better in some departments than others, depending on what the performance indicator is, it depends on how the systems is set up in the first place of hierarchy... The vision is that, every time, every indicator we have to report on, we want it automatically come off the system*" (E Town's Finance, Manager C)

A final remark has to be made for element v, i.e. the accounting basis. While in Canada such element had been already in place since a long time, only some Italian Departments (specifically in G Town) actually experienced a change towards an integrated accruals-based accounting system. Together with the sequence of changes identified above, this could represent a precondition for radical change to happen. A change in the accounting basis, indeed, represents a strong symbolic factor which requires people to reason on different principles and criteria (even the time of bookkeeping is different in the two systems). Moreover, it's often seen as the main pillar of private-like practices introduction and reforms.

Turning to the cases of incremental change, although change usually starts with the element vii, a non-precise sequence is followed. Public Infrastructures Departments, in particular, seem characterized by conflicting values (professional vs. managerial). As a consequence, they follow completely different patterns where the new decision making tools don't represent the main tool to manage their specific activities. They rather go on with previously existing ones or structure their own sector-specific systems (see Figure 4).

In general, where only corporate/top-down changes exist, and they are not supplemented by specific departmental ones, no radical change seems to happen. This can indirectly indicate the level of internalization of the new ideas by the Departments: those who internalize more tend to supplement and modify central systems according to their specific needs, and finally achieve a radical change. This seems to be true irrespectively of the country. As discussed before, different countries and Departments show similar sequences when they reach radical outcomes of change.

Linearity. The analysis of the twelve cases shows a small number of reversals, and only after long periods of time after the first introduction of the new systems (see Figures 2-4). This situation contrasts with what Amis et al. (2004) found, that is a tendency for change to be characterized by oscillations and reversals at sub-organizational levels. My cases, on the opposite, show quite smooth processes of both radical and incremental change. The presence of reversals in only three cases (C Town, G Town's Public Infrastructures and E Town's Environment), moreover, doesn't affect the achievement of radical change. A corporate and centralized reversal is present in C Town as far as accounting system decentralization is concerned. Nevertheless, the Environment Department was able to achieve radical change. Vice-versa, the presence of a reversal related to the business plan in E Town's Environment Department and of one concerning the link between the triennial plan and the EMP in the Public Infrastructures Department in G Town can not be said to be strictly related to their

failures in changing. A change prompted by external pressures tends to go on and new systems and structures are reproduced although they can be not actually used or understood. This is particularly true in the Municipality field, where most of the changes are made compulsory by law or other normative institutions. They must be at least formally introduced. In order to evaluate the actual effects of new systems and structures requiring a change in the existing archetype, moreover, a certain time is needed. This can further postpone and finally reduce the number of stops and reversals, especially in bigger organizations such as those under analysis, which tend to be more formalized and less flexible (Haas and Collen, 1963; Pugh et al., 1963; Quinn, 1985; Pasmore, 1994).

Looking at the tracks described by the twelve cases (Figure 5), in E Town's Social Services voluntary changes started even before 1995 and the corporate business plan. The usefulness of the new tools is recognized, they are understood and used. Although some of the managers recall a still alive "silo mentality", they are slowly but constantly reorienting themselves towards a radical change in both structures and values. Starting from 1995, they had two periods of major changes (1995-98 and 1999-2002). In 2002, in particular, a manager was hired and gave a new momentum to change:

> *"I came to work for the City in 2002. I've been in the army for 20 years before that. In my years in the military we introduced a number of processes for continuous quality improvements... When I came here there was no regular reporting framework or PM within our department. I was the one hired for creating that reporting framework"* (E Town's Social Services Manager B)

A different pattern with similar final outcomes is in C Town's Environment, where there is a fast radical change throughout all the main systems of the Department happening mainly in 2003-06. Changes are introduced and supported locally in order to make people more committed. A reorientation process is then visible, despite a reversal in terms of re-centralization of controls and accounting systems at the corporate level. The possible negative effect of such reversal might have been offset by the fact that it's been corporately driven, not decided by the single Department. As a consequence, it was intended as something that had to be done for efficiency reasons without room for discussion.

In G Town neither the Social Services nor the Environment present reversals. In the first case, the successful reorientation process is characterized by low organizational conflict, with a

high degree of people involvement in change decisions (showing, as a result, the development of different tools for different users). After the legislative reform and the corporate changes, radical change actually happens when the Department begins designing and implementing its own accounting systems and structures:

> *"Participation is more and more increasing. But it's natural, you need to run things in!"* (Manager M, G Town's Social Services)

In the case of the Environment, unlike in E Town, the new ISO systems seem to actually help managerial change to happen. Along with a constant process of introduction, the new quality system has been slowly set up in a way to achieve more and more awareness of the performed activities, determining a final reorientation towards the new archetype.

Turning to the cases of incremental change, in C Town's Social Services people seem to be aware of the tools, but not of their meaning. Tools are not considered useful and thus they are not used. They actually manage day-by-day activities through old templates, where the 3-year budget represents the major innovation that finds place because "it has to be done". All the new tools have been implemented corporately. The Department seems to be stuck between a discontinued (due to the reversal in the decentralization of controls, element ii) and an unresolved excursion (where the final destination of change is still unclear). Similarly, in Public Infrastructures changes are top-down driven and not understood. The managers often raise professional issues related to their engineering activity, but they don't have the strength to stop or re-direct corporate changes. They just add some specific technical standards and requirement to the process, which is characterized by many constant changes across all the examined periods, with a peak in 2003-06. Most of the change is still on the way and a "centralized" reversal is present, thus depicting a case of discontinued excursion.

G Town's Public Infrastructures Department also experienced one reversal (concerning the link between the triennial plan and the EMP), which doesn't affect directly the final outcome of change. The process seems rather to be characterized by a conflict between professional issues (engineers just ignore new managerial tools because they see them as useless and prefer to make up their own) and new managerial ideas. A discontinued excursion can be identified due to the presence of the reversal.

The Environment Department in E Town has focused on the introduction of a new managerial system, the ISO model, which actually helps reproduce old logics of auditing and formal

compliance. They lost sight of the other important accounting systems and structures, which remain barely touched by the process of change (they seem to be more advanced in some areas, such as drainage, where also the ISO system was put forward first). Management systems are not integrated with the PMs and the business plan. In 2007 they also experience a reversal due to the stop in the issuing of the latter. What can be envisaged at the departmental level is a discontinued excursion, which is almost inertia with a slow step-by-step process that lasted all the 12 years under analysis.

Almost inertia can be found also in T Town's Public Infrastructures, where most of the introduced changes are still attached to old bureaucratic ideas (e.g. the work advancement monitoring system). The managers don't even quote other corporate managerial systems to be used within the Department, while they expressly define the EMP as a mere formal duty that has to be done. The Technical office for compliance, moreover, actually represents just the re-enactment of a previously existing office, to which new powers (on compliance) are recognized.

Finally, three cases of unresolved excursion can be identified in E Town's Public Infrastructures and T Town's Social Services and Environment. E Town's Public Infrastructures are not concerned with a real managerial change, but rather a professional one. Change has been slow and led by engineering principles and revisions. The Department was able to shield unwanted corporate changes (see Table 1). This process of change cannot be defined as inertia, because they actually changed, but in a direction different from what expected. They, indeed, have in mind a professional engineering archetype towards which we could envisage reorientation. Looking at the managerial one, it's only an unresolved excursion with most of the changes happening at the beginning and at the end of the period under analysis.

T Town's Social Services are slowly trying to move towards the managerial archetype. They started the actual process of change by introducing some Department-specific systems and tools (Figure 2). Although all the managers interviewed point out the still existing difficulties to break with the old bureaucratic interpretive schemes, the Department seems to be in the middle of an unresolved excursion, likely moving towards a slow reorientation.

Lastly, the Environment in T Town shows no reversal, but an incremental change where new ideas and systems are not understood. The process identifies an unresolved excursion which is almost inertia: indeed, they introduced only the tools centrally and "legally" prescribed

without any customization on their activity. As a consequence, they are poorly used and don't seem to affect managerial activities at all. Some of the new tools are not even known (e.g. the "file data" for activity monitoring was not recognized by its name, even when the interviewees were specifically asked about it).

Interaction among the three dimensions. Looking at the interaction among pace, sequence and linearity of change (see Figure 5), a particular pattern emerges. Radical change, indeed, seems to be fostered by the right sequence of key-elements, irrespectively of the pace followed. Also the existence of corporate-driven reversals during the process of change doesn't affect the resulting outcome (see C Town's Environment). Under this respect, more studies are needed to look at cases of local departmental reversals in order to understand whether and how this can influence the change outcome.

Incremental change is influenced by very different patterns, where the pace and the presence of reversals can interact differently. The only common element is the existence of the wrong sequence of key-elements (Figure 5). Overall results, then, indicate that the sequence of changes is particularly important and can alone offset the possible negative influence of the other two dimensions (such as the presence of reversals).

The analysis of the interaction among the three elements of the process suggests that with both an evolutionary and a revolutionary process, some key-elements need to be changed jointly, in the right order and in big amount in order to identify a radical change. Tracking the processes, it emerges how different changes are often introduced together in a short period of time. Then, a period of stop or slow down follows. The big upheaval that can happen at the beginning or in the middle of the process has to be supported by a continuous process of change, revision and adjustment. What seems clear is that, despite previous literature findings (Amis et al., 2004), the only stringent and necessary condition for a successful reorientation is to follow the right sequence of change in the key-elements. This holds irrespectively of the type of Department and country considered. The analysed cases indicate that this sequence is not strictly related to decision making tools, but rather to the purpose, the accountability structure and the focus of such tools and systems. They are the ones able to foster change not only in structures, but also in interpretive schemes.

Insert Figure 5 here

6. Conclusions

This paper focused on the dimensions of the process of change and aimed at exploring whether they affect the probability of radical change to happen. In order to do this, cases of change in accounting structures and systems have been examined in twelve Municipalities.

All the examined organizations started their process of change after the issuing of a law, requiring the introduction of new managerial accounting tools. My results suggest that different Departments had different responses to change. Radical change is linked to a joint change in systems purpose and accountability structure, followed by a change in the focus. It seems to happen independently of the existence of reversals and with both revolutionary and evolutionary pace. In order to achieve radical change, then, organizations should pay more attention to the sequence of elements to be changed and their relative timing. Under this perspective, the study has two main implications: (i) managers should be aware of the results that different ways of managing the process of change can bring about, and (ii) in a reform process political decision makers should consider that a settling time is needed between different changes in order to absorb both new values and actual changes in systems and structures.

A contingent factor that emerges as affecting the outcome of change is also the type of Department and its related activity. Specifically, Public Infrastructures were embedded in a strong professional culture showing values often contradicting the managerial archetype. This conflict slowed down and even stopped the overall process of change. Managers and policy makers, thus, should also pay attention to the presence of possible competing interpretive schemes at the organizational level and to the type of activity performed and involved in the process of change.

The present study contributes to fill the literature gap concerning the role played by the process itself in affecting the final results of change (Hinings and Greenwood, 2002, Pettigrew et al., 2001; Amis et al., 2004). In particular, we get a better understanding of how the three dimensions of the process can affect the outcome of change. To these aims, both radical and incremental changes were considered. The study suggests that, consistently with Amis et al. (2004), processes of radical change can be characterized by both a revolutionary and evolutionary pace. This contradicts previous researchers, such as Romanelli and Tushman (1994), Warren (1984), and Hackman (1984), who suggest that radical transformations need to be made throughout an organization quickly and early in a change process. On the

opposite, I find that both new systems and structures and values and ideas need time to be internalized. As a consequence, those starting the process of radical change together with the spreading of the new ideas will proceed more slowly; while those who take more time to internalize new changes and ideas will show a faster pace of change later in the process.

Contrary to Amis et al. (2004), I find that the sequence of key-elements for a radical change are not strictly related to decision making tools, but rather to the purpose, the accountability structures and the focus of the systems put in place. Moreover, the sequence of changes being introduced revealed to be the dimension of the process which more strongly influences the final outcome of change, irrespectively of its pace and linearity.

Finally, I find processes of change to happen smoothly (i.e. with few stops and reversals) and to be characterized by an initial upsurge in the number of changes, followed by a relatively more stable period. This partially contrasts with Amis et al. (2004), who suggest the tendency for change to be characterized by oscillations and reversals. This finding could be related to the specific field and the type of organizations under study. The paper, indeed, investigates a field, Municipalities, which is still undergoing a process of managerialization attempting an archetypal change and which is characterized by high ambiguity, low output measurability and strong regulative influence. While much research previously focused on high technology industries (Tushman and Romanelli, 1994, Brown and Eisenhardt, 1997), this study provides a more in-depth analysis of previous findings in a different setting and gives some hints about how public sector reforms should be designed and carried out.

Further research is needed to analyse specific relationships among the three dimensions of the process of change and factors affecting them. In particular, my findings suggest exploring whether different sequences of elements are associated with specific outcomes and tracks of change (for example, cases of inertia). Moreover, the research opens the way to the study of the introduction of new practices, even different from accounting, in order to assess whether the features of the process of change vary with the nature and the content of the change being attempted. Further comparisons among different countries could be useful, under this respect, to better understand also the necessity of introducing specific elements during public organizations' reforms.

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Figures and Tables

Figure 1 – Accounting elements in the bureaucratic and the managerial archetype

	Bureaucratic Archetype	Managerial Archetype
Accounting structures and systems elements		
i - resource allocation systems	Incremental resource allocation system	Non-incremental resource allocation system
ii – centralization of control and information systems	Hierarchical bureaucratic control system, centralized data gathering, information processing and use	Decentralized control system, data gathering, information processing and use
iii – systems for performance appraisal	Formal evaluation, based on regulation and professional competence	Evaluation on efficiency and effectiveness criteria, professional and managerial competence
iv –information focus of accounting systems	Focus on input and formal procedures	Focus on processes, financial and non-financial outputs and outcomes (PMs)
v – accounting basis	Obligation and cash basis	Accrual basis
vi – purpose of accounting systems	Main purpose: to limit spending; to show compliance of actions with budget	Main purpose: to increase cost efficiency, orient behaviours toward non-financial goal attainment
vii – accounting tools for decision making purposes	Main decision making tool: budgetary accounting	Main decision making tools: business plan, executive budget, performance reporting
viii – reporting and accountability structures	Reporting to the Financial Officer	Reporting to the Financial Officer and the Controller

Figure 2 –Process of accounting change in Social Services

Social Services Department				
Town/Years	**1995-98**	**1999-2002**	**2003-2006**	**2007-08**
C Town	Pre-existing departmental PMs on trends, strategies and inputs/outputs Corporate Business plan and related financial and strategic objectives/measures	Corporate integrated IT system (HR, accounting and finance) Infra annual financial report (3 times per year) Corporate reorganization	Recentralization of the finance function Control systems update (risk management) First 3 year budget (operating) Corporate PMs restructuring PMs monitored quarterly at strategic level: improved quality and detail (number of participants vs. possible facilities uses, number of participants in registered programs per class of citizens, citizens' satisfaction, etc.) Deputy owners	First 3 year budget (capital)
No. of changes	1	3	6	1

Sequence	vii (ii and v already existing)	-	iv, vi, reversal (ii)	-
E Town	Pre-existing departmental Business Plan and PMs (financial and non-financial) Corporate business plan SAP corporate introduction Class departmental introduction Project City 97 reorganization and departments amalgamation: departmental creation of a strategic service Integration of Class with the other departmental systems	New push towards non-financial PMs (for the new leader's arrival in 2002)	Fusion of Community service and Emergency departments	Finance function decentralization SAP non-financial integration and reporting Stop to the corporate business plan, the department goes on by its own
No. of changes	5	1	1	2
Sequence	vii, vi, viii (v already existing)	iv	-	ii
G Town	Previous attempts of financial and non-financial performance measures Integrated corporate accrual accounting system Corporate EMP by objectives Corporate personnel evaluation (pay-related) on results	Corporate management control systems and Internal Audit office Corporate management control and cash based accounting decentralization Territorial decentralization of accounting functions	Mayor's Strategic Plan Corporate Cost accounting (standard and actual costs) Social Service Reports (service expressed demand, demanded quantities, manifested needs, financial resources, etc.) Inspections, random quality control, customer satisfaction surveys Webdistretti software introduction (Social Services intranet and monitoring) Corporate dashboard: six month performance reporting (direct and indirect costs per area and service, demand monitoring, efficiency and effectiveness indicators)	Technical Reports (detailed information about the customer cases actually charged to the Municipality: customer's needs, actions taken, evolution over time) External service accreditation (and related indicators/ standards) Corporate Accrual accounting decentralization New Corporate Strategic Plan by objectives and year by year investments
No. of changes	3	3	6	4
Sequence	v, iii	ii, i, viii	vii, vi, iv	-
T Town	Pre-existing corporate personnel evaluation (pay-related) on specific results and objectives and departmental infra-annual personnel evaluation Corporate reorganization by divisions Corporate ex-post accrual accounting Corporate EMP by objectives Unstructured departmental financial reporting (every 2/3 years)	Corporate management control systems (first experiments in 1980) and Internal Audit office Corporate management control and cash based accounting decentralization Structured departmental cash based reporting Service quality monitoring system Link btw the service quality monitoring system and the EMP	Corporate Social Reporting Corporate Cost accounting by service area on cash based accounting information	Corporate "File data" (monitoring of service costs, customers, expenditures, etc.) Bookkeeping control and expenditure monitoring on locally decentralized services Regulatory Social Plan (political document) demand monitoring and programming (territorial service integration and expenditures planning)
No. of changes	4	5	2	3
Sequence	(iii already existing)	ii, viii, iv, vii	-	-

Figure 3 – Process of accounting change in Environment

Environment Department				
Town/Years	**1995-98**	**1999-2002**	**2003-2006**	**2007-08**
C Town	Corporate Business plan and related financial and strategic objectives/measures	Corporate integrated IT system (HR, accounting and finance) Infra annual financial report (3 times per year) Corporate reorganization	Recentralization of the finance function Control systems update (risk management) Long range planning: i) water efficiency plan, ii) storm strategy (10 year program requiring money) driven by regulatory changes Department reorganization: construction group integration First 3 year budget (operating) Identification of strategic and process responsibilities Corporate PMs restructuring Development of specific departmental PMs for operational and customer purposes (they didn't know some already existing, 160 ratio now) Deputy owners	First 3 year budget (capital) Budget monitoring and reporting systems (by activity) with immediate online update and fully accessible within the department. SPL software (tracking work on the field) introduction Department reorganization: from functional model on services (waterworks and wastewater to water services and resources).
No. of changes	1	3	9	4
Sequence	vii (ii and v already existing)	-	vi, viii, iv, reversal (ii)	-
E Town	Corporate Business plan and related financial and strategic objectives/measures SAP corporate introduction Project City 97 reorganization and departments amalgamation	ISO system first attempts for Water and Waste Management	ISO system certification for Water and Waste Management ISO system first attempts for the other branches and areas (still ongoing)	Finance function decentralization SAP non-financial integration and reporting First more structured link personnel objectives and targets-pay for the equipment branch Stop to the corporate business plan, the Department stops as well
No. of changes	3	1	2	4
Sequence	vii (v already existing)	-	vi	ii, reversal (vii)
G Town	Integrated corporate accrual accounting system Corporate EMP by objectives (pre-existing manual system, cash based focus) Corporate personnel evaluation (pay-related) on results	Corporate management control systems and Internal Audit office Corporate management control and cash based accounting decentralization ISO 9001 Certification Link btw the ISO 9001 system and the EMP	Mayor's Strategic Plan Corporate Cost accounting (on standard costs, real costs) Corporate dashboard: six month performance reporting (direct and indirect costs per area and service, demand monitoring, efficiency and effectiveness indicators)	Corporate Accrual accounting decentralization New Corporate Strategic Plan by objectives and year by year investments First structured link among strategic guidelines, budget and objectives 2008 First "Air quality" strategic plan
No. of changes	3	4	3	4

Sequence	v, iii	ii, viii, vi, vii	-	iv, i
T Town	Pre-existing corporate personnel evaluation (pay-related) on specific results and objectives Corporate reorganization by divisions Corporate ex-post accrual accounting Corporate EMP by objectives	Corporate management control systems (first experiments in 1980) and Internal Audit office Corporate management control and cash based accounting decentralization	Corporate Social Reporting Corporate Cost accounting by service area on cash based accounting information Customer-based service catalogue	Corporate "File data" (monitoring of service costs, customers, expenditures, etc.)
No. of changes	3	2	3	1
Sequence	(iii already existing)	ii, viii	-	iv

Figure 4 – Process of accounting change in Public Infrastructures

Infrastructures Department				
Town/Years	**1995-98**	**1999-2002**	**2003-2006**	**2007-08**
C Town	Almost 30 years ago: infrastructure PMs, payment quality index tracking service conditions of city constructions (puddle per km, new residential units per population, number of building permits issued per population, construction value of total building permits issued per capita, etc.). Corporate Business plan and related financial and strategic objectives/measures PMs on customer based measures and expectations on the service. Link btw performance appraisal (objectives and indicators) and recognition programs to allow employees to "thank" other employees with a cash reward when projects are accomplished	Corporate integrated IT system (HR, accounting and finance) Infra annual financial report (3 times per year) Corporate reorganization	Recentralization of the finance function Control systems update (risk management) Structured but not complete inventory for roads and large infrastructures Infrastructure strategic report First 3 year budget (operating) Corporate PMs restructuring Deputy owners	First 3 year budget (capital) From historical cash-based budget to a Zero Based Budgeting for capital budget Accrual accounting asset depreciation from CCAA and PSAB Construction record building, economic analysis on inflation trend. First structured link among performance target and business plan, Infrastructure cost analysis with RIVA (real time infrastructure valuation analysis) like life cycle analysis and reporting.
No. of changes	3	3	7	5
Sequence	iv, iii (ii and v already existing)	-	reversal (ii)	i
E Town	Corporate Business plan and related financial and strategic objectives/measures SAP corporate introduction Transportation Masterplan Project Management Guidelines for Road construction	Drainage ISO certification	Drainage revision of PMs (cost analysis)	Finance function decentralization SAP non-financial integration and reporting Pacman software introduction Stop to the corporate Business plan, the department goes on by its own Initial stage of non-financial PMs

	Project City 97 reorganization and departments amalgamation			development Departmental responsibility reorganization Project management introduction for capital planning
No. of changes	5	1	1	6
Sequence	i (v already existing)	-	iv	ii
G Town	Pre-existing compulsory PMs (sector specific regulation) Integrated corporate accrual accounting system Corporate EMP by objectives Corporate personnel evaluation (pay-related) on results	Corporate management control systems and Internal Audit office Corporate management control and cash based accounting decentralization Triennial and Annual investment Plans Structured link btw Triennial Plan and EMP GULP software introduction (monitoring system for public works advancement, time and phases)	Mayor's Strategic Plan Stop to the link btw Triennial Plan and EMP Corporate Cost accounting (on standard costs, real costs) Corporate dashboard: six month performance reporting (direct and indirect costs per area and service, demand monitoring, efficiency and effectiveness indicators)	Project files introduction (financial and work advancement reporting) Corporate Accrual accounting decentralization New Corporate Strategic Plan by objectives and year by year investments
No. of changes	3	5	4	3
Sequence	v, iii	ii, viii, vii	reversal (vii)	-
T Town	Pre-existing corporate personnel evaluation (pay-related) on specific results and objectives Corporate reorganization by divisions Corporate ex-post accrual accounting Corporate EMP by objectives Triennial and annual public infrastructures plans Public infrastructures and work advancement monitoring system (monthly) and related resource bookkeeping	Corporate management control systems (first experiments in 1980) and Internal Audit office Corporate management control and cash based accounting decentralization Technical office (within the Pub. Infr. Department) for activity monitoring, random technical and financial compliance check, training, support and communication Link btw the management control system and the public infrastructure control on technical and financial compliance	Corporate Social Reporting Corporate Cost accounting by service area on cash based accounting information	Corporate "File data" (monitoring of service costs, customers, expenditures, etc.)
No. of changes	5	4	2	1
Sequence	(iii already existing)	ii, viii, iv	-	-

Figure 5 – Pace, sequence, linearity and change: a summary

	Pace	Sequence (time order)	Linearity	Overall
E Town				
Social Services	Evolutionary	Decision making tools (vii) Purpose of accounting systems (vi) Accountability structures (viii) Information focus (iv) Centralization of control (ii)	Reorientation (1995-2002)	Radical Change
Environment	Evolutionary	Decision making tools (vii) Purpose of accounting systems (vi) Centralization of control (ii)	Discontinued excursion/inertia	Incremental change/no change
Public Infrastructures	Revolutionary	Resource allocation (i) Information focus (iv) Centralization of control (ii)	Unresolved excursion	Incremental change/no change
C Town				
Social Services	Revolutionary	Decision making tools (vii) Information focus (iv) Purpose of accounting systems (vi)	Discontinued/unresolved excursion	Incremental change
Environment	Revolutionary	Decision making tools (vii) Purpose of accounting systems (vi) Accountability structures (viii) Information focus (iv)	Reorientation (2003-2006)	Radical change
Public Infrastructures	Revolutionary	Information focus (iv) Performance appraisal (iii) Resource allocation (i)	Discontinued excursion	Incremental change
G Town				
Social Services	Revolutionary	Accounting basis (v) Performance appraisal (iii) Centralization of control (ii) Resource allocation (i) Accountability structures (viii) Decision making tools (vii) Purpose of accounting systems (vi) Information focus (iv)	Reorientation (2003-2006)	Radical change
Environment	Evolutionary	Accounting basis (v) Performance appraisal (iii) Centralization of control (ii) Accountability structures (viii) Purpose of accounting systems (vi) Decision making tools (vii) Information focus (iv) Resource allocation (i)	Reorientation (1999-2008)	Radical change

Public Infrastructures	Evolutionary	Performance appraisal (iii) Accounting basis (v) Centralization of control (ii) Accountability structures (viii) Decision making tools (vii)	Discontinued excursion	Incremental change
T Town				
Social Services	Evolutionary	Centralization of control (ii) Accountability structures (viii) Information focus (iv) Decision making tools (vii)	Unresolved excursion	Incremental change
Environment	Evolutionary	Centralization of control (ii) Accountability structures (viii) Information focus (iv)	Unresolved excursion	Incremental change/no change
Public Infrastructures	Evolutionary	Centralization of control (ii) Accountability structures (viii) Information focus (iv)	Inertia	Incremental change/no change

Table 1 – Archetypal changes and interpretive schemes: some quotes

	E Town	C Town	T Town	G Town
Social Services	**Radical Change** Manager MG *"I would say that certainly the awareness to address some of these keys in this scenario has definitely occurred. Things like safety, turnover rate were never addressed before. Performance measurements are really used to monitor past performance and look at areas that should be improved."* *"Before when we want to get budget numbers, we want to get information regards our business areas, we would have to rely on that individual business area to provide that information. Now we all have SAP on our computer and we withdraw it. So in an efficient, effective perspective is much easier."* Manager W *"What I have seen in the time that I've been here is very much a different focus …*	**Incremental change** Manager J *"Of all the changes, PMs are the most difficult ones to deal with. There were PMs when I joined the City (number of service delivered, number of clients seen in my business). It was always in there but it was very sort of input/output. The major shift in PMs over the last 3 years has been to outcome and meaningful PMs to the citizens."* *"There is a lot of information available. I'd dare say though that there are a lot of people at my level that also with that information you got the responsibility on how to get it and to know how to use it. And people don't know how to get it and use it… so they don't have anything yet! All this wonderful stuff sits there on a computer somewhere, I can access, but I don't know how to do it…"*	**Incremental change** Manager M *"For us it's fundamental to control revenues and expenditures… When we prepare the EMP, we try to split the legislative budget…"* *"Fila Data has the aim to understand citizens' needs and population trends in order to lead budget appropriations. We weren't involved in the preparation, we had just to insert expenditure data"* *"It was hard to change mentality, and it didn't change completely yet: looking not only at the number, but behind it"* *"People feel more responsible and aware of expenditures"* *"Our reports usually follow the steps and the deadlines of the legislative budget"* Manager E *"There was a scandal and the City Manager decided to step back, so our*	**Radical change** Manager A *"The cost accounting system didn't affect us… we appreciated more the EMP and the related indicators and objectives"* *"Such tools either are well prepared or they are just lived as a weight, a formal requirement without answering our real information needs."* *"The consequence of such reform was to focus more on real problems, avoiding mere perceptions, increasing analysis and information. Surely our approach to decision making and problem solving changed, although gradually and in different ways depending on the type of service"* Manager F *"It wasn't easy… even today… the EMP should be more descriptive"* *"There is now a higher consciousness of*

	before, it is the budget, you do what you can within your budget. Now there seems to be a bit more of attempt to do what is right. Before it didn't matter: how much tax levy dollars were going to run our facilities. Now it's "ok, there is the tax levy plus your earning revenues. You are charging fees to people to attend the facility so what is the cost recovery ratio?"" Manager B *"Before 2002 they had the same data they collected before like response time in fire and ambulance services and other pieces of data around that, but it was never really presented in a regular format... what was going on also at the same time was a reemphasis/reintroduction of a sort of business planning for each department. And so we tried to bring and create a report that we complete every quarter..."*	Manager M *"There is more accountability in terms of the running of the financial statement."* *"At a very high level they tend to look at PMs quarterly, but for sure they look at it on an annual basis. And when they prepare the annual budget they always look at that closer... so that they can adjust accordingly."* *"One effect of the 3 year budget cycle is that council members used to spend days and night going through the budget to approve the budget of each department. Now they focus at a high level, the time is reduced and they don't have to ask all those questions. They only have to approve the change..."*	*objectives became less strategic and more related to our ordinary activities"* *"In order to take decisions we look at quality indicators, not at the EMP, which is more seen as just a tool for formal compliance with the law"*	*expenses, of what you do. Cost accounting makes clear the final result of your activities. It's useful for both politicians and managers: it helps decision making!"*
Enviro nment	**Incremental/no change** Manager BK *"In drainage we were different because when we started putting our system in place there wasn't a lot of change."* *"Now you have this software (SAP) trying to run your business activity. It's the other way around: your business should be running on projects and efficiency and how to best use it. But it came from the top management, we didn't do anything. They didn't customize so much. We use it as much as the previous system."* Manager M *"Definitely we know we are moving forward with the less optimal situation, and the integration is the best way to go, but it was just a logistic reason so we had to move forward with a non integrated*	**Radical change** Manager B *"With the new multiyear reporting system, if you make changes in the morning and you want to see them in the afternoon you make a demand and it's updated...."* *"Everyone is the owner of part of the system, that is our approach, And it's slowly taking in... There are small areas of responsibility and within those areas you have ways to spend your money, and to show it by activity."* *"All the changes were almost too much at once, that's why we changed this, this and that, but we had to have a proper migration into all these changes."* *"A consequence of these changes? Now they are not afraid to go and ask others about, maybe a traditional way of process, that has been used for years and years and*	**Incremental/no change** Manager B *"Our bigger problem is learning to measure. I think it's a problem for all bureaucratic organizations"* *"The EMP and the PMs are not a way to take responsibilities, but to stay in your own borders..."* *"I've been in the public sector for many years and I realized law is slowly changing the way people work, control deadlines, measures... for examples, without the EMP we would have never redesigned our website. There would have always been something more important to do!"* Manager C *"I would say that the EMP flew over our heads...The reason we monitor a specific objective is not because it's in the EMP.*	**Radical change** Manager G *"We never interpreted the EMP as a management tool, it's not linked to actual expenditures. It's not really the tool we look at to take decisions during the year. We usually have other tools..."* *"At the beginning in order to identify our objective, we just described our day-to-day activities. It's still the same, but the logic changed: now we identify an objective, we explain that the context is much more complex, we have less staff, we need more efficiency..."* *"After the reform innovation was more related to law, turnover and de-bureaucratization, rather than single new accounting systems and tools"* *"With the ISO certificate you have to pass controls, you can't cheat, you have to*

	system. There was definitely some spot of how the ISO would fit in there and that was done more informally than I would say with a formal process going through what are our business plan objectives here and what are our strategic plan objectives and how ISO is gonna implement those objectives" *"I think there is a general overall understanding and definitely not an understanding of the power of SAP. We only use it for the minimum amount we can use it and control what our top management wants us to control."* Manager A *"Before we just relied on Microsoft-type tools, word, excel and different database stuff. You could appreciate that that created problems because we got a sort of path solutions, but it's not like everything integrated and connected."* *"Well, the accounting system really isn't a part of our system at all. It is really minimal"*	*is more effective... It also brought some improvements in the way they look at the job."* *"You can find everything you wish to report to, number of hours, type of workers involved..., all the details to know if you have maintained or increased your asset base. The reporting is there, but it's something you need to work with..."* Manager P *"Change forced you to look into long term programs and start link PMs more tightly to the program. So rather than going back every year and ask for money, you can take a longer term view and you can manage a project more with performance indicators: "am I meeting my goals and targets in terms of revenues, liters per capita per year, water demand". I can track and you can sense..."* *"To run my division, in terms of the programs, we are not really set up to give us project specifics. The financial reports are built for finance people, so we have to come and extract financial information related to our project ... it's linking financial information to the PMs, is really what lacking. And actually we bring them together. In the middle myself, what I do is I relate the two! I go to the finance "give me this...""*	*Moreover, we manage in the way we did before..."* *"All my objectives are identified in relation to what I know I'll be doing during the next year. You don't identify an objective that you know to be unreachable."* *"This is a public organization. It's been accustomed for year to work in a certain way. Suddenly you find new projects and tools that don't fit with the public employee's culture anymore"* Manager MF *"If I think of the EMP, I immediately think of the legislative budget!"* *"The EMP helped systematize our work"*	*follow deadlines and demands have a chronological order... the system is not flexible. There is no doubt the department changed and improved its efficiency"* Manager M *"The link between the ISO system and the EMP was quite natural: we realized that some indicators could be used for both. It was easy because they were already embedded in our culture and our understanding of what an objective is"*
Public Infrastructures	**Incremental/no change** Manager K *"We are still trying to develop some PMs, but I guess we realized that we're only a small implementer in regards to contract pricing and how quickly contracts can perform their work on the field"* *"The performance measurement is a struggle... If we can come up with true indicators identifying how we perform,*	**Incremental change** Manager S *"People are starting now to track infrastructures and even infrastructure based PMs: how many water main breaks per kilometre... only very recently, we started to think about customized key PMs."* *"There is still the perception "I wish it was the way it was... now there is much more*	**Incremental/no change** Manager B *"The EMP didn't change much our activity. We already had our specific regulation, we already monitored public infrastructures..."* *"The EMP contains the objectives related to people's pay and incentives. It's important because it touches wages!"* *"One of our main control tools concerns*	**Incremental change** Manager B *"We have the same tools they use at the central offices, so we monitor commitments to be paid and establishments of account receivables to be recovered and expenditures... Their management is decentralized."* *"We use the EMP, but we still don't own it"*

we're all onboard. But if we cant find a true indicator, then we don't want to measure it"

"After the change we really used the same decision... it really clarified and made roles simpler. No more questions, no more confusion, no more contradictions in regards to who is responsible in doing what. It was more a matter of clarifying, there wasn't something new."

Manager H

"A bureaucracy (talking about the Municipality) always has a tedious process of incremental approval."

"Ours is very much an engineering entity, a drainage utility can be very quantitative, so we have a lot of decisions that have to be taken numerically, whereas our counterparts in social services, it is very difficult for them to quantify"

"The information you have in the reporting...this is pretty hard to take decisions on."

Manager W

"Before project management, all of phases were there, but they were disconnected. What I have done is to organize it differently and the project manager who could see the whole picture of the project and be accountable for the whole project."

"There was no criterion to take decision previously. It's coming. Some have taken it and run with it; others are still in a learning process, still figuring it out, trying to fill their way."

"We use primarily financial information: project payments, project plans, capacity of the budget, spending. There are some measurement tools in it, but it's primarily on accounting factors..."

confusion..." After 3 years, now I can almost see the processes, they now start to go on their own..."

"I think we made matters worse by doing 3 year budgeting... We got the money and we have to figure out how to spend it... my mum told me "be careful what you ask because you could get it!" The problem we are having here is we are starting to see our managers and project managers inflating the costs because I've gone from a 1 year accounting to a 3 year accounting basis. Can you tell me how an engineer can forecast a capital cost over 3 years? So what they do is they buffer the cost, they guess..."

"The business planning exercise is only intended to fill in a template!"

"How do I actually use this information to make this decision? Here, tell me what your PMs are! What? What are PMs?? Of course we don't look at those data to decide, we decide on intuition!"

Manager J

"My impression is this business unit has its own systems..."

"The business plan is not yet used as an output... A lot of the decision is historical based.... This is my perception."

control on compliance"

Manager C

"We try to hold people accountable not only on expenditures, but the overall consumption. But they don't feel responsible for that yet"

"New systems would imply a real managerial activity on services, resources, responsibilities. We are more used to compliance"

"Cost accounting doesn't influence our activities because it's limited at current items..."

"A consequence of such changes is we are more active, we understand better even things not directly related to our activities."

"Management control systems should help our activity, while at the moment they are a duty, a formal requirement"

"To take decisions in our day-to-day activities we look at our technical tools and documents."

"Most of us just endured the change, because it was unavoidable. This way it was less painful maybe. At the beginning it was just a formal requirement: public works monitoring, Gant diagrams, etc. Now it's a kind of routine."

Manager D

"There is a kind of monitoring. It's managed through meetings and informal discussions"

Manager R

"We are not used to the EMP yet ..."

"Things are more political than technical, more related to visibility than real substance."

"With respect to the past, conflict has increased thanks to the reforms"

"Now I'm responsible of the documents I sign. It forces me to be aware of my role!"

Disruptive vs. Sedimented processes: organizational dynamics and patterns fostering radical accounting change

Mariannunziata Liguori[1]

Abstract

Why and how accounting evolves through time and within specific organizational settings has been addressed by an important body of literature. This paper contributes to get a better understanding of the role of intra-organizational dynamics in affecting different outcomes of change, even under similar external processes. By investigating accounting change in Italian and Canadian Municipalities through the conceptual lenses of archetype theory, the paper looks at how the intra-organizational dynamics combine with the pattern of the process of change (disruptive vs. sedimented) to foster the final outcome of change. In particular, while Italian Municipalities underwent a more disruptive process, Canada shows a more constant and layered pattern. Results show that with both the patterns of process, radical change is signaled by the shift to a higher level of satisfaction with the new archetype and high and dispersed technical capabilities. In cases of sedimented process, radical change will more likely result from reformative commitment, while disruptive change allows both competitive and reformative patterns. Power is more dispersed in disruptive radical change than in sedimented one. Leadership is transformational in both cases, but substantive in the former case and symbolic in the latter. Some emerging personal and contingent variables are finally discussed.

1. Introduction

Why and how accounting evolves through time and within specific organizational settings has been addressed by an important body of literature and through different approaches. Existing literature, however, has mainly focused on the content of change and why it occurs, while the issue of how radical change is accomplished is relatively under-explored in both accounting and more general management literature (Thrane, 2007; Malhotra and Hinings, 2005). Available studies, in particular, are not able to explain different results of accounting change efforts at the organizational level, even under similar external processes and pressures (Barley

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and Tolbert, 1997; Pettigrew et al., 1992; Covaleski et al. 2003; Etherington and Richardson, 1994; Tsamenyi et al., 2006; Ezzamel et al, 2007). Why, even in presence of different processes of change, do organizations show similar responses to change? And why, on the contrary, do some of them show different results in the change efforts, even under similar external pressures and processes?

I posit that archetype theory (Hinings and Greenwood, 1998; Greenwood and Hinings, 1993, 1996) can actually help overcome some of the limitations that can be found in previous studies. By investigating multiple cases of accounting change, in particular, my purpose is to look at how intra-organizational dynamics combine with the patterns of the process (disruptive vs. sedimented) to actually foster or hinder the final outcome of change. Considering different patterns of the process of change, the paper thus aims at investigating: (i) why radical change happens, and (ii) what the intra-organizational variables that drive a radical change are. I specifically draw here on archetype theory (Greenwood and Hinings, 1993, 1996) to identify radical and incremental outcomes of change.

The paper analyses the cases of three Departments in two Italian and two Canadian Municipalities (a total of twelve cases). Over the last decade both countries carried out a process of reform aiming at shifting from a bureaucratic archetype to a managerial one. In particular, the processes of reform were inspired by the New Public Management (NPM) principles (Hood, 1995; Pollit and Bouckeart, 2000) and directly affected Municipalities' accounting systems and structures. Processes of change can unfold following different patterns. At one extreme, according to punctuated equilibrium theory (Miller and Friesen, 1984; Tushman and Romanelli, 1985; Romanelli and Tushman, 1994; Fox-Wolfgramm et al., 1998; Nadler and Tushman, 1989), change happens quickly and disruptively, while at the other, according to sedimentation theory (Clegg, 1981; Cooper et al., 1996; Morris and Pinnington, 1999; Malhotra and Hinings, 2005), change is characterized by sedimented attempts and layering of both old and new ideas and structures. While Italy underwent what can be defined a more disruptive process of change, Canada shows a more constant and layered pattern. Such cases represent a suitable field to investigate intra-organizational dynamics under a double perspective, i.e. both keeping the overall pattern of change constant (by looking at different outcomes of accounting change at the organizational level) and modifying it (with an inter-country perspective where the pattern of the overall process of change varies as well).

The analysis highlights that under both patterns of process, radical change is determined by the shift to a higher level of satisfaction with the new archetype and high and dispersed technical capabilities. In cases of sedimented process, radical change will more likely result from a shift towards reformative commitment, while disruptive change allows both competitive and reformative patterns. Power has a more dispersed configuration in disruptive radical change than in sedimented one. Finally, leadership supporting radical change is transformational in both cases, but substantive in the former case and symbolic in the latter. Looking at the different outcomes of change within the same type of process, the same intra-organizational dynamics respectively emerge at the organizational level. In particular, what really distinguishes radical from incremental change is the presence of a certain degree of satisfaction with the new archetype and (i) transformational substantive leadership in case of disruptive processes, or (ii) transformational symbolic leadership in case of sedimented processes. The cases also highlight the existence of other important variables fostering radical change, independently of the pattern of process, i.e. internal communication, personal characteristics, actual participation and type of activity. These variables emerge as enablers in the achievement of radical change.

By adopting the alternative perspective of archetype theory, this paper contributes to existing accounting literature by providing a better understanding of the role of intra-organizational dynamics in affecting different results of accounting change efforts at the organizational level, even under similar external processes (Preston et al, 1992; Etherington and Richardson, 1994). Moreover, it goes further existing studies by considering together both intra-organizational variables and different patterns of change process and by comparing their influence on the final outcome of change. Finally, it suggests the need to incorporate in the archetype framework some personal and contingent variables, which represent enablers of change and contribute to explain its final results. Some specific relationships are thus highlighted and proposed.

The paper is organized as follows: Section 2 reviews existing literature on the outcome of change, the intra-organizational dynamics affecting it and the patterns of the process; Section 3 presents the methods. Section 4 presents a short story of the cases under analysis, which are further discussed in Section 5. Section 6 highlights some emerging intra-organizational variables, which also affect the final outcome of change. Finally, Section 7 presents some conclusions and further research avenues.

2. Theoretical framework

The issue and the importance of change have been long investigated in relation with accounting systems and practices. Some authors have adopted the lenses of contingency to mainly analyze the antecedents of change (Libby and Waterhouse, 1996; Baines and Langfield-Smith, 2003). Others have focused on social and relational factors, such as culture (Bhimani, 1996; Williams and Seaman, 2001) and, most of all, power (Oaks et al., 1998; Townley et al., 2003; Abernethy and Vagnoni, 2004), that shape change processes and results. Finally, institutional theorists have highlighted, although looking at single variables, how accounting change processes can be originated and shaped by internal and external stimuli (Cobb et al., 1995; Jacobs, 1995; Burns and Vaivio, 2001; Covaleski et al., 2003; Collier, 2001; Nor-Aziah and Scapens, 2007). Within this perspective, new-institutionalists focus on the role of environmental forces in shaping and constraining change (Powell and DiMaggio, 1991; Carruthers, 1995; Scott, 2001). An important body of accounting change literature has dealt with exogenously-driven change (as a result of regulative and normative pressures, see Covaleski et al. 2003, Tsamenyi et al., 2006, Ezzamel et al, 2007). Also in the public sector, given the outstanding relevance of regulation, change has been considered mainly as coming from external sources (Jones and Mellett, 2007, Erakovic and Wilson, 2005, Dent et al, 2004, Hammerschmid and Meyer, 2005, Kitchener and Whipp, 1995). On the opposite, old "institutional economics" has been more concerned with the importance of internal rules and routines in affecting the process of change (Burns, 2000; Burns and Scapens, 2000; Lukka, 2007, Nor-Aziah and Scapens, 2007).

Available studies and their approaches, however, don't fully account for both the different results in the change efforts at the organizational level under similar external pressures and processes, and, the similar results of such organizational efforts under different change processes and pressures. On the one hand, contingency theory, indeed, sees change in terms of mere adaptation and mainly as response to contextual requirements (Drazin and Van de Ven, 1985; Gresov and Drazin, 1997; Gooderham et al., 1999; Greenwood and Hinings, 2006). Such adaptation can be triggered by both exogenous and endogenous factors. Nevertheless, in all the cases, organizations are assumed to automatically pass from states of misalignment to states of alignment allowing a better performance. This doesn't consider how change can be problematic. Moreover, it doesn't take into account political and social factors which can come into play at the organizational level, differentiating individual responses (Hendry, 1979, 1980; Smith and Nichol, 1981). On the other hand, resource dependence and relational factors

focus on how organizations try to dominate their resource environment. Although it acknowledges the existence of an external regulatory structure, this theory focuses only on one organizational dynamic, i.e. power dependencies (Greenwood and Hinings, 2006). The main limit of both contingency and resource dependence theories in dealing with change is that they assume that organizations confronted by the same lack of alignment with the context will respond in the same way (Greenwood and Hinings, 2006).

Unlike contingency and resource dependence, new-institutionalists focus on the institutionalization and diffusion of change as a result of external social and technical influences (Scott, 2001; Powell and DiMaggio, 1991). As a consequence, they try to understand the ability of an organization to change by looking at how institutionalized norms and values affect its available choice-set and choice-processes. This approach assumes change processes finally converging towards a common equilibrium (defined by market, regulative, normative and cognitive pressures), while it's unable to explain why in reality single organizations show different results of change (Greenwood and Hinings, 2006).

Finally, Burns and Scapens (2000), and the old institutional school, explicitly focus on the unfolding of accounting change processes within organizations. In particular, they refer to the developing of the process of change in terms of institutionalization of accounting actions and practices into new taken-for-granted ideas. Accounting rules and routines set in place can change and stabilize into new ones, interacting with the institutional realm. Their model, however, doesn't address the possible outcomes of the process of change in terms of their characteristics (e.g. more or less radical) and differences across organizations. The process of institutionalization, indeed, will work similarly in different organizations which face accounting changes. Moreover, their model tends to confuse the outcome and the pace of change under the common umbrella of revolutionary and evolutionary change. Nevertheless, the final result of a process of change (i.e. its outcome) and the pace have been shown to be two different and independent concepts by other studies (Tushman and Romanelli, 1985; Pettigrew et al., 1992; Romanelli and Tushman, 1994; Hinings and Greenwood, 1988; Greenwood and Hinings, 1993, 1996; Malhotra and Hinings, 2005). Also this model, then, cannot fully explain the internal dynamics which differentiate change outcomes at the organizational level, under more or less similar external pressures.

In response to the shortcomings of the above highlighted theories, some new-institutionalists (Hinings and Greenwood, 1988, Greenwood and Hinings, 1996, Seo and Creed, 2002, Greenwood and Suddaby, 2006) point out that intra-organizational factors, such as

organizational values, can generate and foster possible inconsistency or crisis and thus affect the actual outcome of change. They propose an intra-organizational approach to the study of processes of change (Greenwood and Hinings, 1993; Han, 1994; Kossek et al., 1994; Beck and Walgenbach, 2005), which emphasizes organizations as coalitions of diverse professional interests, unlikely to respond uniformly to institutional processes although the choice set of options is institutionally and externally defined. Field level changes, such as changes in the market or regulatory environment, will be important in driving change. However, the micro-processes that occur within organizations are equally important in determining how the institutional environment is interpreted and how organizations respond. I propose that archetype theory and its intra-organizational model can help address the lack of understanding currently existing in accounting change literature. Archetype theory, in fact, considers changes in structures and systems within already institutionalized archetypes. It then allows focusing on how changes in structures and systems can lead to a change in ideas as well. It provides a comprehensive model of change since other factors, such as power, resources, and resistance to change, are also incorporated by taking into account people's interest, commitment and power in the process of change. Archetype theory, moreover, reveals particularly helpful since it allows distinguishing between different outcomes (i.e. radical vs. incremental) and paces (i.e. evolutionary vs. revolutionary) of change.

This section reviews: (i) the possible outcomes of the process of change, (ii) the intra-organizational factors affecting those outcomes, and (iii) the possible patterns of the process of change, along a continuum that goes from a punctuated and disruptive vision to a sedimented and layered one.

Archetypes and outcomes of change

An archetype is defined as a set of structures and systems that reflects a single interpretive scheme, made up of ideas, beliefs and values (Greenwood and Hinings, 1993, 1996). Organizational structures and systems, as well as accounting ones (Dent, 1991), can be seen as embodiments of ideas, beliefs and values which constitute an overarching and prevailing interpretive scheme. A design archetype is, thus, a set of ideas, belief and values that shape prevailing conceptions of what an organization should be doing (domain), how it should be doing it (principles of organizing) and it should be judged (evaluation criteria), combined with structures that implement and reinforce those ideas.

According to this approach, change can happen differently on the basis of the levels involved (i.e. systems and structures and/or interpretive schemes). The consistency of change with the existing archetype gives rise to a differentiation between incremental or radical change. The former takes place when organizations modify their structures and systems, but they keep their interpretive scheme consistent with the existing archetype. Radical change, instead, involves a shift in both structures and systems and interpretive schemes from an existing archetype to a new one (Greenwood and Hinings, 1996). This proves particularly helpful in defining the different outcomes of accounting change as well. After the formal adoption of new accounting tools and practices, indeed, the outcome of accounting change (i.e. the type of archetypal change overall achieved at the end of the period under analysis) can be assessed by looking at the shift in related ideas, beliefs and values (i.e. interpretive schemes). Contrary to the previously highlighted theories, archetype theory also distinguishes change on the basis of the pace of upheaval and adjustment. Change is evolutionary, when it occurs slowly and gradually, and revolutionary, when it happens swiftly and affects virtually all parts of the organization simultaneously (Greenwood and Hinings, 1996).

Archetypes and intra-organizational dynamics affecting change

Accounting change is not a simple matter of adjustment to external pressures (Shields and Young, 1989; Jermias, 2001; Ter Bogt and Van Helden, 2000), but it is also shaped by internal conditions and interactions. Contextual factors, such as changes in the market or regulatory environment, act as constraints and stimuli to which responses must be worked out by an organization's members (Oliver, 1991; Lounsbury, 2001; Dacin et al., 2002, Tay-Young et al., 2007). Organizations are not just passive actors, but can be seen as political domains in which multiple actors interact to pursue their goals and interests, willingly using power, distorting normal organizational processes, and even using organizations as personal weapons (Selznick, 1949, 1952, 1957; Cyert and March, 1963; Pfeffer, 1978, 1981, 1992; Perrow, 1986). As a consequence, to understand change it is necessary to examine also interpenetrations of organizational contexts and intra-organizational dynamics (Hinings and Greenwood, 1988, Greenwood and Hinings, 1996; Seo and Creed, 2002; Greenwood and Suddaby, 2006; Han, 1994; Kossek et al., 1994; Beck and Walgenbach, 2005).

In order to account for such dynamics, Greenwood and Hinings (1996) introduce the concepts of precipitators (interests and value commitment) and enablers (power dependency and

capabilities) of change (see Figure 1, Hinings and Greenwood, 1988; Brock et al., 1999). Accounting change can be seen as the final outcome of such dynamics.

Insert Figure 1 here

Patterns of the process of change

A process of change can be defined not only in terms of its final outcome, but also in terms of the pattern it follows. The same outcome of change, indeed, can be achieved through different types of processes (Malhotra and Hinings, 2005). Extant theory shows how processes of change can be placed along a continuum that goes from a punctuated and disruptive vision to a sedimented and layered one. At one extreme of the spectrum, punctuated equilibrium theory provides the first important theoretical explanation for how organizations change (Miller and Friesen, 1984). It suggests that organizations go through relatively long periods of evolutionary convergence that are interspersed with or punctuated by relatively short periods of dramatic revolutionary change (Tushman and Romanelli, 1985; Romanelli and Tushman, 1994). Over time, when organizations have to respond to changes in contextual circumstances and to evolving and competing institutional prescriptions, they react through punctuated responses (e.g., Fox-Wolfgramm et al., 1998; Nadler and Tushman, 1989; Romanelli and Tushman, 1994).

At the other extreme of the spectrum we can place sedimentation, which reflects a slow layered dialectical pattern of elements of new emerging structures, systems and beliefs sedimented with pre-existing ones (Malhotra and Hinings, 2005). This theory points out the persistence of values, ideas and practices, even when the formal structures and processes seem to change. According to Clegg (1981), although historical, some rules and values persist and endure. As a consequence, in order to study change we have to look at the interrelationships between superimposed layers. McNulty and Ferlie (2004) studied the implementation of business process reengineering in the UK National Health Service. Drawing on a longitudinal comparative case study, they suggest that a sedimented rather than transformational change may be dominant due to the contradictions between the NPM arrangements and the competing process-related ideals. Existing actors did not simply resist change; they were heavily involved in the shaping of new roles. This suggests that rapid pace is not a prerequisite for radical transformational change to occur. On this issue, Malhotra and Hinings (2005) propose three important points: (i) sedimentation is a viable alternative explanation to

punctuation theory for how transformational change occurs in organizations; (ii) qualitative differences in the layering of sediments are an important indicator of the extent of change and of the likelihood that an organization will achieve transformational change. In particular, organizations manifesting greater variation among old and new layers and sediments are more likely to achieve transformational change. When variation among layers is very high and caused by strong competing voices, the extent of change seems to be higher; (iii) transformational change may not be a total replacement of one archetype by a completely new one.

This paper investigates what the intra-organizational variables that drive a radical accounting change are in presence of apparently different patterns (disruptive vs. sedimented) of the process.

3. Methods

This paper explores how intra-organizational dynamics (i.e. values, interests, power and capabilities) combine with different patterns of processes (disruptive vs. sedimented) to affect the outcome of accounting change. In order to do so, longitudinal case studies of three Departments have been carried out in two Italian and two Canadian Municipalities, with a total of twelve cases (Pettigrew, 1990; Huber and Van de Ven, 1995; Patton, 2002; Leonard-Barton, 1990; McNulty and Ferlie, 2004). The longitudinal case method: (i) allows to examine changes in their context and take into account the sequential interconnectedness of events (Pettigrew, 1990); (ii) is respectful of the complexity of social interactions and organizational actors' values and interpretations; and (iii) is emergent and evolving, open to new results (Marshall and Rossman, 1999).

Also Brignall and Modell (2000) suggest that empirical research in accounting change should take the form of longitudinal case studies to track differing paths of development and their effects through time. In this paper, accounting change has been examined taking into consideration the period from 1995 to 2008. To the analysis aims, time has been divided into homogeneous periods of four years (with the exception of the last two years). Not less than three years, indeed, are usually required to gain indications on how change proceeds and different factors interact (Greenwood and Hinings, 1996; Huber and Van de Ven, 1995). As temporal brackets are necessarily subjective, in cases of radical change I assumed the change to happen at the very end of the interested period. Radical change, in fact, represents a break-

point between the adoption of different archetypes. As a consequence, the intra-organizational dynamics fostering it can be read at the beginning of the following time period, determining the discontinuity not only in accounting systems and structures, but also in interpretive schemes. They identify, indeed, the patterns resulting from the dynamics laying the basis for a stable radical change.

The Italian and the Canadian settings seem particularly suitable for the study of accounting change for different reasons: (i) starting from the Nineties both Canadian and Italian Municipalities underwent profound changes as a consequence of the NPM movement aiming at introducing more business-like organizational arrangements (as a reaction to the traditional bureaucratic ones). One of the major reforms has involved accounting systems; (ii) although showing a common trend of reform, Canada and Italy represent two different countries where new accounting systems and structures have being implemented differently in terms of patterns of process overall followed (see the next subsections). As a consequence, these cases allow investigating intra-organizational dynamics under a double perspective by: (a) keeping the pattern of change constant and focusing on different outcomes of accounting change efforts at the organizational level, and (b) adopting an inter-country perspective to understand which dynamics better foster change in presence of different patterns of the process.

Organizational structures and systems, as well as accounting ones (Dent, 1991), can be seen as embodiments of ideas, beliefs and values which constitute an overarching and prevailing interpretive scheme. The unit of analysis taken into consideration here is accounting change within Municipalities' Departments. In all Municipalities, which will be called G Town, T Town (Italian cases) and E Town and C Town (Canadian cases), the initial gatekeeper was the Chief Financial Officer. In order to increase the research validity a multisampling strategy was adopted. In particular, sampling was carried out in two main steps through (Patton, 2002): (i) maximum variation sampling: Departments were selected in a way to achieve a full range of variation in the dependent variable (i.e. the resulting outcome of accounting change). Moreover, in each Municipality three specific Departments were identified (Social Services, Environment and Public Infrastructures) in order to diversify their performed activities. The level of measurability of their output was thus considered as a proxy of their different activities (Brown and Potoski, 2003). Public Infrastructures show the highest output measurability, followed by Environment and Social Services; (ii) stratified purposeful sampling: the sample was selected taking care of controlling for organizational size (i.e. only big Municipalities with a population between 600,000 and 1 million have been selected).

Case studies were carried out through specific interviews aiming to investigate interviewees' perceptions relevant to the questions under study. Interviewees were identified by snowball sampling. The use of snowball sampling allows further improving the internal validity of the study by comparing the information provided by the previous "suggesting" informants with the answers provided by the "suggested" ones. Two to three senior managers form each Department were interviewed. Managers from the Finance Office were interviewed as well to track back the story of change in the organization and to control for other interviewees' answers. A combined approach was adopted (Patton, 2002): semi-standardized open-ended questions (Flick, 2002) were ad hoc prepared, initially drawing on the extant theory. This assured to cover the main topics and issues related to the theme, leaving however the flexibility to adapt the wording to the specific interviewee. Elements typical of the episodic interview were also integrated, in order to deepen personal perceptions and experiences and eventually add more categories to the framework. Episodic interview facilitated the presentation of experiences in a general comparative form and at the same time ensured that situations and episodes were told in their specificity. The combination of the two techniques allowed the interviewer to both drive the conversation and increase the comparability of responses. Informants were asked to provide their own perceptions as well as general perceptions and others' reactions to accounting changes made at different points in time.

All interviews were tape-recorded and transcribed. They reconstructed: (i) how new accounting tools affected organizational behaviours over time and whether they were actually used; (ii) how the process of change developed; (iii) accounting tool characteristics; (iv) organizational factors that affected the process of change and its outcome. Interview-coding followed a theoretical approach to better identify both differences in perceptions along a continuum and possible emerging factors. Field notes were also taken in order to account for both interviewers' perceptions and interviewee's reactions. Finally, the analysis required original documents (such as budgets, environmental reports, meeting notes, etc.) to be gathered in order to collect background data and help reconstruct the process of change. Documents played a fundamental role also in order to double check interviewees' answers. Particular attention has been reserved to ethical considerations. Before each interview, the research main purposes were explained and data ownership issues clarified. In order to avoid biased answers and not to put participants at risk, complete anonymity was guaranteed and possibility of withdrawal was given.

Variables identification

The dependent variable is represented by the outcome of accounting change (i.e. radical vs. incremental change). According to archetype theory, in order to reach radical change, both structures and systems and interpretive schemes have to change consistently (Greenwood and Hinings, 1996; Hinings and Greenwood, 1988). Previous literature, although not considering specifically accounting, has studied change looking at the shift between archetypes with different characteristics (Hinings and Greenwood, 1988; Kitchener, 1999; McNulty and Ferlie, 2004; Hammerschmid and Meyer, 2005; Greenwood and Hinings, 2006). In this paper, I look at processes of accounting change concerned with the shift from the bureaucratic to the managerial archetype. The process of reform that started all over the world in the Nineties at both the central and the local government levels, indeed, was directly inspired to the NPM (Hood, 1995; Pollit and Bouckeart, 2000). Within the NPM, one of the main reforms has involved governments' internal and external accounting systems (Olson et al., 1998; Steccolini, 2004). As a reaction to the traditional bureaucratic systems, accounting reforms specifically concerned the introduction of: (i) accrual accounting systems, (ii) performance measuring and benchmarking tools, (iii) market oriented management systems (cash management, contracting-out, etc.), (iv) decentralization, (v) internal and external auditing systems.

I identified the two archetypes features relying on existing public management studies (Olson et al., 1998; Steccolini, 2004, Pollit and Bouckeart, 2000, see Table 1). To assess the type of change, then, questions were asked to investigate the actual use of the new accounting systems, structures and tools. Moreover, decision making criteria to take accounting decisions were investigated in order to understand whether decision making processes shifted from bureaucratic to managerial principles. Finally, questions about the level of interviewees' agreement with new managerial ideas have been asked (Hinings and Greenwood, 1988). Archetypal changes in the cases under analysis are categorized and summarised in Table 2.

Insert Table 1 and Table 2 here

The independent variables generally emerged directly from the interviewees' answers. Initially drawing on archetype theory, however, some questions were posed to ensure the investigation of the main factors. Interest satisfaction was assessed through interviewees' opinions and agreement on previous vs. existing accounting systems and the effect they had on resources, people and relative status (Hinings and Greenwood, 1988).

Value commitment was assessed through interviews' direct and indirect judgment on new managerial values (Hinings and Greenwood, 1988), i.e. their agreement on organizational values imposed by previous external pressures or tradition (i.e. related to the previous bureaucratic archetype) with the agreement on values proposed by new external pressures (i.e. related to the new managerial archetype). Four generic patterns of value commitment can be identified (Greenwood and Hinings 1988, 1996): (i) status quo commitment, when there is a widespread commitment to the existing set of values; (ii) indifferent commitment, when groups are neither committed nor opposed to prevailing and alternative ideas; (iii) competitive commitment, when some groups support the interpretive scheme in use, while others prefer an articulated alternative; (iv) reformative commitment when widespread commitment to an alternative organizational orientation is visible.

Power was investigated by both looking at different actors' hierarchical position within the organization and asking them about their relative influence on decision making, resource allocation, agenda control and new meanings diffusion (Pfeffer and Salancick, 1978, Luke, 1974, Foucault, 1979, Hardy, 1996). Power is said to be concentrated when access to resources, key decision processes and information is restricted to a few groups or elite. It is dispersed when access to decision processes, information means and resources is open and distributed amongst different groups (Greenwood and Hinings, 1988).

Capacity for action was assessed by looking at both technical and managerial capabilities (i.e. leadership). I asked questions about both the level and type of technical knowledge and expertise existing before and after the introduction of the accounting changes and the attendance of possible training courses (Hinings and Greenwood, 1988, Tushman and Anderson, 1986). I categorized leadership by looking at how managers implemented change (i.e. symbolically relying on their responsibility or substantively contributing in defining values - Pfeffer 1992; Romanelli and Tushman 1983; Schein 1986; Hinings and Greenwood, 1988; Nadler and Tushman, 1989) and through which means (transactional, i.e. hierarchical position and resource exchange or transformational, i.e. commitment, communication, and motivation - Burns, 1978, Tichy and Ulrich, 1984; Kanter 1984). Specific examples of interviewees' quotes defining intra-organizational variables are reported in Tables 1-12 in the Appendix.

Patterns of the process of change in Municipalities: the Italian and the Canadian cases

Over the last decade, in both Italy and Canada, NPM values and practices were introduced as a reaction to the previous bureaucratic systems. However, while in Italy the process was strongly law-driven and took place disruptively as precise sequences of exogenous jolts from 1995 on; in Canada the process of reform was slower and more sedimented, introducing new accounting systems and values one after the other. Such differences were confirmed also by the interviewees' words (see below).

The Italian Municipality field has been traditionally inspired by a bureaucratic archetype, embedded in laws, norms and rules (Behn, 1998; Borgonovi, 2005). Control systems were mainly hierarchical and focused on procedures. A great importance was given to accountability on financial resources and inputs (Borgonovi, 2005). Accordingly, Municipality accounting was dominated by a form of "budgetary accounting", whose main purpose was to limit spending. The adopted bases of accounting were commitment and cash. Budgeting was viewed as the only relevant phase of the accounting cycle, while year-end financial reports were virtually neglected. Bookkeeping was centralized and based on the single-entry system, which emphasized budgetary compliance.

Since 1990, NPM ideas started seeping in the Italian public sector, encouraging the adoption of a new managerial model. Such model was embodied in two main legislative initiatives inspired by managerial and market principles, decentralization and a new focus on procedures and processes and their level of efficiency and effectiveness (Mussari, 1997; Pollit and Bouckaert, 2000).

1995 was the year Municipality accounting was significantly reformed. The reform main provisions concerned the introduction of (i) the accrual-based reporting (recovered from the commitment-based accounting at the end of the year according to a predefined format), and (ii) the Executive Management Plan (EMP, establishing managers' objectives, performance measures and resources) to supplement the annual legislative budget, still structured on commitment basis. The traditional budgetary system supplemented by these new tools still nowadays consists of programming (Strategic Plan, the Legislative Budget, the Executive Management Plan) and reporting (Financial Reports) tools. The huge shift required in ideas and practice was recognized also by the interviewees:

> "*There was a real push in the way of thinking, working, interacting. Such new ideas where transfused into the new tools, such as the EMP*" (Manager G in G Town's Environment)

In 1999 there was the second jolt. Municipalities were required by law to introduce and maintain the clear separation between: (i) controls on compliance, (ii) strategic planning and control, (iii) management control, and (iv) performance evaluation. For all Municipalities such systems were strictly defined also in terms of their contents and functions.

Finally, in 2001 the national Constitution Act introduced a stronger federal structure devolving more power to Regions and Municipalities. In particular, Regions could now actually pass laws concerning Municipalities' accounting standards and systems, although this power has not been yet used.

The Italian process of change is overall characterized by the issuing of ad-hoc laws, concentrated in time and requiring the change of a number of accounting systems and structures together. The first huge change involved the introduction of accruals-based reporting and managerial ideas (1995). After that, all control systems were reformed (1999). Also the interviewees recognized that the overall process of accounting change in the Italian Municipality field was characterized by clear moments of deep innovation identified by the issuing of new laws. Overall, then, a disruptive change was required:

> "*It's been an epoch-making change for management. We weren't used to it, we didn't reason in term of objectives. Everything was new and we had to understand how to work with that*" (B Manager in the G Town's Finance office)

A change defined as "radical" was also envisaged:

> "*Change was necessary. It's part of that cultural change we absolutely need!*"
> (Manager B, T Town's Environment)

As far as Canada is concerned, given the differences that can exist between Municipalities located under different province jurisdictions, the study focuses here on two that are placed in the same Province, recognized as one of the most radical reformers (Harrison, 2005).

Historically, in Canada the Municipality role has been quite denied: they were not even recognized in the constitutional British North America Act, which in 1867 created the autonomous country (Tindal and Tindal, 2000). Governments funded and were funded on input bases. Municipalities suffered of the traditional "silo" problem due to fragmented

structure and uncoordinated Departments (Tindal and Tindal, 2000) and there was a widespread feeling against red tape and bureaucracy. In this setting, NPM reforms took place slowly and mainly as a result of financial stresses. Reforms were initially concerned with cutting government expenditures, although not through an unreflective general cut, but through a rational process involving business planning and performance measurement, where accountability, transparency and entrepreneurial initiative were required. This process was made smoother by the pre-existence of accruals-based accounting. Municipalities, indeed, had already been using accruals-based accounting and reporting since the Eighties. In particular, they issued financial statements based on modified accrual accounting principles, where accrual accounting was applied to current operations, while capital fund activities were reported as revenues and expenditures in the period of interest, not based on the financing and acquisition of tangible capital assets. Accountability reports included budgets, annual reports and financial statements.

In 1990s federal initiatives directed towards shifting a greater portion of the financial burden of service delivery to Provinces and Municipalities. This led the latter to reorganize their own financial structures and measurement systems. Particular interest was placed on NPM techniques promoting the management of government as business and enforcing a customer-oriented provision of public services to pursue efficiency and accountability. Municipalities were encouraged to pursue different delivery strategies through contracting-out and privatizations, seen as free from the restrictions of the traditional bureaucratic archetype.

In 1995 the Province under study was the first to recognize Municipalities with broader authority to operate thanks to the Municipal Government Act. Under previous legislation, Municipalities had only those powers specifically set forth by statute. The new legislation introduced the concept of Municipalities as business-like corporations rather than a lower form of government. Moreover, it gave the city manager the power to re-organize the administration by eliminating structural duplications. As a consequence, clearer responsibilities were set across Departments and they were given a budget appropriation (although usually reflecting historical expenditures) with the task to deliver services within it. The main accounting change required by the Act was the introduction of a three-year business plan outlining Municipalities' objectives and goals, accompanied by a series of performance indicators and measures to allow an evaluation of their success. The three-year business plan had to identify objectives like private business to reduce costs and improve outcome accountability with mission statement, goals, objectives and strategies. In addition to core

government measures, management measures, and societal indicators, also activity-based, efficiency and outcome measures were suggested if not already in place (Harrison, 2005). While the business plan had to be immediately introduced, Municipalities were left autonomous in designing and implementing their own performance systems.

In 2004 Municipalities were required to slowly move form a modified accrual accounting system to a full accrual one by the beginning of 2009. Accordingly to the PSAB (Public Sector Accounting Board of the Canadian Institute of Chartered Accountants) standards, they are currently proceeding to the valuation of asset inventory and the calculation and charging of amortization and depreciation expenses in order to set their new accounting policies consistently.

The Canadian process identifies multiple and constant attempts, started even before the Nineties, to move towards the new managerial archetype. New accounting systems (private-like practices, business plans, performance measures, etc.) were introduced in sequence over time like further developments of each other. Compared to the Italian reform, it proceeded more slowly and touching fewer accounting systems per time. This led to the sedimentation of new accounting systems and structures like in a "continuous cycle" of change, fostering the coexistence of old and new ideas over a relatively short period of time. Such "sedimentation" of changes and ideas has been addressed also by the interviewees, who underlined the never-ending process of change and revisions in accounting systems and tools:

> "*Change never goes back. So we try to run the business, and there are new regulations, rules, templates, whatever it is, there are some conflicts there. New processes you don't know, it's frustrating.*" (Manager W, Infrastructure Department in C Town)

> "*What I heard from the people: they are tired. They have been changing and changing. This never ends! People are going through perpetual changes and they are getting tired ... This is craziness!*" (Manager S, Infrastructure Department in C Town)

Also,

> "*We continuously revisit and clarify priorities, since priorities change. They introduced branch areas... so we are constantly changing. And we continue to work to create those change environment and culture; we hire people who like change.*" (Manager MG, E Town's Social Service Department)

> *"We're very kind of dynamic organization. We'll go through and modify to adapt to the market, making sure that we still meet the minimum standards or guidelines."* (Manager K, Infrastructure Department in E Town)

4. Outcomes of accounting change and intra-organizational dynamics: the story of the twelve cases

E Town

Today E Town has about 730,400 inhabitants. It has an agricultural tradition and has been experiencing a big growth since the last decade due to the industrial development of the area. The City historically both cooperates and competes with C Town to become a best practice. Pressures in this respect are felt by all people within the organization. Most of the changes were introduced after the Municipal Government Act, which, however, left organizations broad autonomy to arrange as they wanted.

The process of change started with the introduction of the corporate business plan. Ideas of increasing efficiency and effectiveness led the whole process of change until 2007, when the accounting system was finally decentralized to single Departments:

> *"One of the reasons we moved it to the line areas was that if they see that they charge to themselves, then it is their ability to control and do something about it"* (Finance Manager C)

In 2007 the organization stopped updating the corporate business plan because of a change in the Finance Office staff:

> *"Corporately it wasn't done in 2007 and it wasn't done in 2008...Some Departments went on doing it anyway. I think it depends on the nature of your business"* (Finance Manager C)

Different IT systems where introduced mainly corporately, such as SAP in 1996 and Pacman (a project management module of SAP). The only "bottom-up" change under this respect was represented by Class in 1995, a software that was meant to get more in-depth information on citizens' registration, rate per program, etc.

Social Services

Differently from the other Departments, Social Services were already issuing their business plan before the corporation as a whole introduced it in 1995. Moreover, some performance

measures (PMs) were already in place at the time. Taking the law requirements and the other corporate changes as an opportunity, in 1995 they asked IT people support for their activities and through a participated process they finally seemed to win some of the resistance (such as the silo culture) present in the Department. During all the period under analysis, they went on developing managerial ideas and tools in order to improve information quality. In 2002 a new manager was also hired and gave a new momentum to change so that at the end of the second period a radical change can be envisaged at the Department level. The usefulness of the new tools was recognized, they were understood and used. Although some of the managers recalled a still alive "silo mentality", they slowly moved towards the new managerial archetype at the end of the second period under analysis (see Table 2).

At the beginning of the process, managers recalled widespread interest dissatisfaction with the incoming managerial ideas due to cultural resistance and fear of increased personal control:

> "*There was dissatisfaction at the beginning because of the lack of support and the increased work to do*" (Manager W, E Town's Social Services)

Things started to change when the first results after the new PMs introduction could be seen (Figure 2), although in the last period some complaints were still present due to the way new managerial ideas were being implemented. Similarly, value commitment moved form a competitive pattern (where top managers were pushing for change form the top and had a vision of the final outcome of change they were looking for, while others were quite indifferent to change) to a fully reformative one. As a consequence, even in 2007, when the Municipality stopped issuing its corporate business plan, the Department decided to continue on its own, thanks also to a more and more shared understanding of the new tools, which led to a more dispersed power. Technical capabilities appeared to be dispersed at the moment of radical change, although concentration in the top management increased over time. Finally, a transformational and symbolic leadership prevails during the period under study. Both the General Manager (GM) and the top managers tended to involve and commit people in decision making and new systems design, but this was possible thanks to their formal position. Thanks to hierarchy, indeed, people had to "agree" on doing things. Interestingly, at the beginning of the radical change (1995-1999) two kinds of leaders emerged: the transformational and substantive type of the IT people and the transformational symbolic GM, who was defined as having a personal vision of the change and thus being able to commit others.

Insert Figure 2 here

Environment

In the Environment Department changes started as a consequence of an environmental scandal in 2001. As a consequence, they introduced the ISO 14000 environmental standards meant to minimize organizations' negative effects on the environment and related to specific environmental management systems. Such standards specified requirements for planning correct environmental policies, objectives and targets, controlling impacts of organizational activities and services, and correcting actions thought a final phase of management review. Managers remembered how the other management systems were much looser and less prescriptive before the adoption of the ISO standards. The Department is currently still implementing the ISO system and trying to achieve the expectations of the environmental strategic plan (Figure 6). Integration between existing accounting and management systems and ISO ones could not be seen (an exception is the drainage service, which started the change some years earlier and had already in place a management system able to support the ISO requirements even before the certification). The other corporate accounting changes (such as business plan, finance function decentralization, etc.) don't seem to play a major role and managers themselves didn't refer to them often during the interviews. The Department focused on the introduction of the new ISO model, which actually reproduced old bureaucratic logics of auditing and formal compliance. Management systems were not integrated with the PMs and the business plan. The final outcome can thus only be seen as incremental, almost no change (Table 2).

The Department showed dissatisfaction with the incoming ideas and changes during all the period. Only top managers actually proposing and advertising them were positive. Hierarchical power and leadership were perceived as strong in the Department. However, they tended to coincide and limit any form of resistance. As a consequence, leadership remained mainly symbolic and transactional adopting a "stick and carrot" approach. They reached only at the end of the 12 years under analysis a more stable commitment to change and a more transformational and participative management of the structure (Figure 6).

Insert Figure 6 here

Public Infrastructures

The Public Infrastructures Department is responsible for road and building construction. 1995 represented the year of introduction of new strategic documents and project management

practices in response to the lack of consistent procedures across the different departmental branches. They also started outsourcing most of the construction activities to external private constructors, keeping internally only coordination functions and activities related to capital assets maintenance. The introduction of project management practices spread slowly throughout all the areas: from roads constructions at the beginning of 1995 to capital assets building in 2007 (Figure 10).

In this Department change was just a formalization of existing professional practices and tools outlining another case of almost no change. The whole process was led by engineering principles. Being mostly dissatisfied with the managerial accounting changes, engineers had the power to completely stop their adoption because they were seen as useless to their technical activities. Consistently, capabilities on technical matters were high and dispersed throughout all the periods, while people never really invested in understanding the new accounting structures. Changes were introduced drawing mainly on transactional and symbolic leadership, where the top manager embodied the power and had the resources to make change possible. From the second period, however, the same leaders sought more and more people's participation and involvement, trying to share the values on the usefulness of the new tools introduced (see the "open door" policy in the last period). This shift in leadership seems to be accompanied also by a change in value commitment: from a clear status quo reaction slowly to a more reformative one.

Insert Figure 10 here

C Town

C Town has about 1 million inhabitants. It is situated in an industrial area and, like E Town, underwent a huge process of growth during the last years. Famous as a forerunner in managerial experiments and practices, it takes part in several best practice networks. In the Municipality first attempts of changes in budget processes and PMs started in early 1990s, so that business plan experiments were already present at the Departments' level. Like in E Town, the corporate business plan was introduced in 1995.

At the beginning of the period under analysis they showed already a corporately decentralized accounting system. It was centralized again in 2003 to increase the overall organizational efficiency. Control systems already in place were modernized under the new Mayor's directions. For efficiency reasons a 3-year budget was introduced in 2006. PMs were linked to this new budget:

"In 2006 we didn't have the data. For example, how many transactions per employee do you process in a year? We didn't have precise numbers. We started collecting those data, today we do have those data and we can measure it" (Finance Manager S)

Moreover,

"It's difficult for us to reason in that way because we never reasoned that way"
(Finance Manager L)

In 2006 the "deputy owner" rule was introduced: managers became responsible and accountable for their own budget. They gained managerial autonomy to roll down their objectives through their organizational structure responsible for money and results. This led to an increased transparency.

Social Services

Like E Town, before 1995 C Town's Social Services already had some general PMs for the strategic planning. In 2006 thanks to the change in the budgeting system, PMs were monitored quarterly and improved in terms of quality and detail, considering, for example, number of participants vs. possible facilities uses, number of participants in registered programs per class of citizens, citizens' satisfaction, etc. The main change often recalled as important by the interviewees is the 3-year budget, while the other managerial tools (such as the PMs), although pre-existing, don't seem to be understood or linked among them. They tried to customize some of the new tools, nevertheless they didn't introduce any further departmental system in addition to the corporate ones. Change and related ideas were perceived as top-down constraints. People seemed to be aware of the tools, but not of their meaning. They were not considered useful and thus they were not used. They actually managed daily activities through old templates, identifying a case of incremental change (Table 2).

Over the 12 years under analysis, people didn't feel satisfied or committed to embrace the new archetype before the first results started coming out in 2003. In particular, the reformative attitude shown since the beginning by the accounting people about the corporate financial systems didn't find a match in the operational people who couldn't immediately see the impact of those changes on their work. Even after that, however, some of them went on complaining with the actual use that was done of the new tools. Power remained pretty concentrated at the top levels for all the time, mirroring a transactional and symbolic leadership mostly hierarchical and related to the knowledge of the accounting tools only in

some cases. Decisions were taken without involving lower levels. Similarly, also the technical capabilities, which were present and quite dispersed at the beginning of the period, became more and more concentrated in those actually deciding (Figure 3).

Insert Figure 3 here

Environment

The Environment Department of C Town took the opportunity of the corporate business plan and the related PMs to develop its own measurement system, which was actually improved and structured in 2003-2006, when the radical change took place (Table 2). In the same period, they introduced new long term planning tools to comply with the increasing sector regulation. The Department was also an early adopter of the ISO systems. During the interviews, however, managers underlined how that could be seen only as a form of bureaucratic and formal control on compliance, not a proper managerial tool for decision making:

> *"The ISO standards didn't affect our ways of reporting, maybe some processes... ISO and management systems are two separate things..."* (C Town's Environment Manager P)

People remained dissatisfied with the new ideas until 2003, when the new tools introduced locally made people also more committed to the managerial values (see Figure 7). The main reasons of dissatisfaction were related to cultural resistance to change, disagreement on measurements, and perception of an increasing workload. The whole process was characterized by a concentrated power which resided in top managers' hands. Their legitimization resided in both hierarchical positions (granting them control over decision making and resources) and higher knowledge of the new tools and systems. Forms of resistance were present in 2003, when the actual change happens, but those who resisted had no choice but leave. Differently from the power dependencies, technical capabilities remained dispersed (although a different focus of accounting and operational people, naturally related to their different activities), while managerial ones although being strongly symbolic (the leader coincided with the hierarchical boss, who had the power and the recognition to push change forward) moved from transactional (with few attempts to involve people) to transformational (where periodic meetings and comments gathering were arranged).

Insert Figure 7 here

Public Infrastructures

The Public Infrastructure Department introduced the first "technical" PMs almost 30 years ago, relating activities to a quality index tracking service conditions of the City constructions (e.g. puddle per km, new residential units per population, number of building permits issued per population, construction value of total building permits issued per capita, etc.). In 1998 also PMs were revised in order to adopt a more customer-based perspective. Almost simultaneously, they decided to link personal performance objectives and indicators to annual performance at the end of the year. They also introduced a reward and recognition program operated separately from the annual performance objectives process, which allowed employees to "thank" other employees with a cash reward when the most significant projects get recognized. In 2005 with the approval of the first multiyear capital budget, the Department was the first to really start moving from a historical cash-based budget to a zero-based budgeting for capital assets (Figure 11).

In this Department, however, managers were still stuck to old bureaucratic tools and systems (i.e. the traditional budget) and saw the new ones only as formal templates to be filled in. Managerial ideas were not understood and rather competed with professional ones, which were not strong enough to stop the spreading of new accounting systems in the Department, thus determining an incremental change (Table 2). Changes were top-down driven and not understood so that dissatisfaction remained high during all the period and commitment showed mainly status quo or indifferent features. Power was concentrated at high levels, often represented by people outside the Department, such as the CFO and the City manager. Departmental managers often raised professional issues related to their engineering activity, but they didn't have the strength to stop or re-direct corporate changes (Figure 11). They just slowed down the process. Consistently with this picture, leadership was mainly symbolic and transactional, where lower levels were poorly involved and change was based on resource exchange. Like in E Town, in this Department capabilities were high and dispersed for engineering matters, low and dispersed for managerial ones.

Insert Figure 11 here

G Town

G Town is a windy city in the North of Italy. It has 620,000 inhabitants and is situated in a historically industrial area, near the sea. The Municipality took part in several national competitions on managerial and accounting best practices over the period under study. As

legally required, since 1995 all Departments introduced the EMP and the related personnel evaluation and management control systems. The Municipality then autonomously decided to go further with the accounting reform and to introduce an integrated accounting system, where accruals-based information is recovered and tracked during the whole year (not only at the end as prescribed by law).

Social Services

In 2000 the Social Services Department, one of the most proactive, started decentralizing service monitoring and bookkeeping to local territorial offices. 2003-2006 was the period of deepest change: social service and technical reports to monitor demand and needs, indicators and software were developed:

> *"These are a mirror of our activities. Reports allow us to read the needs. Of course, they have to be related to other accounting tools as well. This way we move away from the mere quantitative analysis towards the assessment of citizens' real problems. In social services it's not easy to structure objective accounting systems..."* (Manager M, G Town's Social Services)

This was the period when the Social Services experienced radical change (Table 2) and previous attempts of performance measurement were eventually finalized. The Department developed its own indicators and reports in order to answer the growing need for service monitoring:

> *"We spontaneously developed our technical tools: the social services reports are useful to understand how we manage expenditures, the type of needs and demand we have, customers' age, etc. We can read the needs and make connections with the other management tools"* (Manager A, G Town's Social Services)

The radical change was characterized by low organizational conflict, with a high degree of understanding of the new systems (their technical capabilities were dispersed and increased over time) and involvement in change decisions (showing, as a result, the development of different tools for different users). Such radical outcome of change was helped since the beginning by a general satisfaction and commitment with the new archetype and its ideas. It was seen as a way to improve service provision. Only at the end of the overall period under analysis some competitive pushes emerged from the competition between (supported) departmental tools and (inadequate) corporate ones. As participation increased, power went from a concentrated pattern (where mainly politicians and central corporate offices had the

power to decide) to a more dispersed one, where operational people detained the power over knowledge and information and were able to design and customise the new accounting systems. Those who owned some knowledge about the new systems and structures, such as the new Information System manager, were able to gain power in a short time and to legitimize themselves, especially in the last periods. Consistently, leadership appeared to be transformational and symbolic in the first two periods, while it became transformational and substantive in the last two (Figure 4).

Insert Figure 4 here

Environment

The first real change in the Environment Department of G Town happened in 2000, when the new ISO 9001 system was introduced (Figure 8). The new quality system was slowly set up in a way to achieve more and more awareness of the performed activities. Over time it helped focus on results and move from input to output evaluation, determining the final slow achievement of radical change in the last two periods under analysis (Table 2).

In this Department the process of change was characterized by a strong leadership: until 2003, indeed, the Department director was the same that became the corporate internal auditor afterwards. Personal vision and commitment, then, were fundamental to push change and commit others also relying on her hierarchical position. The new quality system was immediately and naturally linked to the management control system. The director who followed adopted a similar approach, although she decided to take a less detached position within the Department, showing more "substantive" attitudes. Apart from the ISO system, all the other changes were mainly corporately driven, although the Department went on adjusting its own systems and indicators:

> *"The last year* (2007) *also the external auditors pointed out that our measures are still too focused on time. We are shifting towards real performance measures*" (Manager M, G Town's Environment Department)

The dynamics related to power were quite different: while in the first two periods power was concentrated at the central level (and the Department tended to slow down the process by resisting change), indeed, after the ISO system introduction it became more dispersed. Also resistance decreased thanks to a greater people's understanding of the change and their positive evaluation of its effect on daily activities. Consistently, satisfaction with the new managerial ideas increased and commitment shifted from status quo to reformative (Figure 8).

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Public Infrastructures

After the introduction of the new corporate accounting tools, also the Public Infrastructures Department tried to better customize them by linking in 2001/2002 their main planning tool, the triennial plan, to the EMP. Such practice, however, was abandoned the following year because of the difficulties in balancing political programmes (in the triennial plan) with managerial objectives (in the EMP). Change was characterized by a conflict between professional issues (engineers just ignored new managerial tools because they saw them as useless) and new managerial ideas. As a result, they were only able to reach an incremental change (Table 2).

Consistently with their low understanding of the new systems and the related low and dispersed capabilities, people within the Department remained dissatisfied and indifferent to the new archetype (Figure 12):

> "*I'm not good at all with this new accounting stuff*" (Manager R, G Town's Public Infrastructures)

What also hampered the change was the distribution of power: it was perceived, in fact, as concentrated totally outside the Department. CFO, City manager and politicians detained in turn power over resources and decision making, thus spoiling Department's expectations and needs. They exercised such power through a transactional and symbolic leadership, characterized by weak attempts of involving others. As a consequence, the Department relied on its strong professional and technical values to slow down the process of change.

T Town

T Town is an old industrial city in the North of Italy with a population of about 900,000 citizens. The Municipality is well known for its early managerial experimentations. Like G Town, T Town introduced the new accounting systems required by law, but without pushing them further. In this Municipality most of the accounting changes introduced over the considered period were corporate-driven. Only few attempts were done, mostly by the Social Services and the Public Infrastructures Departments, to customize accounting tools and systems to their activities and information needs.

Social Services

In T Towns' Social Services the introduction of new accounting and managerial tools was mainly interpreted as law-driven:

> *"We still have a bureaucratic compliance culture!"* (Manager E, T Town's Social Services)

They started the actual process of change by introducing some Department-specific systems and tools, such as the unstructured financial reporting (Figure 5). Their focus always remained on financial resources. Only the service quality monitoring system moved their attention towards a more output based perspective, even creating links with the EMP. All the managers interviewed pointed out the still existing difficulties to break with the old bureaucratic values, thus identifying an incremental outcome of change in the period under analysis (Table 2).

Initial dissatisfaction with the new managerial systems was partially defeated by the positive effects on day-by-day activities. Top managers initially pushing for change were thus able to commit people to change, making power over decision making and new meanings more dispersed (while resources remained concentrated at the central Departments level, see the "file data" experience). It is interesting to notice that in the first period power was mainly exerted by lower operational levels within the Department, which clearly slowed down and stopped the unwanted changes (such as incentives). After a strong internal resistance, departmental tools were introduced in 1999 thanks to the leadership of top managers who tried to involve people through meetings and courses. Their hierarchical position was recognized to play an important role to steer and direct people towards the desired direction. After a period of stop where only corporate changes were introduced (2003-06), changes found new momentum in 2007 with the "file data", the local bookkeeping control and the regulatory social plan, respectively pushed by the corporate internal auditor, the departmental controller and the alderman. In these cases, change was again top-down and poorly participated. Technical capabilities were low and dispersed all the time. Only the departmental controllers were able to manage the new systems and propose accounting customizations.

Insert Figure 5 here

Environment

The Environment Department showed to be quite impermeable to accounting changes (Table 2). They acknowledged the existence of a managerial reform still going on, but couldn't really point out improvements in their management activities, which went on as before the change. The Department showed almost no change, where new ideas and systems were not understood. They introduced only the tools centrally and "legally" prescribed without any customization on their activity. As a consequence, they were poorly used. Some of the new tools were not even known (e.g. the "file data" for activity monitoring was not recognized by its name, even when the interviewees were specifically asked about it).

Looking at intra-departmental dynamics (Figure 9), leadership was mainly hierarchical and transactional. Top managers, indeed, were left free to involve lower levels, but this was really dependent on personal attitudes and some managers themselves complained about the overall low level of involvement. Meetings themselves were arranged just to formalize decisions, not to share them with others. Capabilities were low and dispersed during all the period. People within the Department were indifferent to the incoming managerial ideas and rather preferred to go on with their activities like they used to do:

> *"I would say that the EMP flew over our heads…The reason we monitor a specific objective is not because it's in the EMP. Moreover, we manage in the way we did before…"* (Manager C, T Town's Environment)

Insert Figure 9 here

Public Infrastructures

The Public Infrastructures Department started the process of change mainly following corporate changes. After the introduction of their main programming tools, the triennial and the annual plan, in 2000 the corporate internal auditor and the director of the Department decided to link corporate management control with infrastructures control systems, mainly based on time and work advancement measures. Even after this change, however, their focus remained mainly on technical and financial compliance, consistently with the main tasks accomplished by the Technical Office:

> *"We can have some objectives detailing the general ones, for activity coordination, for example. However, 90% of our objectives are related only to designing and implementing public works"* (Manager B, T Town's Public Infrastructures)

Managers themselves pointed out that the new managerial tools, and specifically the EMP, were seen only as formal requirements. The Department went on using its own monitoring

systems, most of which were set much earlier than when the reform started. The biggest change they claimed to introduce over the 12 years is the creation of the Technical Office. Nevertheless, this represented the attribution of apparently new meanings to a previously existing subject, which remained mainly concerned with compliance control and written communication, still reproducing the traditional bureaucratic archetype. Change is then almost inexistent (Table 2).

Like in the Environment Department, also here people don't seem to be either satisfied or dissatisfied with the new managerial ideas over the whole period considered. They were indifferent to change mainly because it didn't directly affect their activities. Power was mainly meant as hierarchical and concentrated in those able to punish and recognize resources, i.e. the Finance and the Audit Office at the beginning and the Technical Office from the second period. As a consequence, also leadership drew on personal attitudes and exchanges. Similarly to the other Public Infrastructures Departments, capabilities were high and dispersed only on technical issues (Figure 13).

Insert Figure 13 here

5. Results and discussion

The analysis highlights that only four Departments (Social Services in E Town, Environment in C Town and Social Services and Environment in G Town) out of twelve experienced a radical change (see Table 2). Among the other eight cases, four can be considered clearly incremental (C Town's Social Services and Public Infrastructures, G Town's Public Infrastructures and T Town's Social Services), and four seem to have experienced no actual change at all (Environment and Public Infrastructures in both E and T Town). In the following pages, these outcomes of change are discussed together with related intra-organizational variables in case of both disruptive and sedimented process (see Figure 14).

As far as disruptive (Italian) processes are concerned, the movement towards radical change is determined by a steady shift towards interest satisfaction, even if partial (G Town's Social Services). Radical change happens both moving from status quo to reformative value commitment (G Town's Environment) and oscillating within a competitive pattern. In the latter case, commitment is low specifically in relation to corporate-driven changes; while departmental ones are supported (see G Town's Social Services). This is consistent with previous literature (Hinings and Greenwood, 1988, Greenwood and Hinings, 1996) stating

that precipitating factors (i.e. interest satisfaction and value commitment) favorable to the new archetype are essential to achieve radical change. They create, indeed, the necessary agreement with the new ideas and values and directly affect the embracement of the new interpretive scheme. Only when people are satisfied with the new conditions and convinced of the new ideas, change can really start.

Also favorable power dependencies support radical change by moving from concentrated to dispersed: disruptive change, indeed, breaks existing ties of power and tend to create more equal relationships based on the actual understanding of the new systems. At the beginning, in both the radical change cases, power used to be mainly concentrated at the central level in the Finance and Audit Offices, also as a consequence of the strong role of law in imposing some of the changes. In the Social Services people didn't oppose any resistance to such centralized changes and concentration of power, while in the Environment resistance was exerted by the whole Department. Radical change actually took place in all cases when customized departmental accounting systems were pushed forward. Power diffusion on the basis of the recognition of people's relative knowledge supported the understanding of the new accounting tools and finally changed interpretive schemes. People felt the ownership of the new systems and this increased their satisfaction and commitment as well. Moreover, this power didn't necessarily coincide with organizational positions: both the Departments were quite participative along all the process of change and top managers didn't show a prevalent position with respect to lower operational people, who actually often helped in directing change by suggesting and designing the new managerial tools.

Disruptive radical change highlights the need also for high and dispersed technical capabilities at both the managerial and the operational level. This makes sense, given the sudden drift that people have to deal with. Capabilities help managing the process, support the spreading of the new ideas and a more balanced configuration of power over decision making and knowledge. Who knows more has to be considered when taking decisions. Moreover, when people have good technical skills, they become able to actually use the new systems properly. These are all conditions facilitating radical change.

Finally, the cases show that managerial capabilities, i.e. leadership, need to be transformational and substantive in order to break the existing values and introduce the new interpretive schemes. This is an enabling factor, but it is fundamental to commit people and make them actually use the new systems and structures (Figure 14). Transformational and substantive leaders, such as operational people in G Town's Social Services, indeed, directly

affect departmental interpretive schemes by talking with people at different levels, solving problems together, proposing and listening. In presence of disruptive change, this is a way to reduce possible fears and insecurities arising during the process.

Also in the Canadian cases, characterized by a sedimented process, radical change is supported by the shift from a pattern of dissatisfaction to one of diffused (even if partial, like in C Town's Environment, because of faults in actual systems design or tiredness of continuous changes) satisfaction with the new archetype. New ideas and arrangements have to be understood and shared within the organization. People have to accept them to start the real change. Radical change then happens when value commitment becomes reformative, involving all the different management levels and roles (typically accountants vs. operational people like in C Town or higher vs. lower management levels like in E Town). This works also when previous competitive discrepancies exist and is consistent, again, with the role played by the precipitators of change.

In presence of sedimented change the level of power concentration, which is always high at the beginning, doesn't seem to be relevant for the final result. Radical change, indeed, happens in presence of both concentrated and dispersed power dependencies. Like in the disruptive case, among all the resources available, the most important one to gain power is knowledge, which not always coincides with higher hierarchical positions (usually associated with greater power over resources and decision making). When change is more continuous, however, the dispersion of power becomes less important, because change is perceived as something already ongoing. As a consequence, people tend to accomplish it by adding the new "layers" to the existing systems, as it is something that has to be done to continue the process of change. It has to be noticed, anyway, that change is, at least initially, always led by the top, even if through a participated process. Resistance is low both in C and E Town, although in the first case:

"*Those who were negative had to go*" (Manager B, C Town's Environment)

As shown further, the importance of knowledge to gain power is visible (this time with a more "negative" meaning) also in incremental and no change cases, like for the Public infrastructures, where, independently of the process of change, technical and professional knowledge gives the power and the legitimization to resist change.

Similarly to disruptive cases, also in sedimented processes dispersed capabilities lay the basis for radical change to happen (Figure 14). They make people's understanding and use of the

new systems possible. As a consequence of this, they also support and increase the overall commitment with the new values and tools. Nevertheless, they are only enablers of change and their presence alone does not guarantee radical change (see for instance, E Town's Environment). With respect to disruptive processes, leadership actually helping change is still transformational, involving and motivating people through values and ideas rather than simple exchanges, but more symbolic, drawing on the hierarchical position leaders possess. At a first glance, this results would seem counterintuitive. However, while disruptive processes need substantive leaders to involve and motive people to a sudden and huge leap, in this case, the formal position helps legitimize and stabilize the continuous changes that are introduced over a short period of time, limiting people's resistance:

> *"Of course you have to get the approval of top bureaucrats and the council. Any time you want change in an organization you usually go through the top level"* (Manager B, C Town's Environment)

Only in E Town's Social Services leadership becomes more and more substantive over time, possibly because of the loss of the strong formal leadership exerted by the previous GM (who was replaced after career advancement) and the recognition of their achievements in the process of change. This doesn't appear, however, to be directly related to the achievement of radical change, which actually happens earlier in the process.

Incremental change, independently of the type of process, shows a pattern of interest dissatisfaction with the new archetype along all the period under study. They reach at most a state of partial satisfaction. At the same way, they all show no clear pattern of value commitment (Figure 14). In some cases (like T Town's Social Services), they fail to change even in presence of reformative value commitment. This again supports previous literature (Hinings and Greenwood, 1988, Greenwood and Hinings, 1996) in differentiating precipitators and enablers of change. While enablers, such as technical capabilities, are important but not sufficient to change, the absence of interest satisfaction with the new archetype and consistent value commitment make radical change impossible regardless the type of process followed.

Looking more in details at incremental change and disruptive processes, power shows no clear pattern. It goes towards a more dispersed pattern in T Town's Social Services, where technical knowledge and skills are clearly used in terms of resistance to slow down change in the first period. Power is also exerted by central offices, which detain control over resources

and share decision making with the Department. In G Town's Public Infrastructures, instead, power remains mostly concentrated in the top managers and the Finance and Audit Offices. In all cases, however, change is mainly top-driven (although in T Town it is on the whole more participated). Technical skills and capabilities are dispersed throughout the Departments since the beginning, although they are not always related to the new managerial tools, but rather to more "professional" ones (see G Town's Public Infrastructures). This configuration surely hampers radical change. It makes, indeed, harder the actual use of the new systems and raises competing claims about ideas and values to be sustained. Finally, with a resulting incremental change leadership is mainly symbolic. Both transformational and transactional leadership alternatively emerge, making change even more difficult because of the unclear emerging guide. This is consistent with the unclear pattern of power previously found. In the analyzed cases, moreover, leaders tend to coincide with top managers. Some people try to experiment by themselves, thanks to their partial commitment to the new ideas (see the operational people in G Town's Public Infrastructures and the link between the triennial plan and the EMP). However, attempts are usually cut off by top managers resisting to change (i.e. exerting their hierarchical and formal power). Conflicting guidelines and unclear pushes make change efforts void.

In sedimented processes partially different dynamics emerge. Looking at incremental change, power dependencies are more concentrated than in disruptive change (Figure 14). In particular, control over information and knowledge provides top managers with power. Similarly, power of resistance is mainly given by technical knowledge (see the Public Infrastructures in C Town), which makes people able to hamper the whole process. They own, indeed, a resource that cannot be easily understood or recovered by others. If knowledge is concentrated in those resisting, then, radical change is threatened. Technical capabilities don't show any particular pattern, while leadership is mainly transactional and symbolic. Consistently with previous research (Burns, 1978, Hinings and Greenwood, 1988, Bass, 1985, 1990, Parry and Proctor-Thompson, 2003, Schein, 1992, Asfaneh, 1993), such features of managerial capabilities don't help radical change achievement. In cases of sedimented change, in particular, transactional symbolic leaders is unable to motivate others by only relying on resource exchange. When the effort of change is ongoing and long-lasting over time, and constant changes and improvements are required, people need more than simple resource-based motivation in order to change their interpretive schemes. That's why in the analyzed cases this leads only to an incremental change.

Finally, four cases of no change or mere formalization of pre-existing accounting practices can be highlighted. In disruptive processes, both cases (T Town's Environment and Public infrastructures) show an indecisive satisfaction. People, indeed, are neither satisfied nor dissatisfied with the new managerial archetype. Consistently, value commitment appears indifferent to the new accounting systems and structures. As discussed before, this configuration of precipitators alone already forecast about the inability to achieve radical change. With respect to previous cases, moreover, interest satisfaction and value commitment are even more blurred. This unclear situation, together with the low agreement on the changes going on, brings about a non-change, where no real new accounting structure can be put in place. Power is mainly concentrated in top managers, against whom low resistance is exerted due to the low involvement and commitment of the other levels. Top managers efforts, moreover, are concerned with traditional issues (e.g. expenditure limits and technical compliance) and are not able to challenge the status quo situation. Technical capabilities are everywhere characterized by a situation where new systems and structures are poorly known and managed. As a consequence, overall skills are low although dispersed throughout the Departments. The lack of this enabler makes any kind of change almost impossible, since it limits even the mere and basic use of the new tools, further increasing people's dissatisfaction. Leadership is mainly transactional and symbolic over all the period, hinging on hierarchical relationships (Figure 14). As seen before, this configuration hinder departmental commitment to change and doesn't provide with a real sponsor of change.

Also with a sedimented process, but no actual change (see E Town's Environment and Public Infrastructures), satisfaction with the new archetype seems to be unstable and on average low. Over the 12 years considered only value commitment gradually and slowly enhances by moving from status quo state to reformative (in both cases only at the very end of the period). This isn't enough to see any real change over the period under study. Concentrated power dependencies can be highlighted in the two Departments. The Public Infrastructures represent, again, a particular case where power is concentrated at the lower levels in the more operational people, who are actually those owning the technical knowledge. They tend to privilege technical and professional issues over new managerial values. As a consequence, they shield themselves from the unwanted change. Consistently with this situation, technical capabilities are dispersed at all levels, while managerial ones show a pattern similar to the disruptive process, where hierarchical symbolic leadership is particularly present:

"I think everyone recognises that they have a boss and if this is a priority of your boss, it very quickly becomes your priority. And if you know that your performance is going to be judged based on your participation and contribution… that relationship needs to be structured" (E Town's Environment, Manager A)

Insert Figure 14 here

6. Intra-organizational dynamics: some emerging variables

The analysis of the twelve cases highlights other variables which proved to be relevant in achieving a radical outcome of change or in hampering it. In all the cases, when describing the achievement of change, the affecting factors and the final outcome, the interviewees pointed out four variables, which were not initially considered: internal communication, personal characteristics, actual participation and type of activity. Such variables were coded as emerging from their answers.

Irrespective of the pattern of the process, all the interviewees underlined the importance of internal active communication in fostering radical change. While everyone recognized the importance of the factor, at the same time some of them complained for a lack of communication in their own Department while carrying out change. Communication was seen as a valuable means to spread new ideas and commit people, and was usually associated to an effective transformational leadership. Those who communicated most, indeed, were also recognized to pay particular attention to people involvement during change. As shown in Table 3, summarizing the emerging variables and their levels, cases of radical change always present a high communication degree. However, E Town's Public Infrastructures are also characterized by a high communication, although with an incremental outcome. Communication, then, is not enough to make change happen. It can be rather identified as another enabler of change, to be added to the variables already considered by the archetype framework.

Personal characteristics also affect the final outcome of accounting change. In particular, interviewees recognized two main features: individual attitude in terms of openness to change itself, and age (Table 3). Some people are naturally open towards change. In the cases under study, where their presence was prevalent, this made the whole process smoother and the final outcome of change more likely radical:

"A lot of people were just in a reactive mode, just taking care of the problems. We had this kind of things as planning, performance measurement, they are forward-thinking. While the majority of the people in the organization couldn't keep up with the day to day" (Manager W, E Town's Social Services)

"Also personal characteristics matter: we had someone really into change and being able to get all the data available. A type like this for sure will be able to recover something from any kind of system!" (G Towns' Social Services)

Similarly, age was recognized as a factor likely to slow down the process of change and eventually make its outcome incremental:

"Some people were already open and available to change, it was their attitude or they were interested in it. Others were older, rigid, they had more difficulties in changing. Older people suffered change the most, irrespectively of their formal position within the Department" (Manager G, G Town's Environment)

"Some were just resistant to change, part of that is demographic. A lot of folks who are in their 50s didn't grow up with having a computer on the desk. I'm only 40 and I remember when we got our first computer in our school, I was in grade 9 when that happened. And it was the basic that you could just … it was like a glorified typewriter!"(Manager W, E Town's Social Services)

The third important emerging factor leading to radical change is the actual participation in the process of change, most of all from the lower levels (Table 3). In most of the cases change was planned and implemented, at least initially, top-down. What made the difference was the following actual involvement. Just having someone trying to commit people, in fact, cannot be enough. People must be responsive in an effective way. This variable is, of course, strictly related to commitment and leadership. As for communication, moreover, high participation is always related to radical change cases, although it exists also in cases of no change, such as T Town's Environment. It represents thus another enabling factor, but it's not sufficient to ensure radical change. While the archetype framework doesn't take into consideration personal variables and "soft" aspects of the organization, the cases show that the level of communication and participation, together with own attitude to change and age, are important variables that should be considered in the study of the outcomes of change.

Finally, an important contingent variable appears the departmental activity. All the interviewees highlighted the relevance of the type of activity performed for the introduction

and management of the accounting changes, independently of the pattern of process. In all cases, Social Services were claimed to rely on a higher public service consciousness that made more visible the need to measure results consistently with certain quality standards:

"We deal with services which touch citizens directly; we have to adopt the right tools!" (Manager E, T Town's Social Services)

"Our aim was always to provide services to people, unlike Transportation and Street where ultimately, yes, you are providing services to the people, but it's not that direct. Whereas we were very much directly involved with citizens" (Manager MG, E Town's Social services)

As a consequence, all the interviewees recognized the need to measure such services distinguishing, even within the same Department, between those which were more standardized (such as ambulance, fire rescue, cemetery, etc.) and those more related to personal specific needs (elderly assistance, community services, etc.). For these latter, in particular, it was hard to define both output and outcome measures, making the overall change more difficult. For some customers, finally, it was hard also to recover direct quality assessments:

"Some quality measures are particularly difficult: we have elderly assistance services, but how do we set a benchmark or even a target? They can be forced at bed or unable to understand. You cannot even rely on their families..." (Manager E, T Town's Social Services)

This type of performed activities, then, affects the final outcome of change in two competing directions: on the one side, they are characterized by a higher need to plan, control and measure both financial and non-financial performances. This awareness actually supports radical change achievement. On the other side, such activities are difficult to program and measure by definition, because of their direct relation with the customer. The final effect on change will result from the interaction of this contingent variable with the other intra-organizational dynamics.

As far as the Environment Department is concerned, the interviewees underlined the variability of environmental PMs according to the different levels of environmental risk. Moreover, they all referred to the primary importance of financial resource controls:

"The Environment is one of the Departments with higher revenues. Thus we added other control systems, although simple..." (Manager G, G Town's Environment)

"It's all about the management of assets as opposed to discrete activities, what we do from a product perspective. Waste and recycle services, for example, are a non rate dependant operation, water is rate dependant" (Manager R, C Town's Environment)

This natural focus can constrain the possibly achievable outcomes of change since the beginning of the process, making radical change harder.

Public Infrastructures managers transversally pointed out three main needs related to accounting change: (i) necessity of structured financial resource control systems, (ii) relevance of considering territorial growth and programming issues, (iii) consideration of professional issues.

While the second point leads to the introduction of programming documents (see the triennial and the annual plans in the Italian cases and the strategic business plans in the Canadian ones), which can even match the new values proposed by the managerial archetype, the other two points seem to overwhelmingly hamper radical change. They strengthen, in fact, the persistence of old bureaucratic logics (see most of all the disruptive cases). Moreover, they tend to slow down the overall change because professionals often embody principles and ideas that compete with the new managerial ones:

"Each group depends on the background they have, they have a different level of push back... engineers would actually say "I'm a good engineer, I don't need this guy to tell me that I'm a good engineer! Just give me the money"". That's why we have to sell it and justify the projects. Finance people say "I've been doing this accounting for years, this is what has been done, what are you talking about these changes? Even if they are helpful I don't understand the reason" (C Town's Public Infrastructures, manager S)

"We're driven more by an environmental paradigm than by an administrative service paradigm..." (E Town's Public Infrastructures, manager H)

Change appears to be then more difficult here, although actors recognized that the service provided and the public infrastructures themselves were much easier to measure and accounting tools were in general much simpler than those required elsewhere:

"Under some perspective, it would be easier for us to measure public infrastructures. We can produce detailed advancement reports, our objective is the infrastructure itself, we have a lot of data available and they are objective... it would be hard to find an alibi then..." (Manager R, G Town's Public Infrastructures)

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7. Conclusions

The aim of the paper was to investigate how intra-organizational dynamics combine with different patterns of process to foster or hinder the final outcome of accounting change. In particular, considering both disruptive and sedimented processes of change, the paper examined: (i) why radical change happens, and (ii) what the intra-organizational variables that drive radical change. I analyzed twelve cases (three Departments in two Italian and two Canadian Municipalities) that over the last decade carried out a process of reform shifting from a bureaucratic archetype to a managerial one.

As discussed in the paper, results show that comparing outcomes of radical change, with both the patterns of process, radical change is led by the shift to a higher level of satisfaction with the new archetype and high and dispersed technical capabilities. In cases of sedimented process, radical change will more likely result from reformative commitment, while disruptive change allows both competitive and reformative patterns. Power has a more dispersed configuration in disruptive radical change than in sedimented one. Finally, leadership required for radical change is transformational in both cases, but substantive in the former case and symbolic in the latter.

Such patterns of intra-organizational dynamics are confirmed also looking at different outcomes of change within the same type of process. It has to be noticed that, within both the patterns of process, what really distinguishes radical from incremental change is the presence of a certain degree of satisfaction with the new archetype and (i) transformational substantive leadership in case of disruptive processes, or (ii) transformational symbolic leadership in case of sedimented processes. All the other dynamics present variable patterns and differently combine for radical change. Interests satisfaction reveals fundamental for radical change because it's related to the perceptions of the new tools and ideas. If people are satisfied with the new archetype and with the new status and conditions it brings about, change is facilitated and supported. Satisfaction, then, can affect commitment as well. As a consequence, it seems to be the first and most important factor to be considered in order to achieve radical change. The second important differentiating factor is leadership, which affects directly the outcome of change and is often recalled by the interviewees as important to generate commitment. As said before, although this might appear counterintuitive, radical change in disruptive

processes is characterized by transformational and substantive leaders, because it's important to generate commitment and involve people in a more active and substantive way in order to spread new ideas, convince others and generate the required leap. A more continuous and sedimented process, instead, requires a symbolic leadership to win people's resistance and tiredness of change. Although they can be more or less concentrated, technical capabilities also play an important role in supporting change: power and leadership are, indeed, often recognized on knowledge basis, when new accounting ideas and meaning are actually owned by a selected number of people. This helps legitimization during the process of change. Too technical knowledge, however, can also hinder change. This is transversally true in the Public Infrastructures Departments, where the engineering principles never gave the way to the managerial ones.

In addition to these, interviews highlighted other important personal and contingent variables for the achievement of radical change, i.e. internal communication, personal characteristics, actual participation and type of activity. Such results strengthen previous research on organizational change. Communication, in fact, can be seen as a means to decrease uncertainty, thus increasing change acceptance (Wanberg and Banas, 2000, Daly, 1995; Mayer et al., 1995, Ming Lau and Woodman, 1995, Lovelace et al., 2001, Putnam and Boys, 2006, Chawla and Kelloway, 2004). Similarly, change management literature claims that openness to change and involvement during the process are critical for achieving change (Cornell and Herman, 1989; Fiorelli and Margolis, 1993; Wanberg and Banas, 2000; Chawla and Kelloway, 2004). These variables alone, however, represent only enablers and cannot ensure radical change. Further research is needed to better incorporate such variables in the existing archetype framework.

This paper has a twofold theoretical contribution. First, it contributes to existing accounting literature by providing a better understanding of the role of intra-organizational dynamics in affecting different results of accounting change efforts at the organizational level, even under similar external processes (Preston et al, 1992; Etherington and Richardson, 1994). In particular, while current approaches aren't able to fully account for such differences, I propose the adoption of the archetype model, which explains in a more detailed and comprehensive way how intra-organizational factors can generate and foster possible inconsistency or crisis and thus affect the outcome of change. This approach has been poorly used to study accounting. Nevertheless, it proved useful also to better identify and define possible outcomes of accounting change (i.e. radical vs. incremental), by considering not only

the formal introduction of the new accounting systems, but also the shift in the related values and ideas through which they are used.

Second, looking at organization theories of change, this study combines intra-organizational dynamics and different patterns of the process to investigate their influence on the final outcome of change. In particular, it compares both different outcomes of change in the same type of process and different processes with the same final outcome. Hinings and Greenwood (1988), although adopting a different level of analysis, were the first to examine intra-organizational dynamics through the archetype framework looking at the UK LGs, which were undergoing a disruptive process of change. This research, however, goes further existing studies by considering together both intra-organizational variables and different patterns of change process and by comparing their influence on the final outcome of change. Finally, I suggest the need to incorporate in the archetype framework some personal and contingent variables, which represent enablers of change and contribute to explain its final results. Specific relationships are highlighted and proposed.

Some managerial implications can also be drawn. During processes of accounting change, indeed, managers should focus in particular on the achievement of people's satisfaction and the right kind of leadership. It is important, moreover, to try to understand the pattern the process of change they are undergoing in order to influence the right organizational variables. This dimensions matter also for policy makers, when designing public sector reforms and influencing organizational incentives to change.

More research is needed to further investigate the highlighted relationships. Specifically, quantitative studies would be useful to point out differences and explanatory powers of the variables here highlighted. For simplicity sake, moreover, this paper considered disruptive vs. sedimented processes as dichotomous. They are, however, placed along a continuum. Further research is then needed to highlight how different degrees of sedimentation (or disruptiveness) can affect the final outcome of change. Possible differences in intra-organizational dynamics at the organizational vs. the departmental level could also be studied. Finally, it would be interesting to go on following some of the analyzed Departments, which didn't finalize their movement towards the new archetype during the period under study, in order to further investigate whether they finally headed towards a radical accounting change.

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Tables and Figures

Table 1 - Bureaucratic and managerial archetypes

	Bureaucratic Archetype	Managerial Archetype
Interpretive schemes (Hinings and Greenwood, 1988, Borgonovi, 2005, Schedler, 2007)	Local administration	Service provider
	Based on professional differentiation	Based on the integration of professional activities
	Professional practice defined by intrajurisdictional professionals	Analytical appraisal by transjurisdictional management
	Public administration as a closed system	Public administration as an open system
	Constitutive role of legitimacy	Performance-driven legitimacy
	Objectives selected in accordance with political rationality	Objectives selected also in accordance with economic and organizational rationality
	Neutral administrative activity, separated from politics	Administrative activity interacting with politics
Structures and systems (Hinings and Greenwood, 1988, Borgonovi, 2005, Pollit and Bouckaert, 2000)	High differentiation and low integration	Modest differentiation and high integration
	Incremental resource allocation system	Non-incremental resource allocation system
	Hierarchical bureaucratic control system	Decentralized control system, reporting to rhe CEO
	Recruitment and promotion based on professional competence	Recruitment and promotion based on professional and managerial competence
	Internal organization untied to selected objectives	Internal organization tied to selected objectives
	Focus on formal procedures	Focus on processes (input-output)
	Formal evaluation, based on regulation	Efficiency and effectiveness evaluation, linked to public needs
Accounting structures and systems (Borgonovi, 2005, Pollit and Bouckaert, 2000)	Main purpose: to limit spending; to show compliance of actions with budget	Main purpose: to limit spending; to orient behaviours toward goal attainment
	Basis: obligation and cash	Basis: obligation and cash, accrual
	Focus: financial inputs	Focus: financial and non financial inputs, outputs
	Tools: budgetary accounting	Tools: budgetary accounting, executive budget, accrual – based reporting, managerial control systems, performance measurement
	Centralized data gathering, information processing and use (Finance Officer)	Decentralized data gathering, information processing and use; integrated accounting system
	Finance Officer	Finance Officer and Controller

Table 2 – Archetypal changes and interpretive schemes: some quotes

	E Town	C Town	T Town	G Town
Social Services	**Radical Change** Manager MG *"I would say that certainly the awareness to address some of these keys in this scenario has definitely occurred. Things like safety, turnover rate were never addressed before. Performance measurements are really used to monitor past performance and look at areas that*	**Incremental change** Manager J *"Of all the changes, PMs are the most difficult ones to deal with. There were PMs when I joined the City (number of service delivered, number of clients seen in my business). It was always in there but it was very sort of input/output. The major shift in PMs over the last 3 years has been to*	**Incremental change** Manager M *"For us it's fundamental to control revenues and expenditures... When we prepare the EMP, we try to split the legislative budget..."* *"Fila Data has the aim to understand citizens' needs and population trends in order to lead budget appropriations. We*	**Radical change** Manager A *"The cost accounting system didn't affect us... we appreciated more the EMP and the related indicators and objectives"* *"Such tools either are well prepared or they are just lived as a weight, a formal requirement without answering our real*

	should be improved." *"Before when we want to get budget numbers, we want to get information regards our business areas, we would have to rely on that individual business area to provide that information. Now we all have SAP on our computer and we withdraw it. So in an efficient, effective perspective is much easier."* Manager W *"What I have seen in the time that I've been here is very much a different focus … before, it is the budget, you do what you can within your budget. Now there seems to be a bit more of attempt to do what is right. Before it didn't matter: how much tax levy dollars were going to run our facilities. Now it's "ok, there is the tax levy plus your earning revenues. You are charging fees to people to attend the facility so what is the cost recovery ratio?""*	*outcome and meaningful PMs to the citizens."* *"There is a lot of information available. I'd dare say though that there are a lot of people at my level that also with that information you got the responsibility on how to get it and to know how to use it. And people don't know how to get it and use it… so they don't have anything yet! All this wonderful stuff sits there on a computer somewhere, I can access, but I don't know how to do it…"* Manager M *"There is more accountability in terms of the running of the financial statement."* *"At a very high level they tend to look at PMs quarterly, but for sure they look at it on an annual basis. And when they prepare the annual budget they always look at that closer… so that they can adjust accordingly."* *"One effect of the 3 year budget cycle is that council members used to spend days and night going through the budget to approve the budget of each department. Now they focus at a high level, the time is reduced and they don't have to ask all those questions. They only have to approve the change…"*	*weren't involved in the preparation, we had just to insert expenditure data"* *"It was hard to change mentality, and it didn't change completely yet: looking not only at the number, but behind it"* *"People feel more responsible and aware of expenditures"* *"Our reports usually follow the steps and the deadlines of the legislative budget"* Manager E *"There was a scandal and the City Manager decided to step back, so our objectives became less strategic and more related to our ordinary activities"* *"In order to take decisions we look at quality indicators, not at the EMP, which is more seen as just a tool for formal compliance with the law"*	*information needs."* *"The consequence of such reform was to focus more on real problems, avoiding mere perceptions, increasing analysis and information. Surely our approach to decision making and problem solving changed, although gradually and in different ways depending on the type of service"* Manager F *"It wasn't easy… even today… the EMP should be more descriptive"* *"There is now a higher consciousness of expenses, of what you do. Cost accounting makes clear the final result of your activities. It's useful for both politicians and managers: it helps decision making!"*
Enviro nment	**Incremental/no change** Manager BK *"In drainage we were different because when we started putting our system in place there wasn't a lot of change."* *"Now you have this software (SAP) trying to run your business activity. It's the other way around: your business should be running on projects and efficiency and how to best use it. But it came from the top management, we didn't do anything. They didn't customize so much. We use it as*	**Radical change** Manager B *"With the new multiyear reporting system, if you make changes in the morning and you want to see them in the afternoon you make a demand and it's updated.…"* *"Everyone is the owner of part of the system, that is our approach, And it's slowly taking in… There are small areas of responsibility and within those areas you have ways to spend your money, and to show it by activity."*	**Incremental/no change** Manager B *"Our bigger problem is learning to measure. I think it's a problem for all bureaucratic organizations"* *"The EMP and the PMs are not a way to take responsibilities, but to stay in your own borders…"* *"I've been in the public sector for many years and I realized law is slowly changing the way people work, control deadlines, measures… for examples, without the EMP*	**Radical change** Manager G *"We never interpreted the EMP as a management tool, it's not linked to actual expenditures. It's not really the tool we look at to take decisions during the year. We usually have other tools…"* *"At the beginning in order to identify our objective, we just described our day-to-day activities. It's still the same, but the logic changed: now we identify an objective, we explain that the context is much more*

	much as the previous system.” Manager M *“Definitely we know we are moving forward with the less optimal situation, and the integration is the best way to go, but it was just a logistic reason so we had to move forward with a non integrated system. There was definitely some spot of how the ISO would fit in there and that was done more informally than I would say with a formal process going through what are our business plan objectives here and what are our strategic plan objectives and how ISO is gonna implement those objectives”* *“I think there is a general overall understanding and definitely not an understanding of the power of SAP. We only use it for the minimum amount we can use it and control what our top management wants us to control.”* Manager A *“Before we just relied on Microsoft-type tools, word, excel and different database stuff. You could appreciate that that created problems because we got a sort of path solutions, but it’s not like everything integrated and connected.”* *“Well, the accounting system really isn’t a part of our system at all. It is really minimal”*	*“All the changes were almost too much at once, that’s why we changed this, this and that, but we had to have a proper migration into all these changes.”* *“A consequence of these changes? Now they are not afraid to go and ask others about, maybe a traditional way of process, that has been used for years and years and is more effective… It also brought some improvements in the way they look at the job.”* *“You can find everything you wish to report to, number of hours, type of workers involved…, all the details to know if you have maintained or increased your asset base. The reporting is there, but it’s something you need to work with…”* Manager P *“Change forced you to look into long term programs and start link PMs more tightly to the program. So rather than going back every year and ask for money, you can take a longer term view and you can manage a project more with performance indicators: “am I meeting my goals and targets in terms of revenues, liters per capita per year, water demand”. I can track and you can sense…”*	*we would have never redesigned our website. There would have always been something more important to do!”* Manager C *“I would say that the EMP flew over our heads…The reason we monitor a specific objective is not because it’s in the EMP. Moreover, we manage in the way we did before…”* *“All my objectives are identified in relation to what I know I’ll be doing during the next year. You don’t identify an objective that you know to be unreachable.”* *“This is a public organization. It’s been accustomed for year to work in a certain way. Suddenly you find new projects and tools that don’t fit with the public employee’s culture anymore”* Manager MF *“If I think of the EMP, I immediately think of the legislative budget!”* *“The EMP helped systematize our work”*	*complex, we have less staff, we need more efficiency…”* *“After the reform innovation was more related to law, turnover and de-bureaucratization, rather than single new accounting systems and tools”* *“With the ISO certificate you have to pass controls, you can’t cheat, you have to follow deadlines and demands have a chronological order… the system is not flexible. There is no doubt the department changed and improved its efficiency”* Manager M *“The link between the ISO system and the EMP was quite natural: we realized that some indicators could be used for both. It was easy because they were already embedded in our culture and our understanding of what an objective is”*
Public Infrastructures	**Incremental/no change** Manager K *“The performance measurement is a struggle… If we can come up with true indicators identifying how we perform, we’re all onboard. But if we cant find a true indicator, then we don’t want to measure it”* *“After the change we really used the same*	**Incremental change** Manager S *“People are starting now to track infrastructures and even infrastructure based PMs: how many water main breaks per kilometre… only very recently, we started to think about customized key PMs.”* *“There is still the perception “I wish it was*	**Incremental/no change** Manager B *“The EMP didn’t change much our activity. We already had our specific regulation, we already monitored public infrastructures…”* *“The EMP contains the objectives related to people’s pay and incentives. It’s important because it touches wages!”*	**Incremental change** Manager B *“We have the same tools they use at the central offices, so we monitor commitments to be paid and establishments of account receivables to be recovered and expenditures… Their management is decentralized.”* *“We use the EMP, but we still don’t own*

decision... it really clarified and made roles simpler. No more questions, no more confusion, no more contradictions in regards to who is responsible in doing what. It was more a matter of clarifying, there wasn't something new."

Manager H

"A bureaucracy (talking about the Municipality) *always has a tedious process of incremental approval."*
"Ours is very much an engineering entity, a drainage utility can be very quantitative, so we have a lot of decisions that have to be taken numerically, whereas our counterparts in social services, it is very difficult for them to quantify"
"The information you have in the reporting...this is pretty hard to take decisions on."

Manager W

"Before project management, all of phases were there, but they were disconnected. What I have done is to organize it differently and the project manager who could see the whole picture of the project and be accountable for the whole project."
"We use primarily financial information: project payments, project plans, capacity of the budget, spending. There are some measurement tools in it, but it's primarily on accounting factors..."

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the way it was... now there is much more confusion..." After 3 years, now I can almost see the processes, they now start to go on their own..."
"I think we made matters worse by doing 3 year budgeting... We got the money and we have to figure out how to spend it... my mum told me "be careful what you ask because you could get it!" The problem we are having here is we are starting to see our managers and project managers inflating the costs because I've gone from a 1 year accounting to a 3 year accounting basis. Can you tell me how an engineer can forecast a capital cost over 3 years? So what they do is they buffer the cost, they guess..."
"The business planning exercise is only intended to fill in a template!"
"How do I actually use this information to make this decision? Here, tell me what your PMs are! What? What are PMs?? Of course we don't look at those data to decide, we decide on intuition!"

Manager J
"My impression is this business unit has its own systems..."
"The business plan is not yet used as an output... A lot of the decision is historical based.... This is my perception."

"One of our main control tools concerns control on compliance"

Manager C
"We try to hold people accountable not only on expenditures, but the overall consumption. But they don't feel responsible for that yet"
"New systems would imply a real managerial activity on services, resources, responsibilities. We are more used to compliance"

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it"
"Cost accounting doesn't influence our activities because it's limited at current items..."
"A consequence of such changes is we are more active, we understand better even things not directly related to our activities."
"Management control systems should help our activity, while at the moment they are a duty, a formal requirement"
"To take decisions in our day-to-day activities we look at our technical tools and documents."
"Most of us just endured the change, because it was unavoidable. This way it was less painful maybe. At the beginning it was just a formal requirement: public works monitoring, Gant diagrams, etc. Now it's a kind of routine."

Manager D
"There is a kind of monitoring. It's managed through meetings and informal discussions"

Manager R
"We are not used to the EMP yet ..."
"Things are more political than technical, more related to visibility than real substance."
"With respect to the past, conflict has increased thanks to the reforms"
"Now I'm responsible of the documents I sign. It forces me to be aware of my role!"

Figure 1 – Model for understanding radical change (from Greenwood, R., and Hinings, C.R., 1996. Understanding radical organizational change: bringing together the old and the new institutionalism. *Academy of Management Review*, **21 (4), 1022-1054)**
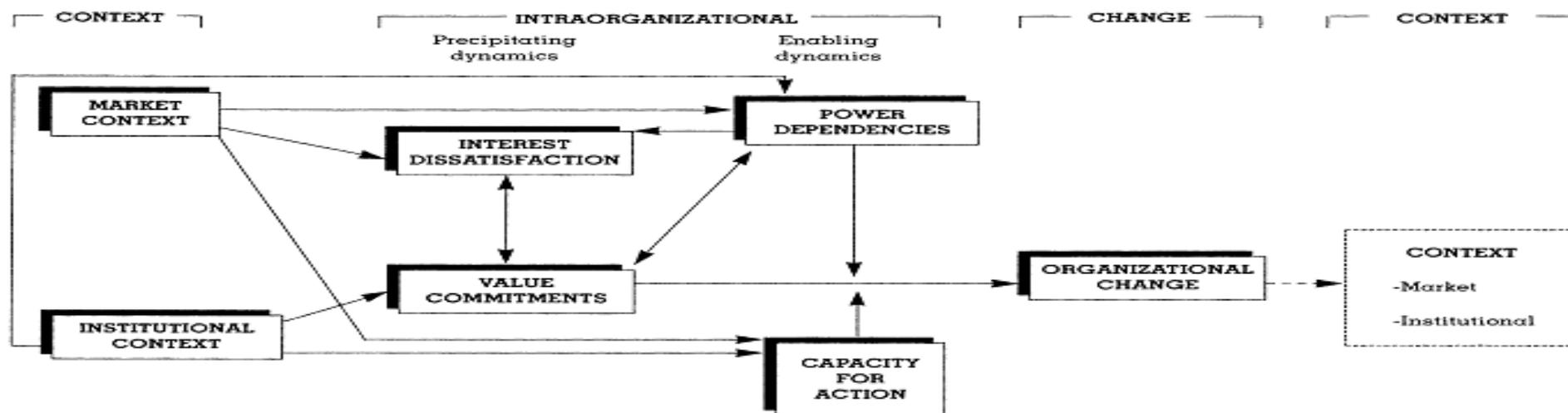
Figure 2 – Intra-organizational dynamics in E Town's Social Services

Social Services Department in E Town				
Variable/Years	**1995-98**	**1999-2002**	**2003-2006**	**2007-08**
Accounting changes	Pre-existing departmental Business Plan and PMs (financial and non-financial) Corporate business plan SAP corporate introduction Class departmental introduction Project City 97 reorganization and departments amalgamation: departmental creation of a strategic service Integration of Class with the other departmental systems	New push towards non-financial PMs (for the new leader's arrival in 2002)	Fusion of Community service and Emergency departments	Finance function decentralization SAP non-financial integration and reporting Stop to the corporate business plan, the department goes on by its own
Interest Satisfaction	Dissatisfaction with the new archetype	Dissatisfaction with the new archetype	Satisfaction with the new archetype	Dissatisfaction with the new archetype (due to the way systems are implemented)
Value Commitment	Competitive (reformative top management vs. indifferent others)	Competitive (reformative top management vs. indifferent others)	Reformative	Reformative
Power Dependences	Concentrated in Council, top managers and IT people (power over knowledge,	Concentrated in council, top managers and IT people (power over knowledge,	Dispersed (power over knowledge, meanings and information)	More and more dispersed as power over knowledge, meanings and information

	meanings and information) Resistance for age, perceived loss of control over information or increased responsibilities.	meanings and information) Resistance for age, perceived loss of control over information or increased responsibilities.		increases throughout the Department
Technical Capabilities	High and dispersed (IT and staff)	High and concentrated (leaders)	High and concentrated (IT and leaders)	High and concentrated (IT and leaders)
Leadership	Transformational and symbolic GM Transformational and substantive IT people	Transformational and symbolic GM Transformational and symbolic for some top managers (e.g. manager B)	Transformational and symbolic GM Transformational and symbolic for some top managers (e.g. manager B)	Transformational and substantive (e.g. manager B) Change in the GM

Figure 3 – Intra-organizational dynamics in C Town's Social Services

Social Services Department in C Town				
Variable/Years	**1995-98**	**1999-2002**	**2003-2006**	**2007-08**
Accounting changes	Pre-existing departmental PMs on trends, strategies and inputs/outputs Corporate Business plan and related financial and strategic objectives/measures	Corporate integrated IT system (HR, accounting and finance) Infra annual financial report (3 times per year) Corporate reorganization	Recentralization of the finance function Control systems update (risk management) First 3 year budget (operating) Corporate PMs restructuring PMs monitored quarterly at strategic level: improved quality and detail (number of participants vs. possible facilities uses, number of participants in registered programs per class of citizens, citizens' satisfaction, etc.) Deputy owners	First 3 year budget (capital)
Interest Satisfaction	Dissatisfaction with the new archetype	Dissatisfaction with the new archetype	Partially satisfied with the new archetype	Partially satisfied with the new archetype
Value Commitment	Competitive (reformative accounting vs. status quo operational people)	Competitive (reformative accounting vs. status quo operational people)	Reformative (operational people revise and start appreciating PMs, although they don't always know how to use them)	Reformative (operational people revise and start appreciating PMs, although they don't always know how to use them)
Power Dependences	Concentrated in corporate managers and GM (power over resource, decision making and information)	Concentrated in corporate managers and GM (power over resource, decision making and information)	Concentrated in top managers and GM (power over resource, decision making and information)	Concentrated in top managers and GM (power over resource, decision making and information)
Technical Capabilities	High and dispersed	High and concentrated	High and concentrated	High and concentrated
Leadership	Transactional and symbolic (centralized, top down and imposed)	Transactional and symbolic (centralized, top down and imposed)	Transactional and symbolic (centralized, top down and imposed)	Transactional and symbolic (centralized, top down and imposed)

Figure 4 – Intra-organizational dynamics in G Town's Social Services

Social Services Department in G Town				
Variable/Years	**1995-98**	**1999-2002**	**2003-2006**	**2007-08**
Accounting changes	Previous attempts of financial and non-financial performance measures Integrated corporate accrual accounting system Corporate EMP by objectives Corporate personnel evaluation (pay-related) on results	Corporate management control systems and Internal Audit office Corporate management control and cash based accounting decentralization Territorial decentralization of accounting functions	Mayor's Strategic Plan Corporate Cost accounting (standard and actual costs) Social Service Reports (service expressed demand, demanded quantities, manifested needs, financial resources, etc.) Inspections, random quality control, customer satisfaction surveys Webdistretti software introduction (Social Services intranet and monitoring) Corporate dashboard: six month performance reporting (direct and indirect costs per area and service, demand monitoring, efficiency and effectiveness indicators)	Technical Reports (detailed information about the customer cases actually charged to the Municipality: customer's needs, actions taken, evolution over time) External service accreditation (and related indicators/ standards) Corporate Accrual accounting decentralization New Corporate Strategic Plan by objectives and year by year investments
Interest Satisfaction	Satisfaction with the new archetype	Satisfaction with the new archetype	Partial satisfaction with the new archetype	Partial satisfaction with the new archetype
Value Commitment	Reformative	Reformative	Competitive (reformative with departmental systems vs. status quo with corporate ones)	Competitive (reformative with overall departmental systems vs. vs. status quo with accreditation)
Power Dependences	Concentrated in politicians and Finance Office	Concentrated in Audit Office and City manager	Dispersed at the departmental level (operational people and managers emerge on knowledge basis)	Dispersed at the departmental level (operational people and managers emerge on knowledge basis) No one is able alone to hinder change (see accreditation)
Technical Capabilities	Moderate and dispersed	Moderate and dispersed	High and dispersed	High and dispersed
Leadership	Tranformational and symbolic	Tranformational and symbolic	Transformational and substantive (bases on meanings and technical knowledge)	Transformational and substantive (based on meanings and technical knowledge)

Figure 5 – Intra-organizational dynamics in T Town's Social Services

Social Services Department in T Town				
Variable/Years	1995-98	1999-2002	2003-2006	2007-08
Accounting changes	Pre-existing corporate personnel evaluation (pay-related) on specific results and objectives and departmental infra-annual personnel evaluation Corporate reorganization by divisions Corporate ex-post accrual accounting Corporate EMP by objectives Unstructured departmental financial reporting (every 2/3 years)	Corporate management control systems (first experiments in 1980) and Internal Audit office Corporate management control and cash based accounting decentralization Structured departmental cash based reporting Service quality monitoring system Link btw the service quality monitoring system and the EMP	Corporate Social Reporting Corporate Cost accounting by service area on cash based accounting information	Corporate "File data" (monitoring of service costs, customers, expenditures, etc.) Bookkeeping control and expenditure monitoring on locally decentralized services Regulatory Social Plan (political document) demand monitoring and programming (territorial service integration and expenditures planning)
Interest Satisfaction	Dissatisfaction with the new archetype	Dissatisfaction with the new archetype	Partial satisfaction with the new archetype	Partial satisfaction with the new archetype
Value Commitment	Competitive (reformative top managers vs. others' status quo)	Reformative	Reformative	Reformative
Power Dependences	Concentrated in lower levels trying to slow down change	Diffused within the Department External resistance (Finance Office)	Diffused within the Department External resistance (other Departments)	Diffused within the Department and the Audit Office External resistance (other Departments)
Technical Capabilities	Low and dispersed within the Department	Low and dispersed within the Department Moderated in the newly appointed departmental controllers	Low and dispersed within the Department Moderated in the newly appointed departmental controllers	Low and dispersed within the department Moderated in the newly appointed departmental controllers
Leadership	Transformational and symbolic	Transformational and symbolic	Transformational and symbolic	Transactional and symbolic

Figure 6 – Intra-organizational dynamics in E Town's Environment

Environment Department in E Town				
Variable/Years	1995-98	1999-2002	2003-2006	2007-08
Accounting change	Corporate Business plan and related financial and strategic objectives/measures SAP corporate introduction Project City 97 reorganization and departments amalgamation	ISO system first attempts for Water and Waste Management	ISO system certification for Water and Waste Management ISO system first attempts for the other branches and areas (still ongoing)	Finance function decentralization SAP non-financial integration and reporting First more structured link personnel objectives and targets-pay for the equipment branch Stop to the corporate business plan, the Department stops as well
Interest Satisfaction	Dissatisfaction with the new archetype (e.g. SAP)	Dissatisfaction with the new archetype (embodied by ISO) Only top managers and leaders are	Dissatisfaction with the new archetype	Increasing satisfaction with the new archetype

		satisfied		
Value Commitment	Status quo	Competitive (reformative top management and leaders vs. others' status quo)	Competitive reformative top management and leaders vs. others' status quo)	Reformative
Power Dependences	Concentrated in top management. Those resisting have to comply at least formally	Concentrated in top management Those resisting have to comply at least formally	Concentrated in top management Those resisting have to comply at least formally	Concentrated in top management Those resisting have to comply at least formally
Technical Capabilities	High and dispersed	High and dispersed	High and dispersed	High and dispersed
Leadership	Transactional and symbolic	Transactional and symbolic	Transactional and symbolic	Transformational and symbolic

Figure 7 – Intra-organizational dynamics in C Town's Environment

Environment Department in C Town				
Variable/Years	**1995-98**	**1999-2002**	**2003-2006**	**2007-08**
Accounting change	Corporate Business plan and related financial and strategic objectives/measures	Corporate integrated IT system (HR, accounting and finance) Infra annual financial report (3 times per year) Corporate reorganization	Recentralization of the finance function Control systems update (risk management) Long range planning: i) water efficiency plan, ii) storm strategy (10 year program requiring money) driven by regulatory changes Department reorganization: construction group integration First 3 year budget (operating) Identification of strategic and process responsibilities Corporate PMs restructuring Development of specific departmental PMs for operational and customer purposes (they didn't know some already existing, 160 ratio now) Deputy owners	First 3 year budget (capital) Budget monitoring and reporting systems (by activity) with immediate online update and fully accessible within the department. SPL software (tracking work on the field) introduction Department reorganization: from functional model on services (waterworks and wastewater to water services and resources).
Interest Satisfaction	Dissatisfaction with the new archetype	Dissatisfaction with the new archetype	Partial satisfaction with the new archetype (managers against measures and recentralization vs. satisfied staff)	Partial satisfaction with the new archetype
Value Commitment	Competitive	Competitive	Competitive	Reformative
Power Dependences	Concentrated in top management (power over knowledge and hierarchical power)	Concentrated in top management (power over knowledge and hierarchical power)	Concentrated in top management (power over knowledge and hierarchical power) Those resisting have to leave	Concentrated in top management (power over knowledge and hierarchical power) Those resisting have to leave
Technical Capabilities	High and dispersed, differentiated in focus between accounting and	High and dispersed, differentiated in focus between accounting and	High and dispersed, differentiated in focus between accounting and	Medium and dispersed

	operational people	operational people	operational people	
Leadership	Transactional and symbolic	Transactional and symbolic	Transformational and symbolic	Transformational and symbolic

Figure 8 – Intra-organizational dynamics in G Town's Environment

Environment Department in G Town				
Variable/Years	**1995-98**	**1999-2002**	**2003-2006**	**2007-08**
Accounting change	Integrated corporate accrual accounting system Corporate EMP by objectives (pre-existing manual system, cash based focus) Corporate personnel evaluation (pay-related) on results	Corporate management control systems and Internal Audit office Corporate management control and cash based accounting decentralization ISO 9001 Certification Link btw the ISO 9001 system and the EMP	Mayor's Strategic Plan Corporate Cost accounting (on standard costs, real costs) Corporate dashboard: six month performance reporting (direct and indirect costs per area and service, demand monitoring, efficiency and effectiveness indicators)	Corporate Accrual accounting decentralization New Corporate Strategic Plan by objectives and year by year investments First structured link among strategic guidelines, budget and objectives 2008 First "Air quality" strategic plan
Interest Satisfaction	Dissatisfaction with the new archetype	Dissatisfaction with the new archetype	Satisfaction with the new archetype	Satisfaction with the new archetype
Value Commitment	Status quo	Status quo	Reformative	Reformative
Power Dependences	Concentrated in Finance Office Resistance within the Department	Concentrated in Audit Office and top managers	Dispersed within the Department Low resistance	Dispersed within the Department
Technical Capabilities	Moderate and dispersed	High and dispersed	High and dispersed	High and dispersed
Leadership	Transformational and symbolic	Transformational and symbolic	Transformational and substantive	Transformational and substantive

Figure 9 – Intra-organizational dynamics in T Town's Environment

Environment Department in T Town				
Variable/Years	**1995-98**	**1999-2002**	**2003-2006**	**2007-08**
Accounting changes	Pre-existing corporate personnel evaluation (pay-related) on specific results and objectives Corporate reorganization by divisions Corporate ex-post accrual accounting Corporate EMP by objectives	Corporate management control systems (first experiments in 1980) and Internal Audit office Corporate management control and cash based accounting decentralization	Corporate Social Reporting Corporate Cost accounting by service area on cash based accounting information Customer-based service catalogue	Corporate "File data" (monitoring of service costs, customers, expenditures, etc.)
Interest Satisfaction	No satisfaction nor dissatisfaction with the new archetype	No satisfaction nor dissatisfaction with the new archetype	No satisfaction nor dissatisfaction with the new archetype	No satisfaction nor dissatisfaction with the new archetype
Value Commitment	Indifferent	Indifferent	Indifferent	Indifferent
Power Dependences	Concentrated in politicians Low resistance due to low involvement	Concentrated in politicians and top management	Concentrated in politicians and top management	Concentrated in politicians and top management

		Low resistance due to low involvement	Low resistance due to low involvement	Low resistance due to low involvement
Technical Capabilities	Low and dispersed	Low and dispersed	Low and dispersed	Low and dispersed
Leadership	Transactional and symbolic	Transactional and symbolic	Transactional and symbolic	Transactional and symbolic

Figure 10 – Intra-organizational dynamics in E Town's Public Infrastructures

Infrastructures Department in E Town				
Variable/Years	**1995-98**	**1999-2002**	**2003-2006**	**2007-08**
Accounting changes	Corporate Business plan and related financial and strategic objectives/measures SAP corporate introduction Transportation Masterplan Project Management Guidelines for Road construction Project City 97 reorganization and departments amalgamation	Drainage ISO certification	Drainage revision of PMs (cost analysis)	Finance function decentralization SAP non-financial integration and reporting Pacman software introduction Stop to the corporate business plan, the department goes on by its own Initial stage of non-financial PMs development Departmental responsibility reorganization Project management introduction for capital planning
Interest Satisfaction	Dissatisfaction with the new archetype	Satisfaction with the new archetype	Dissatisfaction with the new archetype	Partial dissatisfaction with the new archetype
Value Commitment	Status quo	Status quo	Competitive	Reformative
Power Dependences	Concentrated at the low/technical levels (that have also the power to resist)	Concentrated at the low/technical levels (that have also the power to resist)	Concentrated at the low/technical levels (that have also the power to resist)	Concentrated at the low/technical levels (that have also the power to resist)
Technical Capabilities	High and dispersed for technical issues Low and dispersed for strictly managerial and corporate driven systems	High and dispersed for technical issues Moderate and dispersed for strictly managerial and corporate driven systems	High and dispersed for technical issues Low and dispersed for strictly managerial and corporate driven systems	High and dispersed for technical issues Moderate and dispersed for strictly managerial and corporate driven systems
Leadership	Transactional and symbolic	Transformational and symbolic	Transformational and symbolic	Transformational and substantive (based on knowledge)

Figure 11 – Intra-organizational dynamics in C Town's Public Infrastructures

Infrastructures Department in C Town				
Variable/Years	**1995-98**	**1999-2002**	**2003-2006**	**2007-08**
Accounting changes	Almost 30 years ago: infrastructure PMs, payment quality index tracking service conditions of city constructions (puddle per km, new residential units per	Corporate integrated IT system (HR, accounting and finance) Infra annual financial report (3 times per year)	Recentralization of the finance function Control systems update (risk management) Structured but not complete inventory	First 3 year budget (capital) From historical cash-based budget to a Zero Based Budgeting for capital budget Accrual accounting asset depreciation

	population, number of building permits issued per population, construction value of total building permits issued per capita, etc.). Corporate Business plan and related financial and strategic objectives/measures PMs on customer based measures and expectations on the service. Link btw performance appraisal (objectives and indicators) and recognition programs	Corporate reorganization	for roads and large infrastructures Infrastructure strategic report First 3 year budget (operating) Corporate PMs restructuring Deputy owners	from CCAA and PSAB Construction record building, economic analysis on inflation trend First structured link among performance target and business plan Infrastructure cost analysis with RIVA (real time infrastructure valuation analysis) like life cycle analysis and reporting
Interest Satisfaction	Dissatisfaction with the new archetype	Dissatisfaction with the new archetype	Dissatisfaction with the new archetype	Dissatisfaction with the new archetype
Value Commitment	Indifferent	Status quo	Status quo	Status quo
Power Dependences	Concentrated in Finance Office, City manager and GM	Concentrated in Finance Office, City manager and GM Resistance by other levels by blocking the process	Concentrated in Finance Office, City manager and GM Resistance by other levels by blocking the process (recentralization)	Concentrated in Finance Office, City manager and GM
Technical Capabilities	High and dispersed for technical issues Low and dispersed for strictly managerial and corporate driven systems	High and dispersed for technical issues Low and dispersed for strictly managerial and corporate driven systems	High and dispersed for technical issues Low and dispersed for strictly managerial and corporate driven systems	High and dispersed for technical issues Low and dispersed for strictly managerial and corporate driven systems
Leadership	Transactional and symbolic	Transactional and symbolic	Transactional and symbolic	Transactional and symbolic

Figure 12 – Intra-organizational dynamics in G Town's Public Infrastructures

Infrastructures Department in G Town				
Variable/Years	**1995-98**	**1999-2002**	**2003-2006**	**2007-08**
Accounting changes	Pre-existing compulsory PMs (sector specific regulation) Integrated corporate accrual accounting system Corporate EMP by objectives Corporate personnel evaluation (pay-related) on results	Corporate management control systems and Internal Audit office Corporate management control and cash based accounting decentralization Triennial and Annual investment Plans Structured link btw Triennial Plan and EMP GULP software introduction (monitoring system for public works advancement, time and phases)	Mayor's Strategic Plan Stop to the link btw Triennial Plan and EMP Corporate Cost accounting (on standard costs, real costs) Corporate dashboard: six month performance reporting (direct and indirect costs per area and service, demand monitoring, efficiency and effectiveness indicators)	Project files introduction (financial and work advancement reporting) Corporate Accrual accounting decentralization New Corporate Strategic Plan by objectives and year by year investments
Interest Satisfaction	Dissatisfaction with the new archetype	Dissatisfaction with the new archetype	Dissatisfaction with the new archetype	Dissatisfaction with the new archetype
Value	Indifferent	Competitive (director manager shows	Status quo	Status quo

Commitment		status quo vs. operative people who try to link Triennial Plan and EMP)		
Power Dependences	Concentrated outside the Department (politicians and Finance Office) Resistance from departmental managers for technical issues	Concentrated outside the Department (City manager and politicians) Resistance from departmental managers for technical issues	Concentrated in City and top managers Resistance from departmental managers for technical issues	Concentrated outside the Department (City manager and politicians) Resistance from departmental managers for technical issues
Technical Capabilities	High and dispersed for technical issues High and concentrated in the controller for strictly managerial and corporate driven systems	High and dispersed for technical issues High and concentrated in the controller for strictly managerial and corporate driven systems	High and dispersed for technical issues High and concentrated in the controller for strictly managerial and corporate driven systems	High and dispersed for technical issues High and concentrated in the controller for strictly managerial and corporate driven systems
Leadership	Transactional and symbolic	Transactional and symbolic	Transactional and symbolic	Transactional and symbolic

Figure 13 – Intra-organizational dynamics in T Town's Public Infrastructures

Infrastructures Department in T Town				
Variable/Years	**1995-98**	**1999-2002**	**2003-2006**	**2007-08**
Accounting Changes	Pre-existing corporate personnel evaluation (pay-related) on specific results and objectives Corporate reorganization by divisions Corporate ex-post accrual accounting Corporate EMP by objectives Triennial and annual public infrastructures plans Public infrastructures and work advancement monitoring system (monthly) and related resource bookkeeping	Corporate management control systems (first experiments in 1980) and Internal Audit office Corporate management control and cash based accounting decentralization Technical office (within the Pub. Infr. Department) for activity monitoring, random technical and financial compliance check, training, support and communication Link btw the management control system and the public infrastructure control on technical and financial compliance	Corporate Social Reporting Corporate Cost accounting by service area on cash based accounting information	Corporate "File data" (monitoring of service costs, customers, expenditures, etc.)
Interest Satisfaction	Not satisfied nor dissatisfied with the new archetype	Not satisfied nor dissatisfied with the new archetype	Not satisfied nor dissatisfied with the new archetype	Not satisfied nor dissatisfied with the new archetype
Value Commitment	Indifferent	Indifferent	Indifferent	Indifferent
Power Dependences	Concentrated in Financial and Audit Offices and director manager	Concentrated in Audit and Technical Offices and director manager Low resistance to control on compliance and inspections	Concentrated in Technical office and director manager	Concentrated in the Technical office and the director manager
Technical Capabilities	High and dispersed for technical issues Low and dispersed for strictly managerial and corporate driven systems	High and dispersed for technical issues Low and dispersed for strictly managerial and corporate driven systems	High and dispersed for technical issues Low and dispersed for strictly managerial and corporate driven systems	High and dispersed for technical issues Low and dispersed for strictly managerial and corporate driven systems

| Leadership | Transactional and symbolic | Transactional and symbolic | Transactional and symbolic | Transactional and symbolic |

Figure 14 – Intra-organizational dynamics and patterns of the process of change: a summary

Pattern of the process	Intra-organizational dynamics		Outcome of change
Disruptive	*Interest Satisfaction*	Satisfaction with the new archetype	Radical
	Value Commitment	Reformative or competitive	
	Power Dependences	Dispersed	
	Technical Capabilities	High and dispersed	
	Leadership	Transformational and substantive	
Sedimented	*Interest Satisfaction*	Satisfaction with the new archetype	Radical
	Value Commitment	Reformative	
	Power Dependences	No pattern	
	Technical Capabilities	High and dispersed	
	Leadership	Transformational and symbolic	
Disruptive	*Interest Satisfaction*	Dissatisfaction with the new archetype	Incremental
	Value Commitment	No pattern	
	Power Dependences	No pattern	
	Technical Capabilities	No pattern	
	Leadership	Transformational or transactional and symbolic	
Sedimented	*Interest Satisfaction*	Dissatisfaction with the new archetype	Incremental
	Value Commitment	No pattern	
	Power Dependences	Concentrated	
	Technical Capabilities	No pattern	
	Leadership	Transactional and symbolic	
Disruptive	*Interest Satisfaction*	Neither satisfied nor dissatisfied with the new archetype	No change
	Value Commitment	Indifferent	
	Power Dependences	Concentrated	
	Technical Capabilities	Low and dispersed	
	Leadership	Transactional and symbolic	
Sedimented	*Interest Satisfaction*	No pattern	No change
	Value Commitment	Reformative	
	Power Dependences	Concentrated	
	Technical Capabilities	High or low and dispersed	
	Leadership	Transactional and symbolic	

Table 3 - Emerging variables affecting accounting change: levels and examples

	Communication	Personal characteristics	Actual participation
Social Services			
E Town	High B: "*We didn't communicate with our staff very well. So in our business plan we said we wanted to have a better communication with the staff as one of our strategies, so there are a number of projects about creating internal websites, newsletters, etc.*"	Openess to change (+) Age (-)	High W: "*There would be definitely some ideas coming from the top, but the strategic branch and the people who are really doing the work, they're doing research and looking at other countries and other municipalities to see what they are measuring and if it could be good for as*"
C Town	Low M: "*Sometimes you may still need the information, but if you are very busy because of the shortage of labor force, you may not have the time*"	-	Low (only top management) J: "*I would say that decisions had already been made…*"
G Town	High F: "*We arranged a lot of meetings with the director and the Finance Office to spread the change and work together with those directly involved: the accountants*"	Openess to change (+)	High M: "*Participation is more and more increasing. But it's natural, you need to run things in!*"
T Town	Moderate (mainly formal) A: "*We received a lot of directions from the center. The Finance Office didn't like our financial reporting, but here everyone had the need to know the data…*"	Openess to change (+)	Moderate E: "*Differently from the corporate tools, everyone got involved in the development of the quality system*"
Environment			
E Town	Low (formal/centralized) BK: "*The communication went through newsletters and that sort of things*"	Openess to change (+) Age (-)	High (mainly mandatory) M: "*We assembled a team of people that was cross-functional inter-disciplinary team from various areas of the branch. We tried to represent everyone… Everyone had to participate, they were mandatory 100%...*"
C Town	High B: "*Communication was one of the prime objectives. We needed to have continuous communication, very honest, and be upfront with the staff. They recall this exercise during the integration: each month they are coming with "what are we at". Meetings and so on…*"	Openess to change (+)	High B: "*We do at least one survey a year and those surveys are essential to highlight this and that… We had technical comments on wrong measures, etc.*"
G Town	High M: "*We had frequent meetings and explained the reasons behind change. We didn't want a few people dealing with quality, we tried to reach everyone*"	Openess to change (+) Age (-)	High M: "*We didn't ask for change, we proposed it. We have continuous training, people are involved and then they send their assistants. It's spreading!*"
T Town	Low (only top management level) B: "*Until 3 years ago we had training courses, but only for top managers. Then, it's up to each top manager to involve his people*"	Openess to change (+)	Low C: "*Well, it's not for the EMP that we feel involved*"
Public			

Infrastructures			
E Town	High K: *"There is a lot of back and forth, a lot of communication in regards to how the processes are going, how it has been developed and what were the sections' needs in regards to this stage of the implementation strategy"*	Openess to change (+)	Low K: *"They didn't participate because they had other priorities"*
C Town	Low W: *"The other problem is the communication gap sometimes because of the parallel things. Even top vs. bottom!"*	Age (-)	Low S: *"A lot of the business plan exercise actually occurred only at high people level. I started working at that building, I accessed for consultation. The guys who create the budget at the bottom go to the director who is not who actually do the capital budgeting"*
G Town	-	-	Moderate (mainly top management and in a reactive mode) M: *"We set the ISO systems. For the monitoring we plan to arrange meetings on specific projects"*
T Town	Low (formal only) B: *"The Technical Office has an important role of training and informing people, mostly about law changes"*	Age (-)	Low (only top management) B: *"The EMP involves only top management... In our activity sometimes observations can arrive also from the lower level, but it doesn't happen not that often for accounting systems"*

Appendix

Intra-organizational dynamics: examples of quotes and categories

Table 1 - Social Services Department in E Town

Variable/Years	1995-98	1999-2002	2003-2006	2007-08
Interest Satisfaction	Dissatisfaction with the new archetype MG: "*At the beginning they preferred old PMs, they felt no need to change and went on as usual. There is considerable resistance when we go into the change because people liked what they were putting on before, we come our own way!*"	Dissatisfaction with the new archetype MG: "*There were fears to be controlled and to lose the job, although the changes worked in the end*" W: "*They slowed down the introduction process*"	Satisfaction with the new archetype B: "*There was an improved satisfaction after ideas sharing and understanding. Managers are satisfied because it starts working and also bad performances are public and discussed*"	Dissatisfaction with the new archetype (due to the implemented systems) MG: "*In the last period they were dissatisfied again with the new systems because they were unconnected and untimely*"
Value Commitment	Competitive (reformative top management vs. indifferent others) MG: "*Only some top managers were committed to change, propose and solve information needs at the beginning, such us the GM of the Department who is now working as deputy of the city Manager. IT managers were also very committed to Class, going outside to take successful examples and then share them within the department. While SAP was felt by people as an imposed tool of the Finance Office*"	Competitive (reformative top management vs. indifferent others) W: "*Some people were very willing to jump especially if it involved the budget, while others were too busy, in a reactive mode, just taking care of problems and day by day activities*"	Reformative MG: "*Now they understand the value and the new ideas. They feel involved and propose*"	Reformative MG: "*Now they understand the value and the new ideas. They feel involved and propose*"
Power Dependences	Concentrated in Council, top managers and IT people (power over knowledge, meanings and information) Resistance for age, perceived loss of control over information or increased responsibilities. MG: "*The business plan directly depended on the city Council vision. The other one leading the process was our general manager. She had the vision at that time in regards to aligning our performance measurements with our strategic initiatives. I would say it was driven from the top down by our general manager*"	Concentrated in council, top managers and IT people (power over knowledge, meanings and information) Resistance for age, perceived loss of control over information or increased responsibilities. MG: "*Our GM had a really strong leadership in regards to the importance of having a vision, having a real strong mandate and having performance measurement. She started truly with what we call the senior management of community services, so she worked with them in regards to the importance of having a strong understanding and*"	Dispersed (power over knowledge, meanings and information) MG: "*There is limited reflection on who's got the power and the resource to be able to make change happen. Change was often seen as a top down kind of initiative. I think if people would work out, reflect on before they started: "who are the key people that I need to involve? Who have the power to make change happen?" In many cases it's not senior management and often that's what happens. They may have a final authority to approve initiatives, but they're not the change agents*"	More and more dispersed as power over knowledge, meanings and information increases throughout the Department B: "*When they made reporting available to the staff, the people said "hey, how come that our injury rate is going up? Why don't we do something about it?" And they put the pressure on the leaders*"

	W: "*The group is mainly supervisors that are located at the facility. So There was an understanding at the supervisors' level and at the ultimate supervisors that are centrally located. The super users are the ones who understand the interface between Class and SAP*"	*vision.* *There was resistance, because people really thought "I'm losing my abilities as an individual business operator to create my own system and see my customers""*		
Technical Capabilities	High and dispersed (IT and staff) MG: "*As far as I'm aware we've always been responsible in regards to developing performance measurement and business plan. They are tied out as staff members at the very front level and then grow up and progress within the system… often people that have many years of experience with the corporation. It's interesting how within our corporation in the past we were very much kind of led by the IT people*" W: "*There has been big training when new modules have been brought on and there is the big push (SAP)*"	High and concentrated (leaders) B: "*We didn't really have training courses with the staff on what performance measurements mean. We left that to the management of the branches, more informal*"	High and concentrated (IT and leaders) B: "*We didn't really have training courses with the staff on what performance measurements mean. We left that to the management of the branches, more informal*" W: "*More energy should be put towards the training and to get people going. From a system perspective it's not been done a good job at all*"	High and concentrated (IT and leaders) B: "*We didn't really have training courses with the staff on what performance measurements mean. We left that to the management of the branches, more informal*" W: "*More energy should be put towards the training and to get people going. From a system perspective it's not been done a good job at all*"
Leadership	Transformational and symbolic GM Transformational and substantive IT people MG: "*Our GM had the vision at that time in regards to aligning our performance measurements with our strategic initiatives. I would say it's more just her own personal vision, her own personal quest and knowledge that it needed to be done.* *There were the IT people that had the real passion and understanding not only of IT, but the business world and how it would benefit the department and the customers. You got those who had the power and the ability to make change happen and together we created that change. They would do a significant research in regard to the benefit in using that particular software, and very try to understand from our business*	Transformational and symbolic GM Transformational and symbolic for some top managers (e.g. manager B) MG: "*Our GM had the vision at that time in regards to aligning our performance measurements with our strategic initiatives*" B: "*At that time there was no regular reporting framework or performance measure within our department. So I was the one hired for creating that reporting framework.* *Part of the way we addressed that was to make sure that the staff and the branches were involved*"	Transformational and symbolic GM Transformational and symbolic for some top managers (e.g. manager B) B: *I met our GM and said "these measures are the ones for all the staff of fire rescue… we're gonna put these 2 forward". Then she asked "what other information do you have?" I said "we have the whole report". And she was surprised she hadn't really seen this before because we give them to the branch managers and they would use them however they want to use them*"	Transformational and substantive (e.g. manager B) Change in the GM B: "*If all you ever do is saying "your responses are bad", you beat on people, you're not gonna achieve anything even if you are the boss!*"

Variable/Years	1995-98	1999-2002	2003-2006	2007-08
	perspective how it would make us more efficient and more effective and better serving the citizens"			

Table 2 - Social Services Department in C Town

Variable/Years	1995-98	1999-2002	2003-2006	2007-08
Interest Satisfaction	Dissatisfaction with the new archetype M: *"There was some fault in the system. This is the system we decided with the consultant and the package we bought. You have to pay the price to customize it and add control, but it costs and is going to leak"*	Dissatisfaction with the new archetype J: *"I would say often the decision had already been made at a very high level, and then it rolled out. And there were many people "ho this is now… it doesn't do this and that!" I dare say we should have a discussion about this. If some of those things had come out before, they might have changed"*	Partially satisfied with the new archetype M: *"All the finance staff had been supporting and pushing for this now happening. This is a change involving a lot of people, they were supporting centralizing the function"* J: *"I find the quarterly updates and the annual reviews sometimes make work. Particularly on a quarterly basis, because things don't change that quickly. The change to a 3-year budget has been a positive change all the way down from the city council. They used to spend 2 weeks and you spent 2 days answering questions and you had to prepare"*	Partially satisfied with the new archetype J: *"I find the quarterly updates and the annual reviews sometimes make work. Particularly on a quarterly basis, because things don't change that quickly. The change to a 3-year budget has been a positive change all the way down from the city council. They used to spend 2 weeks and you spent 2 days answering questions and you had to prepare"*
Value Commitment	Competitive (reformative accounting vs. status quo operational people) J: *"The finance people said "you can get it!" There was that problem with a lot of these changes, I don't think there was a good understanding of the end users and how they work. They were designed and implemented by people who don't do the daily activities"*	Competitive (reformative accounting vs. status quo operational people) J: *"Many of the changes happened as a result of the 2000 corporate-wide reorganization. There was a bit of input, but I would say not much. A lot of it at the end of the day was "this is how it's gonna be"*	Reformative (operational people revise and start appreciating PMs, although they don't always know how to use them) M: *"All the finance staff has been supporting and pushing for this now happening"* J: *"We're really trying to move toward an outcome based performance review"*	Reformative (operational people revise and start appreciating PMs, although they don't always know how to use them) M: *"All the finance staff has been supporting and pushing for this now happening"* J: *"We're really trying to move toward an outcome based performance review"*
Power Dependences	Concentrated in corporate managers and GM (power over resource, decision making and information) M: *"The financial statement used to be decided by the finance manager and the GM"*	Concentrated in corporate managers and GM (power over resource, decision making and information) J: *"Every business had its own finance people and I had a much better understanding of the financial situation in my business than I do now. Then they've taken functions, they said "ok, we're taking all the accounts receivables, invoices and this little group is gonna do it; and this little group is*	Concentrated in top managers and GM (power over resource, decision making and information) M: *"The only levels that have to sign on the financial statement are the GM, the director of the business unit, the finance manager and finance team of both the process and the strategic group"*	Concentrated in top managers and GM (power over resource, decision making and information) M: *"With the recent changes, a lot of responsibilities have actually shifted back to top managers. For example, if you want to look at some of those monthly reports, he might be expected to run the report himself"*

		gonna do the payables; and corporately we're gonna have finance managers who take that information as a bit of a bigger picture and communicate that back""		
Technical Capabilities	High and dispersed J: "*There were PMs when I joined the city (more than 20 years ago), such as number of services delivered, number of clients, but it was very sort of input/output. People had already seen them*"	High and concentrated M: "*for the changes in the corporate system, we spent a bunch of people of the departmental financial and the HR systems and trained them. They went to classroom, one day and half of training... They've done training*"	High and concentrated J: "*In 2000 for community services there was business planning team to do performance measures, reporting... in certain cases we also had the expertise to be able to do certain things. That capacity does not exist across the corporation at the same level that it did back then*"	High and concentrated J: "*I started training, but even in my case, u did some training, but because you are not using it everyday you forget it. And you can't keep repeating the training, it's just too much work. So you don't use the new systems. I think there is much more information available to me now, but personally I have much less knowledge of the financial work in my program area than I did 10 years ago*"
Leadership	Transactional and symbolic (centralized, top down and imposed) M: "*The switch was taken up by the financial and the HR department. Everything came from a corporate basis*"	Transactional and symbolic (centralized, top down and imposed) M: "*Decisions were pretty much made at a high level. And then yes, we've got input problems... all happen in theory...*"	Transactional and symbolic (centralized, top down and imposed) J: "*The movement to PMs, it was the guy who went out and tried to sell and help people on a case by case basis to develop PMs. He was the centralized knowledge base. His mission over a number of years was to keep going around and building capacity for people to develop PMs. He was sent centrally*"	Transactional and symbolic (centralized, top down and imposed) J: "*The movement to PMs, it was the guy who went out and tried to sell and help people on a case by case basis to develop PMs. He was the centralized knowledge base. His mission over a number of years was to keep going around and building capacity for people to develop PMs. He was sent centrally*"

Table 3 - Social Services Department in G Town

Variable/Years	1995-98	1999-2002	2003-2006	2007-08
Interest Satisfaction	Satisfaction with the new archetype F: "*No one opposed change. It was imposed by law. Moreover, they were all glad to increase their responsibilities and to have an adequate accountability tool. It has been seen as a way to make procedures feaster*"	Satisfaction with the new archetype M: "*We actually monitored broadly to look at expenses. We look at outputs, quantities, but not quality. We felt that as very helpful*"	Partial satisfaction with the new archetype M: "*We didn't have people really happy for the cost accounting system. I would say they were critical*" EMP objectives don't really picture our activities, they focus on strategic matters. Then we have, and we are really satisfied with them, the social service reports. It's very important to us!"	Partial satisfaction with the new archetype M: "*We developed the technical reports because we needed them. They are useful. While accreditation is perceived as a danger. It put in danger the previous relationships we had with our service providers. They felt controlled now*"
Value Commitment	Reformative M: "*We had already tried to introduce managerial tools also in the early*	Reformative F: "*It's better to change! It was better than the immobility we had during the*	Competitive (reformative with departmental systems vs. status quo with corporate ones)	Competitive (reformative with overall departmental systems vs. vs. status quo with accreditation)

	Nineties!"	*Eighties! It increased our awareness of what we were doing"*	M: "*The leading feeling was: either we use in the right way the new social service reports, or if it has to be another load, it's useless! Thus we didn't make it compulsory. Nevertheless, participation is more and more increasing. With the cost accounting system our ideas was "ok, I'm not against it, but I'm not going to do anything to support it!"*	M: "*We developed the technical reports because we needed them. They are useful. While accreditation is perceived as a danger. It put in danger the previous relationships we had with our service providers. They felt controlled now"*
Power Dependences	Concentrated in politicians and Finance Office M: "*We had to negotiate and contend with the Finance Office when introducing the changes, because they touched financial resources control, of course"* F: "*At the beginning it was all in politicians' hands. Then change brought role distinction, that was positive. We had no objectives. Everything was political. We worked a lot with the Finance Office"*	Concentrated in Audit Office and City manager F: "*The corporate Auditor was the champion of change. All the others just followed her and the City manager. We didn't complain because we were complying with law requirements"*	Dispersed at the departmental level (operational people and managers emerge on knowledge basis) M: "*The identification of PMs was a hard job. Operational people really felt to be judged on that. But they knew the subject. We developed everything through participation and idea sharing. We continuously revised them. It was a delicate tool. There was a group in the end with the specific task to strengthen that kind of functions"*	Dispersed at the departmental level (operational people and managers emerge on knowledge basis) No one is able alone to hinder change (see accreditation) M: "*Recently we got a new Information system director who takes particular care of communication and data interpretation. All people are involved in taking decisions"*
Technical Capabilities	Moderate and dispersed M: "*We had already tried to introduce managerial tools also in the early Nineties!"* F: "*We had training courses with both external and corporate people. It was to comply with laws…"*	Moderate and dispersed M: "*We had already tried to develop sophisticated PMs, building on personnel costs. But our activities are so different, it was difficult"*	High and dispersed M: "*Each area worked with a group of operative people (the disabilities expert, the elderly expert, etc.) … so we had a picture of all needs and all customers. We developed our monitoring tools by sharing these common ideas. We specifically focused on people's cultural change"*	High and dispersed M: "*Also for accreditation: we created teas of auditors, already operating in the social services. They developed the specific indicators..."*
Leadership	Transformational and symbolic F: "*We arranged a lot o f meetings with the Finance Office and the director to cooperate. Also operative people were involved by the higher levels"*	Transformational and symbolic F: "*The corporate Auditor was the champion of change. All the others just followed her and the City manager. We didn't complain because we were complying with law requirements. The hard part was to involve and commit lower employees. We managed by working together with them!"*	Transformational and substantive (bases on meanings and technical knowledge) M: "*Each area worked with a group of operative people (the disabilities expert, the elderly expert, etc.) … so we had a picture of all needs and all customers. We developed our monitoring tools by sharing these common ideas. The idea for change rose from our operational people. Social reports were*	Transformational and substantive (based on meanings and technical knowledge) M: "*Recently we got a new Information system director who takes particular care of communication and data interpretation. All people are involved in taking decisions"*

			one of their needs to monitor service delivery"	

Table 4 - Social Services Department in T Town

Variable/Years	1995-98	1999-2002	2003-2006	2007-08
Interest Satisfaction	Dissatisfaction with the new archetype A: "*As for all new things, there was a bit of resistance. They didn't understand the reasons to change. We initially issued reports that were systematically ignored. The EMP was not timely. The strongest contestation was for the performance appraisal system. They asked to leave. We even had arguments for positive evaluation, for which the score wasn't high enough!"*	Dissatisfaction with the new archetype E: "*For the EMP there was an early optimism, then it fell. It was something new and we thought it could change a lot. But the actual use made it useless. When introducing the quality system we had two main difficulties: the old cultural approach "if you are doing something good for people, it doesn't matter how you do it"; and the lack of adequate tools to be accountable on such relational services. Those who were unsatisfied just paid little attention and time…"*	Partial satisfaction with the new archetype E: "*On the one hand change increased the overall workload, on the other hand it made work easier because people in the end were able to read these reports without calling us each time"*	Partial satisfaction with the new archetype A: "*We still have difficulties in gathering data. We depend on other Departments.. The "file data" was elaborated by the center. They are still working on it because it was too detailed and it was hard to customize. We were poorly involved, although it wasn't seen as a control tool, but rather as a possible useful new tool, I have to admit"* F: "*The social plan found initial resistance because they thought of it as the alderman's tool"*
Value Commitment	Competitive (reformative top managers vs. others' status quo) A: "*Before 1999 departmental reporting was done every 2/3 years. Controls weren't so accurate. We tried to make it more structured and precise, especially for European Funds. It was hard to change people's mentality, to look beyond the number. It didn't change completely"*	Reformative E: "*The quality systems was an operational people's idea. It's still changing, it's a long process! One of our top managers supported a specific research project. It derived from a diffused feeling. The City manager also pushed for a quality system throughout the corporation, but it was a formalization of what we were already doing…"*	Reformative A: "*Our Department was very sensitive to expenditures measures and cost accounting. We needed it and we felt committed. To know service costs is fundamental"*	Reformative F: "*Managers were happy with the new plan, they were personally involved. Everyone in the Department participated"*
Power Dependences	Concentrated in lower levels trying to slow down change A: "*The greatest resistance came from those directly involved, the lower levels. They didn't like the performance appraisal system. It was new and they perceived it as a form of control. They didn't like being evaluated by their boss, we had arguments…"*	Diffused within the Department External resistance (Finance Office) A: "*Another top manager and I decided to introduce the expenditures reporting. We realized it was too difficult to manage them. We tried to find a way to better understand our legislative budget. The Finance Office didn't like the reports. They were expecting the traditional reporting, while we analyzed expenditures by services"* E: "*The quality systems was an*	Diffused within the Department External resistance (other Departments) E: "*The resistance we had came from external Departments. The Asset Management for example. It was hard to gather the data on expenditures and customers… It's not a need they perceive"*	Diffused within the Department and the Audit Office External resistance (other Departments) A: "*We still have difficulties in gathering data. We depend on other Departments.. The "file data" was elaborated by the center. They are still working on it because it was too detailed and it was hard to customize. We were poorly involved. Only at the end of the process, to identify some indicators…"* E: "*It's still hard to gather data from*

		operational people's idea. It's still changing, it's a long process! One of our top managers supported a specific research project. It derived from a diffused feeling. The City manager also pushed for a quality system throughout the corporation, but it was a formalization of what we were already doing…"		*other Departments…"*
Technical Capabilities	Low and dispersed within the Department A: *"We developed the EMP and the first expenditures reports together. It's not easy to understand the legislative budget and we didn't have training courses…"*	Low and dispersed within the Department Moderated in the newly appointed departmental controllers A: *"Some really liked the final reports we issued. It depended on their understanding of the budget items"* E: *When introducing the quality system we had two main difficulties: the old cultural approach "if you are doing something good for people, it doesn't matter how you do it"; and the lack of adequate tools to be accountable on such relational services. It's hard even today…"*	Low and dispersed within the Department Moderated in the newly appointed departmental controllers A: *"The most complicated data are those related to cost areas. They help, but they usually arrive late. We have to call and hurry people. It takes time for them"*	Low and dispersed within the department Moderated in the newly appointed departmental controllers A: *"The most complicated data are those related to cost areas. They help, but they usually arrive late. We have to call and hurry people. It takes time for them"*
Leadership	Transformational and symbolic A: *"When we decided to introduce the new tools we arranged many meetings to agree on the most effective and simple design. I was something new, we all had to study, even top managers"* E: *"I usually used to pass an internal regulation to point out what would be object of performance appraisal…"*	Transformational and symbolic A: *"Another top manager and I decided to introduce the expenditures reporting. We realized it was too difficult to manage them. We tried to find a way to better understand our legislative budget. The Finance Office didn't like the reports. They were expecting the traditional reporting, while we analyzed expenditures by services. Our department felt this monitoring need so there was involvement…"*	Transformational and symbolic A: *"We tried to explain the purpose of the new reporting, that I could be useful for everyone: to lower level to work better and to top managers to understand expenditures. They didn't know then precisely before. We tried to coordinate different internal needs. In the end also the attention towards revenues increased a little"*	Transactional and symbolic A: *"The "file data" was elaborated by the center. They are still working on it because it was too detailed and it was hard to customize. We were poorly involved. Only at the end of the process, to identify some indicators…"* F: *"The alderman tried to involve everyone on the social plan"*

Table 5 - Environment Department in E Town

Variable/Years	1995-98	1999-2002	2003-2006	2007-08
Interest Satisfaction	Dissatisfaction with the new archetype (e.g. SAP) BK: "*They took over all the computer system that we had specific to the area, and they introduced one giant system that was managed by everybody in the same way. When I came through, a lot of people had systems they appreciated for what they needed to do, while the new system only do 80%*"	Dissatisfaction with the new archetype (embodied by ISO) Only top managers and leaders are satisfied BK: "*I look down at the whole system and what everyone is doing, I can see how everything works together, but people who are doing their part here and there… we had a really hard time, also recently. People don't understand how they fit into the system and why what they are doing is important*"	Dissatisfaction with the new archetype A: "*That wasn't the culture they were used to, it's always something that you have to work with people*" M: "*Here is the huge paperwork component: making sure that you're getting ready for the audit and everything is auditable. You cant just do something: you got a plan, you have to write it down, you have to plan arrangements…*"	Increasing satisfaction with the new archetype A: "*We're finding that it's not just an isolated piece of the organization, people see value in it and it's sort of expanding and increasing the standards*" M:" *I think it's getting better and better, people perceive the value*"
Value Commitment	Status quo BK: "*They took over all the computer system that we had specific to the area, and they introduced one giant system that was managed by everybody in the same way. When I came through, a lot of people had systems they appreciated for what they needed to do, while the new system only do 80%*"	Competitive (reformative top management and leaders vs. others' status quo) BK: "*We had awesome support from our managers*" EA: "*When I think of the branch managers who were sponsoring the change, really successful, they genuinely believed in the value of the project, so that when they spoke to their employees and when they had events, it genuinely came through that they were excited about this thing.* *The managers who were less excited I would say basically they probably paid little service, they didn't make it a priority, they did what they had to do to achieve registration and things like that*"	Competitive reformative top management and leaders vs. others' status quo) EA: "*When I think of the branch managers who were sponsoring the change, really successful, they genuinely believed in the value of the project, so that when they spoke to their employees and when they had events, it genuinely came through that they were excited about this thing.* *The managers who were less excited I would say basically they probably paid little service, they didn't make it a priority, they did what they had to do to achieve registration and things like that*"	Reformative EA: "*Now you've got some sense of ownership. We see people every year are thinking "we can do this, we can do better""*
Power Dependences	Concentrated in top management. Those resisting have to comply at least formally BK: "*We complained carefully because our general manager basically said "do it!" because they knew that a lot of people didn't want to change, they had their past systems that they liked to use. So we tried to be very politically correct*	Concentrated in top management Those resisting have to comply at least formally A: "*Where the push came from was the Office of the Environment. They were the champion to look for the resources*" K: "*I was representing the branch at the corporate level and we incorporated this discussion on environmental issues that*	Concentrated in top management Those resisting have to comply at least formally A: "*Where the push came from was the Office of the Environment. They were the champion to look for the resources*"	Concentrated in top management Those resisting have to comply at least formally A: "*I think everyone recognises that they have a boss and if this is a priority of your boss, it very quickly becomes your priority. And if you know that your performance is going to be judged based on your participation and contribution…*

	behind the closed doors, but we knew that our managers weren't on, they just do it. So we didn't want to complain too much"	*we had in the branch: oh my God, they were hamming!"*		*that relationship needs to be structured. It's very helpful that people believe in the new change, that's really important"*
Technical Capabilities	High and dispersed M: "*We had a lot of training courses for SAP and I think it was enough to get everyone working on it"*	High and dispersed BK: "*We had never done it before, but we knew the theory and we know our environmental business very well, that was helpful. We had lots of environmental people in drainage staff. Basically everyone who works here has an environmental view of things, whereas in other areas they don't really have environmental wraps. We did training to make people aware of things*"	High and dispersed A: "*ISO systems certainly resulted in more environmental training, where in corporation and branches is working the best it's resulting in formal structures and management review meeting that will deal with the entire environmental management system and looking at continuous improvements"*	High and dispersed A: "*The fact that you are always changing means that it's new that means that there is probably not many people in your organization that have experience with this. It's a learning situation for everyone"*
Leadership	Transactional and symbolic BK: "*We complained carefully because our general manager basically said "do it!""*	Transactional and symbolic BK: "*It had much to do with just the way to do between myself and the branch managers, that we had a good idea and from there we just did the proposal and we set the system and went.* *And we had a great manager! But it had a lot to do with their personality too"*	Transactional and symbolic A: "*Where the push came from was the Office of the Environment. I would say that the first thing is framing whether the piece of software, whether the environmental management system, whether it's a big change in an organization, first of all you've got to have a corporate champion. People are gonna resist change because it's human nature. So you've got to have that champion and the higher level the better.* *To help that relationship this is just as a big stick, because everyone has to believe that this is gonna do the organization better and help us in achieving our objectives"*	Transformational and symbolic A: "*Three years later the same people are excited about how the management system is growing and they understand that it wasn't a project, a beginning and an end, it was a management system that will continue to get better as long as we invest in the system. It's a very long term if you want to manage this environmental risk. As soon as you realize that there is a problem, you go forward to the higher level management team and say that "here are new assumptions", that to be successful you're going to need a full time position dedicated to it"*

Table 6 - Environment Department in C Town

Variable/Years	1995-98	1999-2002	2003-2006	2007-08
Interest Satisfaction	Dissatisfaction with the new archetype P: "*It is extra work. Sometimes we disagreed on the range, because the whole system is long ranged and it takes few years to measure one data point,*	Dissatisfaction with the new archetype P: "*It is extra work. Sometimes we disagreed on the range, because the whole system is long ranged and it takes few years to measure one data point,*	Partial satisfaction with the new archetype (managers against measures and recentralization vs. satisfied staff) B: "*Why? If it's working, why change it? We had a few departures from*	Partial satisfaction with the new archetype R: "*A general comment is that people are fed up with change"* P: "*What is missing for me now is the*

	while you are compelled to report quarterly"	*while you are compelled to report quarterly"*	*managers.* *The staff overall were very positive"* Before the recentralization they used to have 30 people with water, waste water, finance... Now we have 4... The first reaction was "how is this gonna work?""*	*financial budgeting is still a little bit independent of the business planning, so on the business planning we have to put the price stake, but the price stake we don't know how it's going to affect the water service"*
Value Commitment	Competitive R: *"They were very comfortable with what they were doing and they didn't want to change"* P: *"We have always wanted to know that stuff, we have always extracted the right things, put in a modern financial system, with more flexibility"*	Competitive R: *"They were very comfortable with what they were doing and they didn't want to change"* P: *"We have always wanted to know that stuff, we have always extracted the right things, put in a modern financial system, with more flexibility"*	Competitive P: *"I remember 20 years ago we were saying "we want to know our class per meter", you can never track projects and divide by the length 'cause we never get the financial information on a timely basis! We always had the desire to do this and financial people are lagging behind, looking at the operational indicators... Then the operational people were happy! The financial people were just coming around..."*	Reformative B: *"It's a matter of time. Some people jump in... Also the director managers, leaders and supervisors, they are all accepting and understanding it to make this now a workable approach"*
Power Dependences	Concentrated in top management (power over knowledge and hierarchical power) B: *"Of course you had to get the approval of top bureaucrats and the council. Any time you want change in an organization you usually go through the top level. It was the management proposing"*	Concentrated in top management (power over knowledge and hierarchical power) B: *"Of course you had to get the approval of top bureaucrats and the council. Any time you want change in an organization you usually go through the top level. It was the management proposing"*	Concentrated in top management (power over knowledge and hierarchical power) Those resisting have to leave B: *"Those who were negative had to go"* P: *"You always have to negotiate the best PMs. It's a hard work. We ignore them and give what makes sense! You give the information you want"*	Concentrated in top management (power over knowledge and hierarchical power) Those resisting have to leave P: *"You always have to negotiate the best PMs. It's a hard work. We ignore them and give what makes sense! You give the information you want"*
Technical Capabilities	High and dispersed, differentiated in focus between accounting and operational people P: *"The finance people typically didn't understand the science and they're pushing the financial down and we the science up"*	High and dispersed, differentiated in focus between accounting and operational people P: *"We also had corporate training courses. Before you get access, you had to sign on. We relied on courses and experience to figure out how to use information"*	High and dispersed, differentiated in focus between accounting and operational people P: *"We also had corporate training courses. Before you get access, you had to sign on. We relied on courses and experience to figure out how to use information"*	Medium and dispersed B: *"I think reaction is due to not understanding change properly. Those who are negatively reacting to it are because they don't really truly understand it. They need to be clarified"*
Leadership	Transactional and symbolic B: *"Of course you have to get the approval of top bureaucrats and the council. Any time you want change in an organization you usually go through the top level"*	Transactional and symbolic B: *"Of course you have to get the approval of top bureaucrats and the council. Any time you want change in an organization you usually go through the top level"*	Transformational and symbolic B: *"It was a managerial decision to reduce inefficiencies, have better knowledge sharing because the age of the workforce is getting higher and higher. The integration was something that was the outcome of where we wanted to go.*	Transformational and symbolic B: *"It was a managerial decision to reduce inefficiencies, have better knowledge sharing because the age of the workforce is getting higher and higher. The integration was something that was the outcome of where we wanted to go.*

			Sometimes we asked suggestions from the lower level too"	*Sometimes we asked suggestions from the lower level too"*

Table 7 - Environment Department in G Town

Variable/Years	1995-98	1999-2002	2003-2006	2007-08
Interest Satisfaction	Dissatisfaction with the new archetype G: *"Our top managers were scared when they had to report. We had a lot of indicators and some of them thought "The more objective I have, the better it is because they can be better evaluated""* M: *"People weren't completely un happy, but they were generally resistant to the new ideas, I would say"*	Dissatisfaction with the new archetype M: *"Some people were exasperated! For sample, when they introduced a three-month reporting they were complaining "what are we gonna do with this?""*	Satisfaction with the new archetype G: *"In the end they were satisfied of the ISO system. Sometimes someone only points out it's not really flexible"*	Satisfaction with the new archetype G: *"In the end they were satisfied of the ISO system. Sometimes someone only points out it's not really flexible"* M: *"We had difficulties and for performance appraisal in 2007 we tried to flatten more...and people agreed in the end"*
Value Commitment	Status quo G: *"The perception about the EMP was "it's not useful, I'm not gonna do it" or "it's useful only because I get paid on that""*	Status quo M: *"Some people were exasperated! For sample, when they introduced a three-month reporting they were complaining "what are we gonna do with this?""*	Reformative G: *"Some people were open to change because they turned out to be interested in its results"* M: *"It was a slow adjustment to the ISO system. There wasn't really a break point"*	Reformative G: *"Even these last years the EMP isn't perceived as a managerial tool. However, we pay attention in developing our objectives. They really represents our activities"* M: *"We cant think of the ISO systems as a static tool. We are still thinking to introduce new indicators"*
Power Dependences	Concentrated in Finance Office Resistance within the Department G: *"We have always proposed our objectives, but the experimentations and the change were pushed by the Finance Office.* *Some just paid attention to objectives because they were related to pay. They set easily reachable ones. They didn't care of the rest. This attitude was widespread within the Department"* M: *"They perceived the EMO like a Big Brother: "They're gonna monitor even my number of coffees!""*	Concentrated in Audit office and top managers G: *"Managerial control developed and we better defined our objectives as linked to the budget. But it was always something coming from the center"* M: *"We had two inputs for ISO introduction: corporately they had the perception it could be useful; and our director (that became afterwards the corporate internal auditor) understood it was a tool relatively easy to implement in our Department, because it was very technical"*	Dispersed within the Department Low resistance M: *"Our director make clear we had to go forth. But also people in the branches followed... everyone understood it was part of our activity now.* *Many of these procedures are directly managed by the lower levels. We discuss how to manage them, criticalities...* *There was also someone who dais "I don't understand this, but I adapt to change. They complained, they didn't do anything at all. They just didn't participate"*	Dispersed within the Department M: *"We cant think of the ISO systems as a static tool. We are still thinking to introduce new indicators. Last year the external auditors came and pointed out our indicators were too much time-related. We are working on this. We also developed a three-month report for our director"*
Technical Capabilities	Moderate and dispersed G: *"We started experimenting in the Nineties, when there was nothing around yet. We identified lines of*	High and dispersed G: *"We had a big innovation in training and education. The Municipality created an external School!"*	High and dispersed M: *"We gained experience, we simplified the ISO system a lot! At the beginning there was a manual, then we*	High and dispersed M: *"We are now done with the ISO system. We learned how to use it and are pretty good with it!"*

	activities and linked them to expenditures. *Not always the personnel was qualified. Public Administration once had a much stronger social and rather welfare-related role…"*		*improved our management also with the help of the external auditors"*	
Leadership	Transformational and symbolic G: *"Authority not always works… the iron fist can be counterproductive. We tried to win resistance by talking with operational people and employees…"*	Transformational and symbolic G: *"The ISO system was an idea of our director, then it was shared with the Internal Audit Office. The director had noticed some faults in the management"* M: *"The director involved everyone, we had meetings. The deadline was set in 2001. The approach was to involve all people within the Department, although some just pretended to be interested… We met also to solve problems and propose corrections"*	Transformational and substantive M: *"We had frequent general meetings, in some cases with top managers to aim the word properly. Other meeting were just thought to communicate and motivate all employees. We wanted all the tools to be shared by everyone. We discussed a lot. It hadn't to be something imposed from the top!"*	Transformational and substantive M: *"At the end of every year we have a meeting with all the quality employees from each office. We discuss and decide together what to change and how"*

Table 8 - Environment Department in T Town

Variable/Years	1995-98	1999-2002	2003-2006	2007-08
Interest Satisfaction	No satisfaction nor dissatisfaction with the new archetype C: *"How biggest trouble was in filling the EMP in. But I would say that it flew over our heads…"*	No satisfaction nor dissatisfaction with the new archetype C:*I cant remember people really opposing change… for many it just slide away…"*	No satisfaction nor dissatisfaction with the new archetype B:*" We didn't have particular dissatisfaction because cost accounting and monitoring tools didn't really put upside down anyone's work"*	No satisfaction nor dissatisfaction with the new archetype B:*" We didn't have particular dissatisfaction because cost accounting and monitoring tools didn't really put upside down anyone's work"*
Value Commitment	Indifferent C: *"The EMP wasn't able to incentivize people. It was just linked to appraisal. I helped identify some strategic objectives, but it didn't involve all"*	Indifferent C:*"I cant remember people really opposing change… for many it just slide away…Well, no one was eager to change"*	Indifferent C: *"The reason we monitor a specific objective is not because it's in the EMP. Moreover, we managed in the way we did before even after the cost accounting stuff"*	Indifferent B: *"Commitment and involvement would be important. Unluckily we don't have it. Employees just feel to be pawns and that's disappointing!"*
Power Dependences	Concentrated in politicians Low resistance due to low involvement C: *"The EMP was done because required. Politicians wanted it. It wasn't our need for sure. Those projects are lived as anything else"*	Concentrated in politicians and top management Low resistance due to low involvement C: *"Strategic objectives are identified by the top. For example, to improve the city cleaning service, it's something decided by the city manager and our director. PMs depend on the Internal Audit Office. So we usually don't care about*	Concentrated in politicians and top management Low resistance due to low involvement C: *"We miss the involvement at the lower levels. They don't perceive change as something to improve their work"*	Concentrated in politicians and top management Low resistance due to low involvement C: *"We miss the involvement at the lower levels. They don't perceive change as something to improve their work"*

		those things…" B: *"Sometimes the alderman comes out with something creative and you have to comply and cope with it. He decides. Technical people and managers have to realized it"*		

Variable	1995-98	1999-2002	2003-2006	2007-08
Technical Capabilities	Low and dispersed C: *"How biggest trouble was in filling the EMP in. We didn't have much training"* B: *"We had some communication and training. We met with the city manager and the mayor twice a year to make adjustments to the systems. Internal specific training then was highly dependent on your direct manager…"*	Low and dispersed C: "PMs depend on the Internal Audit Office. So we usually don't care about those things…" B: *"In our case we missed someone with specific professionalism to manage change. We had to build our skills on the need. But we perceived this lack"*	Low and dispersed C:*"It wasn't easy to change the old culture and the training of the new comers require years!"*	Low and dispersed C: *"I still understand only 2/3 of the EMP… I feel bad if i think we will be required to introduce also the quality system soon!"*
Leadership	Transactional and symbolic B: *"The EMP was something that the administrative part had to actually put in place. It goes under our competences. It's a matter of responsibilities, but of course the politicians have to agree. We had some communication and training. We met with the city manager and the mayor twice a year to make adjustments to the systems"*	Transactional and symbolic C: *"How the whole process was managed at the Department level depended on the single top manager. He had to decide whether and how involve people. We usually do it well internally"*	Transactional and symbolic C: *"How the whole process was managed at the Department level depended on the single top manager. He had to decide whether and how involve people. We usually do it well internally"*	Transactional and symbolic B: *"In this department we like talking and confrontation. I myself involve my employees, I arrange meeting to explain "these are our objectives""* C: *"We miss the involvement at the lower levels. They don't perceive change as something to improve their work"*

Table 9 - Public Infrastructures Department in C Town

Variable/Years	1995-98	1999-2002	2003-2006	2007-08
Interest Satisfaction	Dissatisfaction with the new archetype W: *"For the business plan I haven't seen any help yet…"*	Dissatisfaction with the new archetype W: *"A lot of people in this environment have been here for a long time, it's the way they have always done and they don't want to change that"*	Dissatisfaction with the new archetype S: *"I think in a way we actually made matters worse… Another thing that is happening now is that the budget is driven underground on black pockets. There was very much a perceived loss of power… If they perceive the fact that by having a centralization of this information there is a people's loss of control… how do you actually get around? It's all about getting control of the information! This is from both*	Dissatisfaction with the new archetype S: *"Public industry hasn't been depreciating physical assets until the last 30 years, we never had to do that! Some assets are easily depreciable, a vehicle no problem. But what is the value of land? Do you use the cost of purchase? Sometimes we bought a land for a dollar! But there is still perception in the asset management, and I'm sorry… like "I wish my job was just the way it was!""*

				operation and finance people"
Value Commitment	Indifferent S: *"They train on the template, not on the competencies to actually create how to measure this… A lot of the business plan exercise actually occurred only at high people level"*	Status quo W: *"Probably there is more confusion, so there is some questioning"*	Status quo S: *"Just: "here, tell me what are you PMs". My what? What measures?"*	Status quo S: *"What I heard from the people: they are tired. They have been changing and changing, it's getting resistance to the piece of change. And the ambiguity now, because this never ends, there wont be an end! People are going through perpetual changes and they are getting tired"*
Power Dependences	Concentrated in Finance Office, City manager and GM S: *"We had directors who were very good at arguing for money for their area, but we didn't have one common group that was arguing for the whole organization. The mayor didn't have somebody to know how much money I have shown for infrastructures"*	Concentrated in Finance Office, City manager and GM Resistance by other levels by blocking the process S: *"We used every trick we could think of: from the stick way going to the city manager to tell people "do it!" to the other side, using corporate recognition, to show if they help we'll give a little money "thank you very much for your work". And everything in between… people have done everything to do sabotage, just sighting short"*	Concentrated in Finance Office, City manager and GM Resistance by other levels by blocking the process (recentralization) S: *"There was very much a perceived loss of power. When you have a corporate group and you have the manager of the corporate finance doing what I do, every of the different units retain information each, information is ours, right? So if they perceive the fact that by having a centralization of this information there is a people's loss of control… how do you actually get around? It's all about getting control of the information! This is from both operation and finance people"*	Concentrated in Finance Office, City manager and GM S: *"The problem is we never identified one champion, one controller and the organization is so big. For example, I would do the budget prioritization, but I don't do the budget. So there is confusion, they send an email for this: why isn't the capital budget on? And I'm not dumb! I know exactly!"*
Technical Capabilities	High and dispersed for technical issues Low and dispersed for strictly managerial and corporate driven systems S: *"From the operational side they were very adapt to PMs, what we call infrastructure PMs. One of the first instruments was introduced about 30 years ago.* *They trained on the template, not on the competencies to actually create how to measure this… It's a kind of feeding into the corporate fold"*	High and dispersed for technical issues Low and dispersed for strictly managerial and corporate driven systems S: *"From the operational side they were very adapt to PMs, what we call infrastructure PMs. One of the first instruments was introduced about 30 years ago.* *They trained on the template, not on the competencies to actually create how to measure this… It's a kind of feeding into the corporate fold"*	High and dispersed for technical issues Low and dispersed for strictly managerial and corporate driven systems S: *"Just: "here, tell me what are you PMs". My what? What measures? … Lack of training and lack of time"*	High and dispersed for technical issues Low and dispersed for strictly managerial and corporate driven systems W: *"From the engagement perspective, they had regular meetings, they had information on a regular basis… We had basic courses to represent each business unit"*
Leadership	Transactional and symbolic S: *"The mayor didn't have somebody to know how much money I have shown for*	Transactional and symbolic S: *"We used every trick we could think of: from the stick way going to the city*	Transactional and symbolic S: *"We used every trick we could think of: from the stick way going to the city*	Transactional and symbolic S: *"The problem is we never identified one champion, one controller and the*

infrastructures. That's where our office came from: we stand for all the others. How funding level: how much we need to actually maintain our level of service? My first job was to identify our infrastructure deficits. He said "I don't care what accountants are telling me and how much I'm getting funded, given you're very diligent in spending money, I want to know how much money I need to enable me to go fight for you?""	*manager to tell people "do it!" to the other side, using corporate recognition, to show if they help we'll give a little money "thank you very much for your work". And everything in between... people have done everything to do sabotage, just sighting short"*
	manager to tell people "do it!" to the other side, using corporate recognition, to show if they help we'll give a little money "thank you very much for your work". And everything in between... people have done everything to do sabotage, just sighting short"
	organization is so big. For example, I would do the budget prioritization, but I don't do the budget. So there is confusion, they send an email for this: why isn't the capital budget on? And I'm not dumb! I know exactly! *I would love they to just say "you are doing this and you this...and nobody is doing that because it conflicts with that". We do not have that"*

Table 10 - Public Infrastructures Department in E Town

Variable/Years	1995-98	1999-2002	2003-2006	2007-08
Interest Satisfaction	Dissatisfaction with the new archetype H: *"I heard of some big fears, I tried to relieve fears because whenever you start doing change, people assume you're saying downsizing. The big fear was losing the job, and I repeat and repeat "this has nothing to do with job""*	Satisfaction with the new archetype H: *"There was not a lot of complaint and we worked on the language of this to see that everybody can find where their work is described in here. We had contexts: you submit the best ideas, and the best idea gets process.* *So when the change happened and everybody had a place for themselves they were like "wow, that's good!""*	Dissatisfaction with the new archetype K: *"These are the things we are struggling with and until we can come out with some very accurate performance indicators on how we are managing within our branches and department, we're not really willing to measure it.* *We had other groups that during the stages of the process, they weren't seeing any immediate benefit, so they didn't participate, they didn't send their best people to it"*	Partial dissatisfaction with the new archetype W: *"We came up with this "ok, this is what we have, this is what it's gonna look like"*(on project management). *We changed computer systems to a module of SAP, called Pacman. Without changing the system, we changed the approach to the computer system. Some have grabbed and have gone with it. Not everything is in place in Pacman, so not all the system is supported and someone goes around complaining"*
Value Commitment	Status quo H: *"There were people who... this gentleman here is going to be in lane and pipe and focusing only on that. They are not gonna be involved in it, but they make a sense of what is happening. People flushing sewers may not too connected to the mission"*	Status quo H: *"We did not do things like saying "hey! the managers thought that we should become ISO 140001 certified. Ok let's go have it!""*	Competitive H: *"It comes from the business plan or things like that "it's a good idea, we should do that". That might stick around for one year and then various people start seeing how much interesting it is and then "isn't certainly better if we do this? Let's get started" And then you start seeing who is involved. Dedication is really part of this. So if the organization send the same information out, in the coming back there are many avenues for this to happen"*	Reformative W: *"They all felt a sense of ownership because they had provided inputs in terms of what they liked in terms of options, what they didn't like, suggestions, refined options, etc. And from that process we came up with this "ok, this is what we have, this is what it's gonna look like". So the acceptance was good because they had been part of the process(project management).* *They have been despiteful for a long time, they haven't been given the opportunity to really do what they are trying to do. Then we have opened the*

				doors and the best performers have said "yea, I'm out of here. I'm ready to take on this challenge""
Power Dependences	Concentrated at the low/technical levels (that have also the power to resist) H: "*What I saw was that design and construction really wanted it, but the others sections did not want it because the ISO 9001 didn't make sense to us. They see more for a manufacturing plant. We worked very well for them, but we didn't want it. So in 1995 when they were going through it, we stayed away from it and our manager didn't force us to do it and that worked out*"	Concentrated at the low/technical levels (that have also the power to resist) H: "*In 1995 when they were going through ISO 9001, we stayed away from it and our manager didn't force us to do it and that worked out. When the 140001 came along these people said "we don't really need to do it since we are 9001 certified, it would be easy for us to add as well, because there are a lot of similarities in the process and they had the culture there. So the big work was for us and waste water to be aligned into that*"	Concentrated at the low/technical levels (that have also the power to resist) H: "*The city manager put a lot of emphasis on getting the right performance indicators, something that is meaningful, that leads to benefit the city buy the services we're delivering on or something that indicate that we're running really efficiently or meeting the taxpayers expectations in regards to the service we're delivering. These are the things we are struggling with and until we can come out with some very accurate performance indicators on how we are managing within our branches and department, we're not really willing to measure it*"	Concentrated at the low/technical levels (that have also the power to resist) H: "*There is a kind of reluctance to omit the resources required to now get Pacman up so that they can provide more knowledgeable information into the system so that you can perform at the optimum level from it if there is some horrid scaring individual… so what it still requires is a lot of pushing from the bottom people involved, making sure that they are adequately resourced to meet the long term need of how the system was developed the first time*"
Technical Capabilities	High and dispersed for technical issues Low and dispersed for strictly managerial and corporate driven systems K: "*We created subcommittees within each departmental branch and they were pooled together all the resources, all the knowledge from each different section branch within this department to develop an overall guide documents on the delivery of each project in this group*"	High and dispersed for technical issues Moderate and dispersed for strictly managerial and corporate driven systems K: "*The subcommittee that developed our project management model, once they developed, they were also our trainers and they would roll these professional modules to all the areas within the department*"	High and dispersed for technical issues Low and dispersed for strictly managerial and corporate driven systems K: "*They sent peripheral people at the outside boundaries, not really knowledgeable of their processes, but they had a warm person in the chair saying they were there. When it's gonna going into a different stage of the implementation, into the planning and the set up of budget and all that other stuff, they are significantly behind schedule and now they really have to commit the resources to be brought up to that speed as quickly as possible*"	High and dispersed for technical issues Moderate and dispersed for strictly managerial and corporate driven systems W: "*We are looking at a variety of possibility, but we are bringing in a whole project management training into the organization. There is a huge learning curve: taking people to that learning curve. Some have grabbed and have gone with it*"
Leadership	Transactional and symbolic H: "*Definitely change in an organization requires champions. And the change requires the top people to be committed to it, but the top person cant be the champion because it's too hard, there is too many things to do. What we*	Transformational and symbolic W: "*I started with the senior people, involving the managers directors and the senior staff, and I talked to them about what my observations were and what we needed to have the branch look like*"	Transformational and symbolic K: "*We had a GM being overall our steering committees members saying "these are the guidelines you guys have to meet". He's put a lot of emphasis on getting the right performance indicators, something that is meaningful, that leads*	Transformational and substantive (based on knowledge) K: "*All the people participating in the development of Pacman, they knew what the goal was, and whatever path they wanted to get to that goal and the more eclectic the participants are… you're*

	searched for was support from the boss"		*to benefit the city buy the services we're delivering on or something that indicate that we're running really efficiently or meeting the taxpayers expectations in regards to the service we're delivering. He really wants them meaningful, if they're not, it's not really worth measure"*	*drawing on different knowledge bases in a bunch of different areas: subject matter experts in their specific field were able to believe in a very successful development of what that first stage was to look like"* W: *"There is an open door policy: usually my door is open, people just wander in and give me their opinion. The other part is part of the promotion things and is the mentoring cycle: within the office people mentoring people"*

Table 11 - Public Infrastructures Department in G Town

Variable/Years	1995-98	1999-2002	2003-2006	2007-08
Interest Satisfaction	Dissatisfaction with the new archetype B: *"The biggest problem was the excessive workload… most of all for operational people"* R: *"After the EMP introduction, the administration's objectives were even less clear to me!"*	Dissatisfaction with the new archetype M: *"It didn't make sense to have only the programming phase and not the control one!"*	Dissatisfaction with the new archetype R: *"All these changes were a signal of instability and distress. They were surely necessary, but could be done in a simpler way"*	Dissatisfaction with the new archetype R: *"All these changes were a signal of instability and distress. They were surely necessary, but could be done in a simpler way"*
Value Commitment	Indifferent B: *"We didn't have any particular resistance or push for change. In the end everyone did what they were asked"*	Competitive (director manager shows status quo vs. operative people who try to link Triennial Plan and EMP) B: *"We do what we are asked, but cost accounting doesn't actually have an impact on our activity. It concerns current expenditures only"* M: *"It didn't make sense to have only the programming phase and not the control one! So we tried to link the triennial plan and the EMP drawing on its objectives"*	Status quo R: *"It depended on culture too. I am a civil engineer. I admit I find hard to understand these new concepts!"*	Status quo R: *"It depended on culture too. I am a civil engineer. I admit I find hard to understand these new concepts!"*
Power Dependences	Concentrated outside the Department (politicians and Finance Office) Resistance from departmental managers for technical issues B: *"The Finance Office had an active role in all procedures"*	Concentrated outside the Department (City manager and politicians) Resistance from departmental managers for technical issues B: *"The city manager pushed for the integration of all documents in 2000. He found agreement among people"* M: *"The triennial plan was too young*	Concentrated in City and top managers Resistance from departmental managers for technical issues B: *"We always look for involvement, but change always starts from the top and it's ok. We can't invent different objectives"*	Concentrated outside the Department (City manager and politicians) Resistance from departmental managers for technical issues R: *"The center propose, but it's never only one thing: think something, rethink it… Activities are more political than technical, there is more image than*

		and political to be really linked with managerial objectives"		*substance. We want to do things, but maybe it's still too early"*
Technical Capabilities	High and dispersed for technical issues High and concentrated in the controller for strictly managerial and corporate driven systems B: "*The operational people lived activities like very specialist. A certain education and background are needed"* R: "*I wasn't good in understanding and dealing with the new ideas. Anyway we had training courses of course…"*	High and dispersed for technical issues High and concentrated in the controller for strictly managerial and corporate driven systems B: "*The operational people lived activities like very specialist. A certain education and background are needed"* R: "*I wasn't good in understanding and dealing with the new ideas. Anyway we had training courses of course…"*	High and dispersed for technical issues High and concentrated in the controller for strictly managerial and corporate driven systems B: "*The operational people lived activities like very specialist. A certain education and background are needed"* R: "*I wasn't good in understanding and dealing with the new ideas. Anyway we had training courses of course…"*	High and dispersed for technical issues High and concentrated in the controller for strictly managerial and corporate driven systems B: "*The operational people lived activities like very specialist. A certain education and background are needed"* R: "*I wasn't good in understanding and dealing with the new ideas. Anyway we had training courses of course…"*
Leadership	Transactional and symbolic B: "*The Finance Office had an active role in all procedures. We looked for support from everyone, but the center was the one pushing more for change. We had to comply"*	Transactional and symbolic B: "*The city manager wanted to link all the activities to the EMP to have a better understanding of activities. He pushed for the integration of all documents in 2000"*	Transactional and symbolic R: "*The center propose, but it's never only one thing. Changes were surely necessary, but could be done in a simpler way"*	Transactional and symbolic R: "*The center propose, but it's never only one thing. Changes were surely necessary, but could be done in a simpler way"*

Table 12 – Public Infrastructures Department in T Town

Variable/Years	1995-98	1999-2002	2003-2006	2007-08
Interest Satisfaction	Not satisfied nor dissatisfied with the new archetype B: "*For the majority of the people the EMP objective didn't affect the pay, so it was irrelevant. We had discussions on objectives identification, because you are rarely able to reach them. The crisis was because we put so much effort in defining them, but in the end the organization changed its mind and you always have to revise them"* C: "*It wasn't in the public DNA to define objective. We were used to comply, that's it!"*	Not satisfied nor dissatisfied with the new archetype B: "*They didn't complain. Only those directly touched by the Technical Office complained. The system in itself wasn't seen as a danger"*	Not satisfied nor dissatisfied with the new archetype C: "*We were compelled to use the new tools, even complaining, because we had to control activities"*	Not satisfied nor dissatisfied with the new archetype B: "*We program drawing on our documents, our knowledge and our competences depending on your focus of activities, schools, houses, etc…."*
Value Commitment	Indifferent B: "*For the majority of the people the EMP objective didn't affect the pay, so it was irrelevant"* C: "*The EMP wasn't used at all. They really didn't care!"*	Indifferent B: "*People overall think that the EMP is useful, but here it had to be continuously revised. We set objectives that we were never able to reach. Besides the Internal Audit office and the internal controller,*	Indifferent C: "*If the EMP was considered only for being related to pay, just imagine the other corporate control tools!"*	Indifferent B: "*We program drawing on our documents, our knowledge and our competences depending on your focus of activities, schools, houses, etc…."*

		the other people just acknowledge that and comply. Control tools were seen just as formal duties"		
Power Dependences	Concentrated in Financial and Audit Offices and director manager B: *"Most procedures were directly manager by the Finance Office. We cant affect resources.* *The EMP touched only the top management, while operational people went on working on day-by-day activities.* *All our monitoring goes to the director"* C: *"All EMP objectives are selected by the audit office and the city manager"*	Concentrated in Audit and Technical Offices and director manager Low resistance to control on compliance and inspections B: *"The link with the EMP came thanks to the corporate auditor.* *We created the Technical office to control payments and administrative compliance. They didn't complain. Only those directly touched by the Technical Office complained. The system in itself wasn't seen as a danger"*	Concentrated in Technical office and director manager B: *"Before the Technical Office all the power was concentrated in the director, the only one able to issue an obligation document involving payments. Now there is the Technical office. But it sometimes adopts the same old logics!"*	Concentrated in the Technical office and the director manager B: *"Before the Technical Office all the power was concentrated in the director, the only one able to issue an obligation document involving payments. Now there is the Technical office. But it sometimes adopts the same old logics!"*
Technical Capabilities	High and dispersed for technical issues Low and dispersed for strictly managerial and corporate driven systems B: *"We already programmed and controller our public works before. We controlled their advancement.* *We had training courses for the top management after the EMP introduction. They all concerned the EMP"*	High and dispersed for technical issues Low and dispersed for strictly managerial and corporate driven systems B: *"The Technical office had also the task to communicate and train. We had to reach similar standards of compliance in all our offices.* *We had ad hoc courses on public works accounting too"*	High and dispersed for technical issues Low and dispersed for strictly managerial and corporate driven systems C: *"We tried to explain everybody that objectives had to be challenging, but no one actually did it…"*	High and dispersed for technical issues Low and dispersed for strictly managerial and corporate driven systems B: *"The Technical Office updates us about new legal requirements. It provides continuous training on technical matters.* *Courses are compulsory for all levels, from top management to operational people"*
Leadership	Transactional and symbolic B: *"When the EMP was created we decided to link it to performance bonuses. Objectives in our Municipalities are identified only for top management. Before it was even worse, everything was linked to political will, trying to make everyone happy…"*	Transactional and symbolic B: *"The link with the EMP came thanks to the corporate auditor. He had the idea and realized it. He asked some information from us and went on his own…* *The Technical Office communicates and give directions through formal documentation and internal regulation"*	Transactional and symbolic B: *"The link with the EMP came thanks to the corporate auditor. He had the idea and realized it. He asked some information from us and went on his own…* *The Technical Office communicates and give directions through formal documentation and internal regulation"*	Transactional and symbolic B: *"Today the weight of the territorial offices is decreasing. There is still a strong political aspect: projects went back and forth, negotiating. It never happened to say "We decided this, that's it""*

Conclusions

This study aimed at better understanding different results in the change efforts at the organizational level, even under similar external pressures and processes by investigating (i) the intra-organizational variables affecting the outcome of change (i.e. radical vs. incremental change), and (ii) the role played by the process of change itself and its different dimensions (i.e. pace, sequence and stability). In particular, drawing on archetype theory and keeping as a common thread the study of accounting change, three papers were developed examining the Local Government (LG) field. Firstly, the existence of an accounting change paradox, not fully explained by the traditional contingent and resource dependence perspective, has been pointed out and investigated. Then, from the first emerging explorative results, other two papers followed, one taking change in accounting practices as an example of organizational change processes (Dent 1991), and one looking at factors leading to different results of accounting change even under similar external pressures (Etherington and Richardson, 1994; Tsamenyi et al., 2006; Ezzamel et al, 2007).

More specifically, the first paper *"What Role For The Antecedents Of Change? Unveiling An Accounting Change Paradox"* pointed out the existence of an apparent paradox in accounting change emerging from an empirical investigation of two Italian LGs. Change was radical and revolutionary in the larger LG and convergent and evolutionary in the smaller one. These findings could not be fully explained by contingencies, such as size and resource differences (Pugh et al. 1963; Haveman, 1993; Prahald and Bettis, 1986; Repenning and Sterman, 2002; Bloodgood, 2006). Over the period under study, indeed, neither organization experienced jolts in the relative size, the variable that contingency theory would predict to be relevant in order to trigger change. Similarly, the organization with lower financial performance and more uneven internal power distribution (both pushing for change) didn't change. Moreover, both LGs had to cope with very similar regulative, normative and cognitive pressures.

Archetype theory (Greenwood and Hinings, 1993, 1996) helped explain this paradox. The results highlighted the importance of intra-organizational factors in determining the final outcome of change. As a consequence, some propositions have been developed and proposed, concerning the role of external and internal factors affecting change, and their combination. In fields characterized by high ambiguity and visibility and pervasive legal requirements, such as the LG field, regulative pressures are not sufficient to ensure radical change. Looking within

the organization, the exercise of concentrated power represents a strong condition to ensure radical accounting change, although it does not necessarily affect the change in culture and values. In particular, power over meanings is necessary. Technical and managerial capabilities are also fundamental in ensuring change. In particular, high and dispersed technical capabilities, together with substantive transformational leadership, are necessary to spread radical change. The combination of intra-organizational factors shows that radical change is more likely to occur when a dominant pattern of interests and a reformative pattern of value commitment are coupled with both concentrated power dependencies and high and dispersed capabilities. On the opposite, weak and competitive interests and value commitment and concentrated power dependencies combined with concentrated technical capabilities are more likely to ensure a change in structures and systems only. Finally, the internal filtering of external factors points out that strong financial pressures can offset possible positive effects of internal organizational dynamics by concentrating technical capabilities and strengthening a symbolic transactional leadership. Strong cognitive and normative pressures, instead, support interests and value commitment favourable to the achievement of radical change.

The theoretical contribution of this paper is threefold: first, it contributes to the organization theory on change by better addressing the limits of contingency and resource-dependence theories. The cases showed that contingencies and financial factors by themselves are unable to fully account for the different outcomes of change. As a consequence, drawing on archetype theory, which considers both external and internal factors influencing change and their interaction, it was able to better understand how the paradox took place. With respect to previous literature (Hinings and Greenwood, 1988; Greenwood and Hinings, 1996), the paper also highlighted the importance of taking into consideration the level of dispersion of technical capabilities during change and that concentrated power can actually help radical change by identifying a clear champion of change. Second, it investigated accounting change adopting an approach, archetype theory, mostly under-utilized in the field (for an exception see Windels and Christiaens, 2006). This helped explain the paradox in the outcome of accounting change and proved to be helpful for identifying and explaining different outcomes of accounting change. Third, by studying a particular setting characterized by high regulative pressures and strong legal institutions, the paper pointed out some relevant variables that are likely to influence change.

From the analysis some implications for practitioners emerge. In order to support accounting change it is important to take into consideration both external and internal stimuli and their

interaction. Regulations, financial stress and demand can be an "external justification" to change. However, they cannot be sufficient to impact on the organizational interpretive schemes. Some specific observations can be also referred to public sector reforms. Reforms tend to be introduced in a top-down fashion, with a focus on the adoption of new regulations and a scant attention towards their actual implementation. By using cognitive, normative and financial leverages, policy makers should try to influence intra-organizational conditions in order to impact on internal capabilities, development and diffusion of competencies which facilitate change, commitment to change, etc.

The second paper "*How the dimensions of the process of change interact over time: the case of accounting change*" addressed the lack of understanding in organization theory, concerning the role played by the process itself in affecting the final outcome of change. In particular, it investigated: (i) whether a specific pace of radical change exists, i.e. a fast, revolutionary pace, sudden and global in the elements being changed, as opposed to a step-by-step process, (ii) whether and to what extent different outcomes of change are characterized by different (more or less) linear sequences of change in key-structures and systems, and (iii) how the three dimensions of the process of change (namely, pace, sequence and linearity) can possibly interact. As an example of organizational change the study took into consideration processes of accounting change in Italian and Canadian Municipalities, which, over the last decades, underwent a deep process of reform aiming at moving from the bureaucratic to the managerial archetype.

All the examined organizations started their process of change after the issuing of a law, requiring the introduction of new managerial accounting tools. The results, however, show that different Departments had different responses to change also as a consequence of the process followed. As far as the sequence is concerned, radical change is linked to a joint change in systems purpose and accountability structure, followed by a change in the focus. It seems to happen independently of the level of linearity (i.e. the existence of reversals) and with both revolutionary and evolutionary pace. In order to achieve radical change, then, organizations should pay more attention to the sequence of elements to be changed and their relative timing. Under this perspective, the study has two main implications: (i) managers should be aware of the results that different ways of managing the process of change can bring about, and (ii) in a reform process political decision makers should consider that a settling time is needed between different changes in order to absorb both new values and actual changes in systems and structures.

Theoretically, the present study contributes to fill the literature gap concerning the role played by the process itself in affecting the final results of change (Hinings and Greenwood, 2002, Pettigrew et al., 2001; Amis et al., 2004). In particular, it provides a better understanding of how the three dimensions of the process can affect the outcome of change, considering both radical and incremental outcomes. The study suggests that, consistently with Amis et al. (2004), processes of radical change can be characterized by both a revolutionary and evolutionary pace. This contradicts previous researchers, such as Romanelli and Tushman (1994), Warren (1984), and Hackman (1984), who suggest that radical transformations need to be made throughout an organization quickly and early in a change process. On the opposite, the paper found that both new systems and structures and values and ideas need time to be internalized. As a consequence, those starting the process of radical change together with the spreading of the new ideas will proceed more slowly; while those who take more time to internalize new changes and ideas will show a faster pace of change later in the process.

Contrary to Amis et al. (2004), the results showed that the sequence of key-elements for a radical change are not strictly related to decision making tools, but rather to the purpose, the accountability structures and the focus of the systems put in place. Moreover, the sequence of changes being introduced revealed to be the dimension of the process which more strongly influences the final outcome of change, irrespectively of its pace and linearity. Finally, processes of change happen smoothly (i.e. with few stops and reversals) and are characterized by an initial upsurge in the number of changes, followed by a relatively more stable period. This partially contrasts with Amis et al. (2004), who suggest the tendency for change to be characterized by oscillations and reversals. This finding could be related to the specific field and the type of organizations under study. The paper, indeed, investigated a field, Municipalities, which is still undergoing a process of managerialization attempting an archetypal change and which is characterized by high ambiguity, low output measurability and strong regulative influence. While much research previously focused on high technology industries (Tushman and Romanelli, 1994, Brown and Eisenhardt, 1997), this study provided a more in-depth analysis of previous findings in a different setting and gave some hints about how public sector reforms should be designed and carried out.

The third paper *"Disruptive vs. Sedimented processes: organizational dynamics and patterns fostering radical accounting change"* addressed the existing lack of understanding in accounting literature in explaining different results of accounting change efforts at the

organizational level, even under similar external processes and pressures (Covaleski et al. 2003; Etherington and Richardson, 1994; Tsamenyi et al., 2006; Ezzamel et al, 2007). By investigating multiple cases of accounting change and adopting archetype theory (Greenwood and Hinings, 1993, 1996) as a conceptual lens, the purpose of the paper was to look at how intra-organizational dynamics combine with the patterns of the process (disruptive vs. sedimented) to actually foster or hinder the final outcome of change. In particular, it investigated: (i) why radical change happens, and (ii) what the intra-organizational variables that drive a radical change are. The paper analysed twelve Departments in two Italian and two Canadian Municipalities. While Italy underwent what can be defined a more disruptive process of change, Canada had a more constant and layered pattern.

The results showed that comparing outcomes of radical change, with both the patterns of process, radical change is led by the shift to a higher level of satisfaction with the new archetype and high and dispersed technical capabilities. In cases of sedimented process, radical change will more likely result from reformative commitment, while disruptive change allows both competitive and reformative patterns. Power has a more dispersed configuration in disruptive radical change than in sedimented one. Finally, leadership required for radical change is transformational in both cases, but substantive in the former case and symbolic in the latter.

Such patterns of intra-organizational dynamics are confirmed also looking at different outcomes of change within the same type of process. Within both the patterns of process, what really distinguishes radical from incremental change is the presence of a certain degree of satisfaction with the new archetype and (i) transformational substantive leadership in case of disruptive processes, or (ii) transformational symbolic leadership in case of sedimented processes. All the other dynamics presented variable patterns and differently combine for radical change. Interests satisfaction reveals fundamental for radical change because it's related to the perceptions of the new tools and ideas. If people are satisfied with the new archetype and with the new status and conditions it brings about, change is facilitated and supported. Satisfaction, then, can affect commitment as well. As a consequence, it is the first and most important factor to be considered in order to achieve radical change. The second important differentiating factor is leadership, which affects directly the outcome of change and is often recalled by the interviewees as important to generate commitment. Radical change in disruptive processes is characterized by transformational and substantive leaders, because it's important to generate commitment and involve people in a more active and

substantive way in order to spread new ideas, convince others and generate the required leap. A more continuous and sedimented process, instead, requires a symbolic leadership to win people's resistance and tiredness of change.

In addition to these, interviews highlighted other important personal and contingent variables for the achievement of radical change that should be incorporated in the existing archetype framework, i.e. internal communication, personal characteristics, actual participation and type of activity. Such results strengthen previous research on organizational change. Communication, in fact, can be seen as a means to decrease uncertainty, thus increasing change acceptance (Wanberg and Banas, 2000, Daly, 1995; Mayer et al., 1995, Ming Lau and Woodman, 1995, Lovelace et al., 2001, Putnam and Boys, 2006, Chawla and Kelloway, 2004). Similarly, change management literature claims that openness to change and involvement during the process are critical for achieving change (Cornell and Herman, 1989; Fiorelli and Margolis, 1993; Wanberg and Banas, 2000; Chawla and Kelloway, 2004). These variables alone, however, represent only enablers and cannot ensure radical change.

This paper has a twofold theoretical contribution. First, it contributes to existing accounting literature by providing a better understanding of the role of intra-organizational dynamics in affecting different results of accounting change efforts at the organizational level, even under similar external processes (Preston et al, 1992; Etherington and Richardson, 1994). In particular, while current approaches aren't able to fully account for such differences, the archetype model explains in a more detailed and comprehensive way how intra-organizational factors can generate and foster possible inconsistency or crisis and thus affect the outcome of change. This approach has been poorly used to study accounting. Nevertheless, it proved useful also to better identify and define possible outcomes of accounting change (i.e. radical vs. incremental), by considering not only the formal introduction of the new accounting systems, but also the shift in the related values and ideas through which they are used. Second, looking at organization theories of change, this study combined intra-organizational dynamics and different patterns of the process to investigate their influence on the final outcome of change. In particular, it compared both different outcomes of change in the same type of process and different processes with the same final outcome. Hinings and Greenwood (1988), although adopting a different level of analysis, were the first to examine intra-organizational dynamics through the archetype framework looking at the UK LGs, which were undergoing a disruptive process of change. This research went further existing studies by considering together both intra-organizational variables and different patterns of change

process and by comparing their influence on the final outcome of change. Finally, it suggested the need to incorporate in the archetype framework some personal and contingent variables, which represent enablers of change and contribute to explain its final results. Specific relationships were thus highlighted and proposed.

Some managerial implications can be drawn. During processes of accounting change, indeed, managers should focus in particular on the achievement of people's satisfaction and the right kind of leadership. It is important, moreover, to try to understand the pattern the process of change they are undergoing in order to influence the right organizational variables. This dimensions matter also for policy makers, when designing public sector reforms and influencing organizational incentives to change.

Finally, some general conclusions to the overall study can also be drawn. The three papers, indeed, highlighted under different perspectives that different outcomes of change at the organizational level, although in presence of similar external pressures, can be explained in terms of the influence of the intra-organizational dynamics and the dimensions and patterns of the process of change itself. Such factors help explain in a more detailed way how radical change happens, why different outcomes are achieved in presence of similar external conditions and why similar outcomes exist in presence of different external pressures.

Theoretically, the study contributes to get a better understanding of the process of change in accounting systems (but not only) in terms of determinant factors and their combination, affecting contingencies and patterns of change. Many authors, in particular, have stressed the need go beyond a merely rational and functional vision of accounting, by considering it as a social practice (e.g. Hopwood, 1987; Chua and Degeling, 1993). This study contributes to this increasingly popular research topic by stressing an intra-organizational and process perspective, where change is the result of the interaction among different coalitions and where the symbolic meaning and sequence of the systems being changed can affect its final outcome (Preston et al, 1992; Pettigrew, 1985; Hinings and Greenwood, 1988; Kikulis et al., 1995). The adoption of archetype theory, moreover, allowed a better definition and identification of the different possible outcomes (i.e. radical vs. incremental) of accounting change. From a managerial perspective, through the identification of some relevant factors, the study makes managers more aware of the organizational variables and dynamics that can foster a radical outcome of change. Finally, through the investigation of the empirical setting of the LGs, it

contributes to the NPM literature and to the debate on the evaluation of public sector reforms in terms of both comparison with their desired purposes and unexpected results (Andrews and Moynihan, 2002).

Further research is needed to analyse specific relationships among variables and factors affecting the different outcomes of accounting change. In particular, the findings suggest exploring whether different sequences of changes are associated with specific outcomes and tracks of change. Quantitative studies would also be useful to point out differences and explanatory powers of the variables here highlighted. Finally, the research opens the way to the study of the introduction of new practices, even different from accounting, in order to assess whether the features of the process of change and the intra-organizational dynamics vary with the nature and the content of the change being attempted. Further comparisons among different countries could be useful, under this respect, to better understand also the necessity of introducing specific changes during public organizations' reforms.

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