Process Moves in The Intra-organizational Diffusion of Knowledge Management: Preliminary Findings from A Study on CKO Effectiveness
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PROCESS MOVES IN THE INTRA-ORGANIZATIONAL DIFFUSION OF KNOWLEDGE MANAGEMENT: PRELIMINARY FINDINGS FROM A STUDY ON CKO EFFECTIVENESS

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ABSTRACT:

The existing literature on Chief Knowledge Officers (CKOs) focuses on individual characteristics and organizational context but fails to convincingly address the issue of process dynamics in terms of effective and ineffective CKO moves and strategies. In order to address this gap we review propositions from the management fashion, diffusion of innovations and issue selling literatures, and identify sets of effective and ineffective CKO process moves based on an empirical study of CKOs in large industrial and financial service companies in Germany and Switzerland. The paper proposes an agenda for future CKO research, and concludes with a set of guidelines for organizational practice.

KEY WORDS: Knowledge management, implementation, innovation diffusion, management fashion, issue selling

RESUME:

La littérature existante concernant les "Chief Knowledge Officers" (CKOs) traite des caractéristiques individuelles ainsi que des contextes organisationnels, mais ne donne pas de réponses convaincantes quant aux stratégies concrètes que ces acteurs choisissent pour assurer la mise en œuvre de leurs projets de "knowledge management". Pour fournir des éléments de réponse à cette question, nous nous appuions sur des recherches portant sur les modes managériales, la diffusion des innovations, et les processus de "issue selling" organisationnel. Nous nous basons sur une étude empirique menée auprès d'un échantillon de CKOs dans plusieurs grandes entreprises en Allemagne et en Suisse afin d'identifier des stratégies efficaces et inefficaces pour la mise en œuvre de projets de "knowledge management". Notre article propose un agenda de recherche et développe un ensemble de suggestions pour la pratique organisationnelle du "knowledge management".

MOTS CLES: Knowledge management, mise en œuvre, diffusion d'innovations, modes managériales, issue selling
INTRODUCTION

Over the past decade, knowledge management has firmly established itself as a field of both scientific inquiry and managerial action. One of the indicators for the ongoing institutionalization of knowledge management in the corporate world is the creation of management positions with an organization-wide responsibility for the development and implementation of knowledge management practices. Denominations and titles for such positions vary significantly (Copeland, 1998). In the literature, they are most commonly labeled "Chief Knowledge Officer" or "CKO". In a general sense, the CKO defines a corporate knowledge management agenda, introduces appropriate tools and concepts, supports and/or pulls together decentralized knowledge management initiatives, and creates a general organizational context conducive to the acquisition, development, sharing and use of organizational knowledge (Probst, Raub and Romhardt, 1999). Throughout this paper we use the term "CKO" as a shorthand for individuals who assume a formally assigned responsibility for such CKO tasks, independently from the actual designation of their position.

Given the relative newness of knowledge management in general and the CKO role in particular, research on the individual and organizational variables affecting the outcomes of CKO activities is still limited and at an early stage. This paper aims at contributing to CKO research through the development of propositions concerning the relationship between the individual strategies CKOs follow in order to develop and implement knowledge management initiatives and their effectiveness in terms of entrenchment of knowledge management practices and the enhancement of a CKO's organizational position.

In order to do so, we first review the existing literature on CKOs and point out several shortcomings, especially regarding the role of individual CKO strategies and process moves. The second section outlines the general theoretical framework underlying our research. A particular emphasis is put on the integration of ideas from different theoretical traditions including management fashion research, innovation diffusion, and issue selling. The third part of this paper outlines the methodological premises and details the empirical ground on which our research proceeded. The fourth section
presents the findings from our empirical work. We conclude this paper with a discussion of effective CKO moves, an agenda for future research, and a set of recommendations for organizational practice.

1. Review of the CKO Literature

The existing literature on CKOs is both limited in scope and depth, and mostly descriptive in nature. Most contributions focus on only one or two out of the following four aspects of CKO work: content of CKO tasks, required CKO competencies, CKO personality traits and profiles, and formal position and available resources as principal determinants of CKO work context.

1.1. CKO tasks

In their least sophisticated form, the description of CKO tasks emulates checklists of well-defined activities such as identifying skills, knowledge and expertise, managing patent portfolios, establishing knowledge inventories, establishing information systems or collecting best practices (Guns, 1998). Some authors combine these basic activities into more generic knowledge management processes. Stewart (1998: 154), for instance, summarizes CKO work in two types of activities, "collection and connection". Bonner (2000) characterizes it as the activity of locating, capturing, distributing and creating knowledge. Another, more comprehensive list established by Herschel (2000) includes developing a vision for knowledge management, promotion of a knowledge agenda, designing of a knowledge architecture, securing funding and measurement of results. These frameworks remain exclusively descriptive and add only little value to established generic "building blocks" models of knowledge management (e.g. Probst, Raub and Romhardt, 1999).

1.2. CKO competencies

Fewer scholars focus on listing competencies for aspiring CKOs. Guns (1998), for example, identifies interpersonal communication skills, visionary leadership, business acumen, strategic thinking, change management and collaborative skills as the key competencies a CKO should have. According to Earl and Scott (1999), CKO competencies can be mapped in two dimensions. On one hand, CKOs should combine skills as "technologists" (investing in IT) and "environmentalists" (investing in social environments). In the second dimension, their leadership skills should encompass the
ability to work as "entrepreneurs" (starting new activities) and "consultants" (seeding own ideas and supporting those of others). In a similar vein, Davenport and Prusak (1998) list specific experience with knowledge management, knowledge-oriented organizations and technologies, a high level of knowledgeability directly related to the CKO's professional stature and personal experience with the primary processes of the business as key individual competencies.

1.3. CKO traits and profiles

Some authors go further in characterizing CKOs in terms of ideal profiles or combination of personality traits. It seems commonly accepted that CKOs have to possess "the right temperament" (Hibbard, 1998: 170) enabling them to be at ease with fast change, take calculated risks, be dissatisfied with the status quo and able to integrate different elements. Personality, it is argued, plays a role because CKOs typically operate through "persuasion and personal influence" (Bonner, 2000: 36). The idea of a "must have" list of personality traits for CKOs is extended by Earl and Scott (1999). Their assessment of CKO personalities finds higher than average scores on extroversion and openness, which, according to the authors, indicate a readiness to build up relationships and experiment with new approaches. The CKOs' lower than average score on emotionality is interpreted as an indicator of their ability to resist stress related to their position and adopt an optimist stance allowing them to overcome problems.

1.4. CKO position

Most attention in the literature is given to the particular context CKOs operate in, and to the amount of resources devoted to the position. Copeland (1998) asserts that most CKOs report to a Chief Information Officer (CIO). The CIO typically deals more with IT issues, while the CKO focuses more on contents. Others question the effectiveness of this structural arrangement. Herschel (2000), for example, argues that the CKO, in order to enjoy a high level of status and authority, should work neither under a CIO nor a Human Resources Manager. It is frequently argued that "high level clout" (Gross, 2000) is the principal prerequisite for the key roles of a CKO: breaking down organizational hierarchies and fostering knowledge sharing.
Most authors emphasize the importance of a "supportive organization" (Bonner, 2000) regardless of the particular hierarchical position a CKO holds. While this entails elements such as the level of trust among employees and a strong belief in the value of learning and knowledge, the most important characteristic of a supportive organization seems to lie in "visionary senior leadership" which strongly values knowledge management (Bonner, 2000: 36). This view resonates in Coleman's (1998) contention that successful CKOs enjoy enthusiastic support of their organizations' (top) management, as well as in Earl and Scott's (1999: 36) analysis of CKO budgets and staffs: the "most important 'resource' is CEO support and sponsorship".

1.5. Conclusions on CKOs and the CKO literature

Existing research on the role of the CKO shares some characteristics. Firstly, most articles are either descriptive or purely normative in nature. Secondly, articles containing a prescriptive element share a tendency to link CKO effectiveness to CKO traits and competencies, and to the type of context in which a CKO works. Thirdly, only few contributions consider the process component of CKO work which consists in translating KM into a local organizational reality and diffusing its principal ideas to constituencies throughout an organization. For instance, while most authors seem to agree that top management support is essential, few actually analyze how CKOs go about "preaching the gospel of knowledge management" (Tobias, 2000) in order to gain this type of support. Rare exceptions can be found in the work of Guns (1998) who provides anecdotal evidence of how CKOs get attention from senior management, or Earl and Scott's (1999: 31) emphasis on the importance of selling knowledge management to corporate management, walking around and focusing on partners.

From our own experience and prior research in the field of knowledge management (Probst, Raub and Romhardt, 1999; Raub and Rüling, 2001) we tend to agree with the general assertion that considerable differences exist in the missions, organizational integration and resource endowment of CKO positions in different organizations. We would also affirm that "typical" CKOs originate from a variety of educational and functional backgrounds, and prior organizational roles. Their biographies are interesting, because most CKOs "are not single career-track people" (Earl and Scott, 1999: 34). Moreover, CKOs not only originate from different backgrounds but also
focus on a great variety of tasks, including initiatives as diverse as the development of knowledge sharing platforms, communities of practice, Intellectual Property Management and the measurement of Intellectual Capital.

We would argue, however, that the focus in much of the literature on particular personality traits, competencies as predictors of CKO effectiveness is inappropriate exactly because of the variety of CKO origins, roles, tasks and audiences. The same is true for hierarchical arrangements and resource endowments. Indeed, the existing literature does not provide evidence for an unambiguous relationship between CKO position and effectiveness across particular contexts and processes. What appears as a facilitating factor for change in one situation easily becomes an obstacle for change in another context (Molinsky, 1999). The visibility of a CKO, for instance, may be an important means for mobilizing energies behind a knowledge management initiative, but at the same time creates the risk that the initiative is perceived as being primarily in the personal interest of the CKO.

Instead of concentrating on the analysis of static attributes of CKO positions and individual characteristics of their incumbents, we feel that CKO research should focus more on concrete process moves and the strategies CKOs employ in translating knowledge management to corporate audiences and spreading it to local constituencies.

2. Theoretical framework

Researching CKO process moves and strategies requires an analysis of how CKOs construct their roles, choose their organizational target audiences, establish linkages with other actors, make use of media and rhetoric, and relate to existing initiatives and different internal and external allies.

The research presented in this paper seeks to complement the existing CKO literature by drawing on three different literatures: management fashion research, diffusion of innovations, and issue selling in organizations. In a prior project on knowledge management we have argued in more detail that the development of knowledge management can be framed in terms of management fashion (Raub & Rüling, 2001). Despite its important contributions, this literature, however, tends to concentrate on
the "supply side" of popular management concepts. Demand side actors and strategies remain largely unexplored (Rüling, forthcoming). Here, we found that some of the literature on the diffusion of innovations (e.g. Rogers, 1995) provides valuable insights into the strategies of various actors in the process of innovation diffusion. The innovation diffusion literature, however, lacks an emphasis on the particular organizational setting CKO activities occur within. This characteristic of typical CKO activities is addressed in yet another stream of organizational research which concentrates on issue selling, in other words: on how organizational actors go about in prompting the attention of higher level management in order to get support for an issue they want to promote (e.g. Dutton et al., 2001).

2.1. CKO moves and the management fashion literature

In its current state, the management fashion literature addresses a variety of issues including the processes that prompt the adoption or rejection of new techniques on an organizational level (Abrahamson, 1991), the different players and their influences in an overall management fashion setting process (Abrahamson, 1996; Mazza and Alvarez, 2000), the factors influencing the development of management fashions over time (Abrahamson and Fairchild, 1999), as well as the characteristic discourses associated with the spread of popular management concepts (Kieser, 1997; Abrahamson and Fairchild, 1999) and the potential payoffs for organizations that adopt fashionable management techniques (Staw and Epstein, 2000).

Bibliometric evidence suggests that knowledge management has become fashionable among management scholars and practitioners alike (Raub and Rüling, 2001). This assertion is important insofar as fashionable management concepts follow particular dynamics. A particular characteristic of management fashions is that they are subject to strong institutional pressures. Abrahamson (1991; 1996) for instance argues that shared belief in the superiority of a particular management concept among managers is one of the principal drivers for the emergence of management fashions. While management fashions on one hand often respond to real performance gaps in organizations, they also spread through processes of mimetic or normative isomorphism (DiMaggio and Powell, 1983). Analyzing the spread and adoption of knowledge management from a management fashion perspective puts an emphasis on these institutional pressures.
While the fashionability of a concept provides attention within and among organizations and typically contributes to providing resources for implementation of the concept, there is a particular risk involved which is due to the arbitrariness of fashion swings. In other words: while it can be tempting for an actor to ally himself with a fashionable concept, he needs, at the same time, to develop a strategy for ensuring the sustainability of his involvement with a management fashion. In a prior study, one of the authors of this paper has identified some of the strategies managers develop in order to reduce the risk of "drowning" in the case a popular management concept goes out of fashion (Rüling, forthcoming).

Looking at knowledge management as a fashion further implies that an organization's adoption of knowledge management programs is often more outside driven than actually a response to organizational performance gaps. This might create a paradoxical and/or ambiguous role for the CKO who on one hand has to respond to institutional pressures (typically upwards and externally oriented) and on the other hand has to develop an intelligible reading of knowledge management as a concept that actually responds to performance gaps and creates value within the organization. Here, the prime task of the CKO becomes one of "editing" (Sahlin-Andersson, 1996) and "translating" (Czarniawska and Joerges, 1996) the popular concept of knowledge management into an organizational business reality. The major challenge for a CKO from this point of view might consist in balancing these two sides of knowledge management.

A related question is how to deal with the fashionable label, in other words: the term "knowledge management" itself. Prior research has shown that organizational actors share a general tendency to avoid the active use of such labels, or that they are at least aware of the potential dangers related to the use of words and labels that refer to concepts that are generally recognized as being fashionable within a particular field (Rüling, forthcoming). On the other side, the fashion label itself can become an important rhetorical device on which actors can capitalize in the development of organizational programs.
What can be concluded from the discussion of CKO moves in the light of the management fashion literature? Firstly, management fashion literature is interesting for understanding the general context within which a CKO relates to the concept of knowledge management. Clearly, knowledge management is not a concept like any other, but a concept that is -- at least to some extent -- marked by fashion dynamics. Secondly, considering knowledge management from a fashion perspective provides some hints concerning the particular situation a CKO is acting within, and allows to develop first tentative hypotheses concerning the type of positioning he or she will most likely adopt. These include strategies of risk reduction, and the development of a double rhetoric which on one hand responds to the institutional pressure side, and on the other hand stresses the hands-on business value to be generated through a concrete, pragmatic knowledge management initiative. However, a shortcoming of the management fashion framework is, thirdly, that it does not provide any information about how a CKO might actually go about in trying to diffuse (and anchor) KM within his organization. At this point we suggest turning to the diffusion of innovation literature and try to understand CKO moves as the strategies of a "change agent" (Rogers, 1995).

2.2. CKO moves and the diffusion of innovations

A particular line of argument within the vast literature concerned with innovation and organizations focuses on the role of different actors in innovation diffusion. This literature puts an emphasis on the impact individual "idea champions" have on the diffusion of particular techniques or concepts (King, 1990). When these "idea champions" are formally mandated with diffusing of a technique, they can be referred to as "change agents" (Rogers, 1995).

In his seminal review of the innovation diffusion literature, Rogers (1995) outlines a set of process moves that appear related to change agent success: According to Rogers (1995), the main role of change agents consists in assuring a communication flow which (1) matches his clients' (i.e. potential adopters') needs, and (2) provides himself and the change agency (i.e. the unit that has mandated the change agent) with feedback on the clients' perceptions and experiences of the innovation. In other words: The primary role of a change agent consists in relating the change agency (here: typically top management) and its clients (here: potential KM users).
According to Rogers (1995) the typical change agent situation is characterized by a high degree of heterophily, in other words: The change agent is rooted in a world that is normally very different from the social and experiential world of both his clients and the change agency. A basic problem of change agents in such a position is that their impact on clients depends to a large degree on their credibility in terms of expertise and trustworthiness as perceived by the client. Credibility attributed in a social situation tends to be inversely related to the degree of heterophily between the involved actors. In other words: Credibility is positively related to closeness in terms of experiences, values, background, etc. of change agents and clients. In relation to the CKO process moves we would expect the degree of heterophily among the change agent and his clients play a role for the adoption of different strategies of securing credibility.

As a conclusion, Rogers (1995) proposes eight general strategies or process moves that appear to be positively related with change agent success: (1) the extent of change agent effort in contacting clients, (2) the adoption of a client orientation instead of a change agency orientation, (3) the degree of compatibility of diffusion programs with clients' needs, (4) change agent empathy with clients, (5) change agent homophily with clients, (6) credibility of the change agent as perceived by the client, (7) the change agent's active use of opinion leaders, and (8) the change agents' success in increasing the clients' ability to evaluate innovations by himself.

This list provides us with an important set of possible CKO moves for enhancing the organizational adoption and sustainability of knowledge management initiatives. A central message is that closeness of a CKO to the final users of a knowledge management system is paramount. However, this brings us to one of the major shortcomings of Rogers' (1995) discussion of change agent moves with respect to the question we address in the present paper: Most studies referred to by Rogers (1995) are situated in a context of the diffusion of innovations and/or policies in areas like farming or public health, and their emphasis is naturally not on the relationships of the different actors involved within an organizational setting.
It appears to us that the role of a CKO involves challenges different from those of the change agent role outlined by Rogers (1995). There are several additional elements to be looked at, including the question of identifying who actually is the change agency, i.e. the organizational actor mandating the change agent in the case of a particular knowledge management initiative. Relationships around organizational innovation are often circular and move around hierarchical and structural dimensions. The initiative to adopt and introduce a new management concept is not always taken at the top, but by particular actors who try to put a particular issue on an organization's agenda. Here, the issue selling literature (see below) promises to provide a number of insights. An additional problem is related to the fashionability of knowledge management (see above): the fashionability of the concept may lead to changes in the policies of the change agency itself, hence the need for the CKO to keep his issues open enough to survive possible policy changes.

2.3. CKO moves and issue selling

The recent literature on issue selling concentrates on the moves actors make in "selling" ideas to different audiences within a particular organizational setting. Thus, it aims towards studying the "often unnoticed acts of change agents, below or outside organizations' top management groups, who invite consideration of some issues and not others" (Dutton et al., 2001: 717). More specifically, issue selling research analyzes the way organization members "package" particular issues and design a selling process in order to direct top management attention towards specific issues with the ultimate goal of permitting substantive action on those issues (Dutton and Ashford, 1993). Issue selling activities have been examined in a number of empirical studies (e.g. Dutton et al., 1997; Ashford et al., 1998).

The issue selling approach appears very appropriate for analyzing the activities and process moves of CKOs. The introduction of a fashionable management concept into an organization can be conceptualized as a case of issue selling in the sense that it represents an organizational change process and that it requires attracting managerial attention towards the new issue (Dutton et al., 2001). Effective issue selling moves identified in the literature include packaging moves with an emphasis on presentation of issues, and bundling, i.e. connecting issues to other, already accepted issues, involvement moves directed at the formal and informal involvement of different
target groups within the organization, and a third category of moves related to managing the issue selling process by using particular types of media, preparation, and timing. Moreover, the effectiveness of issue selling relies on a particular set of contextual knowledge organizational actors need to dispose of in order to be able to devise their issue selling strategies.

In summary, our research will have to integrate ideas from all three theoretical traditions briefly sketched out above. From the analysis of knowledge management as fashion we take focus on institutional pressures, and try to be particularly attentive to the strategies individual CKOs develop for translating the fashionable into organizational reality, and to the strategies that allow CKOs to capitalize on the fashionability of the concept on one hand while at the same time reducing the risk of attaching one's image and position too much to a fashion whose popularity is necessarily limited in time. From framing of CKO as a change agent in the sense of the innovation diffusion literature we take the process elements that appear to be related to change agent success in the more general setting of policy diffusion and try to find out in which way they correspond to particular strategic moves we can identify among CKOs. And finally, we use the issue selling literature as a basis for providing additional insights in CKO selling strategies that might be especially relevant in an intra-organizational context.

2.4. Conceptual framework

The general conceptual framework underlying our empirical research focuses on CKO process moves as a means of transforming a particular context consisting of a constellation of characteristics that are related to the organization, the particular set-up and endowment of the CKO position and individual CKO characteristics into organization level outcomes (see figure 1).

The context in which CKO moves are situated includes for instance the resources and position in the organization structure characterizing a CKO position, the support and commitment to knowledge management adoption and implementation in an organization, the CKO personality, background and networks, the organization's history and past experience with the adoption of popular management concepts, and
the concrete business needs and performance gaps present at different levels within the organization.

For the outcome of CKO process moves, we distinguish between the consequences of the CKO moves for the status of knowledge management activities in the organization on one hand, and the impact the CKO moves have on the context in which his or her actions take place, on the other. Considering not only the advancement of the knowledge management initiative, but also the impact of CKO moves on the context, goes beyond the static orientation of much of the innovation adoption literature. In fact, change agent moves impact not only adoption behavior but over time also change the context in which these moves are situated. This seems especially true for change initiatives that occur in an organizational setting where the feedback of change agent moves on the concrete context of his or her work is normally more immediate than in large scale policy diffusion.

The conceptual framework underlying our empirical work relates two additional ideas: Firstly, we propose a distinction between the adoption and the entrenchment of knowledge management practices (Zeitz et al., 1999). Adoption means that an organization or particular actors within an organization acknowledge using or being willing to use a particular technique, whereas entrenchment refers to "the embedding of practices such that they are likely to endure and resist pressure for change" (Zeitz et al., 1999: 741), in other words: a situation in which an innovation is not only adopted but its use secured on a sustainable basis. And secondly, we will try to conceive of the

**Figure 1**: Conceptual framework
context of CKO moves not as objectively given but as strategically enacted by the concerned actors (Weick, 1995).

The distinction between adoption and entrenchment is important for our conceptualization of effective and ineffective CKO moves. For the purpose of our research, we call a move effective if it apparently leads to entrenchment of knowledge management practices in an organization, and at the same time contributes to enhancing the CKO's position within his organization and to making the organization in general more receptive to further knowledge management initiatives. This definition of CKO effectiveness reflects Rogers' (1995) claim that sustainability should figure among the principal indicators for innovation diffusion success and explicitly excludes success measures that are solely based on adoption rates at one point in time.

3. Research methods

As outlined above, our study aims at exploring the relationship between CKOs' process moves and the effectiveness of the organizational implementation of knowledge management practices. The ultimate goal of the underlying research is to contribute to a better understanding of the dynamics of knowledge intrapreneurship within organizations. Within this overall direction, the present study aims at developing propositions related to the overall conceptual framework outlined above.

Our review of the existing CKO literature has highlighted a rather limited focus on the static aspects of CKO roles and responsibilities. In order to concentrate on the process side of CKO work, our study will have to build on a more qualitative, inductive research approach. The guiding principles of our research stem from grounded theory, a theory building approach that encompasses an iterative process of data collection and data interpretation (Glaser & Strauss, 1967; Strauss & Corbin, 1990).

We have chosen to address a population consisting of all the companies included in the DAX 30 (Germany) and SMI (Switzerland) stock market indices. The main reason for targeting large firms was our expectation that only companies above a certain size will have the necessary resources to appoint a CKO or similar position. We further
decided not to undertake any segmentation along particular industries or company types at this stage of the research. Depending on the results of the ongoing analyses, we may follow this option in the future.

Our data collection strategy consisted of semi-structured interviews lasting between 45 and 90 minutes. In the interviews we first asked the participants to provide general information pertaining to their organization and position. Participants were then asked to describe in detail several concrete initiatives or projects aimed at the development and implementation of knowledge management. Special emphasis was put on the collection of information that would allow us to later-on classify an episode as either effective or ineffective. Interviews were fully transcribed by the researchers. Our preliminary data analysis involved intensive reading of interview transcripts, creating a first inventory of CKO strategies, and developing a template coding approach (King, 1998). The initial template, which served as a starting point for coding, was developed along the lines of the conceptual framework outlined above and on the basis of our reviews of the CKO, management fashion, innovation diffusion, and issue selling literatures. In line with the grounded theory approach, the present paper reports preliminary findings based on the analysis of the first eight interviews.† According to the ideal of iterative research the results reported here will provide the starting point for a second round of interviews which may eventually be backed up by a number of comparative case studies.

Our research approach has several limitations. For the time being, we do not dispose of data over a longer period of time allowing for an independent assessment of CKO effectiveness. Our assessment of effectiveness therefore clearly depends on the participants' self-evaluation. However, on the basis of the assumption that interview participants tend more towards self-enhancement than to its opposite, we suppose that we can with reasonable confidence assume that initiatives, classified by the participants as ineffective, lacking sustainability, or negatively impacting either their individual position or the organizational context for knowledge management, could be classified as ineffective. Another shortcoming of our study at its present, explorative

† The sample includes CKOs of one or several divisions or companies within the following groups: ABB, DaimlerChrysler, EADS, Phonak, Siemens, SwissLife, and Zurich Financial Services.
stage is the limited generalizability of its findings. We hope to overcome this limitation in the future by successively including additional companies with the goal of arriving at a sample that would be representative for our target population. It is for the same reason that we are not able, for the moment, to single out influences of macro-organizational and environmental contextual factors like, for example, organization size or industry.

In order to enhance the power of our study, we will, in the future, on one hand extend the company base, and on the other hand develop a number of case studies which would include larger numbers of actors (including representatives of the CKOs' target populations) for selected organizations. And we will actively seek and include study participants' feedback on our findings and interpretations.

4. Findings: Process moves and CKO effectiveness

This section reports on CKO process moves, and the combination of particular moves to implementation strategies from our initial data set. The underlying data consist of interview transcripts and notes from interviews with eight CKOs of large industrial and financial service companies in Germany and Switzerland.

4.1. CKO position and individual characteristics

A number of common elements emerge as to the positional and individual characteristics of CKOs. Most of them enjoyed high CEO commitment, but at the same time asserted that second level executives and board members as target audiences were the least receptive to the implementation of knowledge management. In several cases, support for knowledge management by the CEO was so strong that the initiative began to be perceived the CEO's personal initiative. According to several participants this situation bears the risk that the knowledge management initiative is stopped or stalled in the case of a CEO change. Organizational events like mergers or acquisitions present additional threats to entrenchment if the knowledge management project itself is perceived as a single individual's initiative.

In general terms, the adopting organization's overall motivation emerges as an important factor. In the case of one discontinued project, the principal driver for
knowledge management adoption on the corporate level was the CEO's sentiment that his company should "do something" about knowledge management. This kind of "we too" motivation led to an organizationally weak CKO position, staffed with an organizational outsider. An outside CKO with a relatively weak position runs a high risk of not being able to clearly position himself in the tension between HR versus IT, which may in turn result in a vague, rather abstract and deductive general approach.

The difficult standing of outsiders in a CKO position is confirmed in another episode. In this case, knowledge management was set up as a project within IT development. The organization hired an external project head who proposed a deductively developed knowledge management project. Starting with the group vision he developed a knowledge management strategy, which was then broken down into concrete knowledge management projects. With some of the IT infrastructure already set up, some of the knowledge management projects were negatively perceived by users as a means to ensure the utilization of the expensive technological tool already in place.

4.2. General characteristics of CKO moves

Independently of the effectiveness of implementation efforts in the concrete episodes, the interview participants appeared to agree on several issues. In all cases, participants claimed to adopt a very pragmatic orientation concerning the definition of knowledge management within their particular organizational context. They all stressed user orientation and tended to downplay the importance of their own formal or hierarchical position. Moreover most participants also presented themselves as largely "immune" to fashion, and identified performance gaps, or a potential for value creation through the sharing of knowledge across the organization as the principal drivers of their organizations' knowledge management initiatives.

In several cases, the decision to engage in a corporate knowledge management project came up in senior management meetings. In other organizations, the demand for a corporate knowledge management function was initiated by potential users and already existing knowledge management initiatives, whereas in a few cases the decision to engage in knowledge management was taken by the CEO himself.
All participants were highly conscious about the difference between adoption and entrenchment and affirmed the need to develop sustainable knowledge management solutions. Most participants also consistently argued that entrenchment could only occur on the basis of concrete applications, tools, and local initiatives. In the same vein, several participants mentioned the need to translate abstract knowledge management concepts into a "local language", and to find concrete organizational issues to match abstract notions like, for example, "intellectual capital". In this context, several participants mentioned a paradox in their daily work: While concepts like knowledge management need to be very open and broadly defined in order to receive widespread support within an organization, they have to be at the same time concrete enough to appear relevant to particular groups of actors within the organization. Here, rhetoric and the "framing" of a concept for different audiences seem to play an important role.

Interestingly, most participants also mentioned that they rarely worked with external consultants. A recurrent issue in relation to the use of consultants was that their concepts were "too abstract, too concept oriented" and too much focused on selling standard solutions -- in most cases based on a particular IT tool. The study participants did not refer to consultants, but to external benchmarking and academic contacts as the most important providers of ideas and concepts.

4.3. CKO moves related to high effectiveness

The implementation of KM initiatives appears to be a case of a circular process that can be virtuous or vicious in nature. Success of early KM initiatives typically enhances an organization's openness to additional implementation initiatives, whereas the failure of an initial project can create a situation in which it is difficult to propose additional knowledge management solutions. Throughout the implementation histories we studied, we identified highly effective CKO moves in seven areas: basic diffusion activities, definition of target audiences, communication, organizational embedding, relationship focus, process timing, and the enhancement of the CKO's position. The importance of these moves is in many cases confirmed by descriptions of low effectiveness episodes. In other words, the CKOs failure to enact theses moves appears to be related with a lower probability of entrenchment of knowledge
management practices and appears to have a negative impact on organizational conditions for further knowledge management initiatives.

**Basic diffusion activities.** Basic diffusion activities of effective CKOs included the adoption of an approach of actively selling and marketing knowledge management to organizational constituencies. This typically involved the identification and bundling of existing knowledge management activities on different levels, relating knowledge management to initiatives in other areas, breaking up the broad idea of knowledge management into concrete issues, and developing a relatively small set of one to three functioning core applications that could serve as "showcases".

In a similar vein, focusing on specific needs of the "customer" takes on an important role. In some cases, ineffectiveness of implementation was due to an unclear identification of business value for potential users. As a reaction to low acceptance, the CKO further concentrates on promoting abstract issues instead of focusing primarily on the people and relationship side of the implementation process. In an additional episode, knowledge management was introduced as an overall hot topic without giving it a company specific edge. Despite the integrative rhetoric used by the CKO, it appeared to line management as an unnecessary add-on to existing initiatives.

In all success episodes, the entrenchment of knowledge management practices relied on the use of networks and networking within the organization. These networks were mostly built around local "champions", typically country or regional managers, which enjoyed high credibility within the organization, and who had a double function: legitimating the CKO's initiatives and serving as communication relays between the CKO and the local networks. Several success cases distinguished themselves by the CKO's efforts to enhance the visibility of these internal networks by trying to position them as a forum for high level informal exchange and some sort of intra-organizational talent pool. It therefore became interesting for individuals to join the knowledge management network in order to enhance their own career position within the organization.

In a negative case, a CKO created several parallel and unrelated networks at the same moment in the diffusion process, each concentrating on a specific issue. Here, the
disconnection of actors involved in knowledge management initiatives resulted in a lack of visibility and incentives for winning over local champions. This prompted one of the most important conditions for low effectiveness of knowledge management implementation: the absence of promoters in local line management.

According to several participants, the final step towards entrenchment beyond strong local networks was to create durable changes in the organization structure. Organization changes based on principles of knowledge management (e.g. the creation of cross-divisional practice boards with own resources and decision power) served both as symbols for the seriousness of the knowledge management initiative and as a means to provide effective working arrangements for knowledge management activities.

**Target audiences.** Effective CKOs typically targeted audiences at different levels. The principal focus was on line managers who were often made responsible for local knowledge management initiatives. In these cases, line management itself became the principal internal promoter of knowledge management, and the CKO took on a coaching and sponsorship role. Higher line management within divisions constituted a second important target group in order to create pressure on division heads and corporate executives, and to generate a pull-effect in favor of higher level adoption and sponsoring of knowledge management initiatives. Some CKOs found this indirect approach more effective than directly targeting division heads. Outside constituencies were the third important target. Several participants used external recognition as a driver for internal acceptance and in order to create an additional pull effect. In two cases, the CKOs lobbied external rating agencies and investors in order to promote the inclusion of knowledge management activities into the criteria used to establish company ratings.

**Communication.** According to most participants, communication played an important role in effective knowledge management initiatives. The most frequent strategy consisted in using the fashionability of the term "knowledge management" in order to get access to the target audiences, but at the same time providing clarification and concretion through well defined examples and showcases. Several CKOs reported to actively diffuse success stories, and to use external communication in order to create a
pull-effect in the organization. Moreover, most participants referred to the need of concentrating on very simple models and frameworks for framing and visualizing the principal elements of knowledge management.

**Embedding.** Embedding refers to a set of strategies participants used in order to adapt and anchor knowledge management in the target organization. Several CKOs asserted that implementation success depended on the identification of cultural specificities and the consequent remodeling and "translation" of knowledge management initiatives. One study participant, for instance, argued that he could not use "the language of the knowledge gurus" in his organization and its culture. Having a sense for the historically developed roles of particular individuals or departments seemed equally important. Here, another participant referred to the problems of switching from traditional "taker" to "provider" roles in information exchange.

Embedding is further promoted by a rhetorical focus on the continuity and complementarity provided by knowledge management initiatives. In some cases, "piggybacking" (Raub and Rüling, 2001) was used as an effective strategy in order to reframe a successful existing initiative as a generic knowledge management issue ("Operative quality management or six sigma -- that's knowledge management tools."). According to interview participants, an effective strategy for getting senior management support consisted in linking knowledge management with strategic issues or tying it into an existing top management vision of overall corporate transformation.

**Relationship focus.** Several reported CKO moves addressed the nature of the relationships constructed during knowledge management implementation. For effective CKOs, the relationship building part of a knowledge management initiative was HR rather than IT driven. In general, effective CKOs prefer personal contacts, relationships and network building to the use of abstract systems and impersonal communication, especially in the early phases of an implementation project. Several participants asserted that cooperation was the principal ingredient for effective implementation, and that cooperation in turn required to proceed with a clear people focus.
Cooperation and relationship building was supported by a CKO approach that focused on coaching rather than imposing solutions. Acting as a solution provider instead of assuming a coaching role necessarily de-responsibilizes local management. In one episode, the CKO saw his own role as an internal service provider and proposed to entirely run a newly created community of practice for one year. The users were enthusiastic in the beginning but were not made responsible for the further development of their network base. After several weeks, initial engagement and motivation steadily decreased. In another case, solution development was mainly centrally driven. In the research interview, the CKO in this case argued that he might end up using hierarchical pressure in order to ensure utilization of the system put in place. To the CKO, use of hierarchical pressure appeared as only alternative compared to the other extreme of putting up a solution available and passively waiting for users to adopt the system. The ineffectiveness of local adoption and the lack of understanding on the side of the CKO as change agent were resumed in the CKO’s assertion that "the people are not mature yet; they don't understand what they can do with our beautiful systems".

**Process timing.** We identified appropriate timing as an additional prerequisite for effective implementation. Timing appeared on two levels: Firstly, effective CKOs managed to match their knowledge management activities and discourses with the lifecycle the concept went through within the adopting organization. Secondly, they were able to set priorities according to the different phases in the implementation process. Most important actors for network building were targeted first, and little time was "lost" in defining what knowledge management was "really" about -- many effective episodes were in the contrary characterized by a stepwise definition of "elements" of knowledge management once the project was under way. An additional issue in relation to process timing was the balancing of push and pull forces over time. While participants agreed that most projects needed an initial "push", effective implementation appeared to rely heavily on "pull" by potential adopters.

**Enhancement of CKO position.** A final set of moves enhancing implementation effectiveness concentrated on directly enhancing the organizational position of the CKO. Effective CKOs actively worked on enhancing their own role and visibility through external networking at conferences, or through interviews and case studies in
different media. These moves were effective insofar as the personal acceptance and credibility the CKO enjoyed in the organization appeared to be among the main drivers for implementation success. As in the case of top management support, the risk is that a CKO might be perceived as blending the organization's knowledge management initiatives too much with his individual projects. The challenge lies in enhancing one's position and at the same time avoiding the potentially negative consequences resulting from the perception that an initiative serves mainly CKO image enhancement.

5. Discussion : CKO strategies and dilemmas

Moves that contribute to overall CKO effectiveness can be resumed in four complementary implementation strategies: (1) Adopting a stakeholder approach in targeting different audiences, (2) providing concrete business value to users, (3) framing knowledge management as a people issue, and (4) building a decentralized diffusion system.

5.1. Adopting a stakeholder approach

The adoption of a stakeholder approach, in other words: tailoring communication and concrete diffusion activities to particular audiences can, in the case of knowledge management, be related to the fashion nature of this particular concept. Typically, some actors are more interested in the institutional side of the concept or, respectively, its adoption in an organization for legitimization purposes. In particular, this seems the case for top management. Others, in particular line managers, are interested in solutions to concrete business problems, whether labeled "knowledge management" or not. Based on the management fashion literature we would presume that the initial adoption is in many cases triggered by fashion dynamics. Here, one of the main tasks of a CKO will be, in a first phase, to satisfy the needs of his principal organizational stakeholders, typically the executive sponsoring his or her position. After initial adoption, however, sustained success will depend on the CKO's capacity in creating knowledge management adoption in line management.

Type and principal messages of communication efforts change in respect of audiences and timing of CKO activities. A central feature in communicating popular
management concepts resides in the claim of a concept's newness. Abrahamson (1996), for instance, argues that institutional legitimacy in management is principally conveyed by claims to rationality and progress. We had therefore expected that communication directed towards audiences with a stronger institutionally motivated interest in knowledge management would emphasize the newness and progress associated with knowledge management. This should especially be true towards top management, where knowledge management competes for scarce resources with other initiatives and interests. On the other hand, communication directed at potential users of knowledge management solutions was expected to build upon an integrative rhetoric and concentrate on the complementarity of knowledge management with existing approaches. Overall, our interview data support the assumption made in the issue selling literature that packaging strategies and rhetoric will be consciously adapted to different organizational constituencies.

In addition, the interview participants seemed to rely on different organizational audiences for the creation of both push and pull effects on knowledge management diffusion. While local users were targeted in particular by communication measures creating a pull effect (diffusion of success cases, internal benchmarking and communication), higher management (especially division heads) and particular individuals that could act as "organizational champions" were targeted directly in order to create a push effect in their line organizations together with a pull effect towards senior management on the corporate level. Senior managers on the corporate level were targeted both directly by the CKO and through an effort of using external stakeholders (e.g. journalists and rating agencies) in order to create an institutionally motivated interest in knowledge management.

5.2. Providing business value to users

Within the different stakeholder strategies chosen by the successful CKOs in our initial sample, potential users represent a particularly important group, demanding the transformation of relatively abstract concepts, theories and models into concrete business applications. Most interview participants agreed that successful diffusion of knowledge management primarily depended on a CKO's capacity to provide business value to the final users of the implemented knowledge management solutions. This contention clearly reflects Rogers' (1995) proposition that successful diffusion of
innovation depends on a change agent's client orientation. Knowledge management cannot become entrenched in the form of an abstract program; it has to be made tangible for local audiences. It seems a particular characteristic of knowledge management that it is relatively ill defined and therefore needs a considerable amount of effort for clarification and embedding initiatives into existing management practices. "Sensing" his organization and enabling local sensemaking around the core ideas of knowledge managements appears one of the principal tasks of a successful CKO.

5.3. Framing knowledge management as a people issue

In line with the general diffusion literature as well as with some of the particular traits of knowledge management -- especially its emphasis on the implicit, often intangible nature of critical knowledge --, successful CKOs succeed in framing knowledge management and its implementation as people issues. Ensuring the sustainability of knowledge management solutions requires that individuals understand the contribution of a knowledge management solution to their individual work situations. The eternal debate in theory and practice of knowledge management is around the relationship between IT and the more HR or organization development driven interpretations of organizational knowledge and knowledge management. The position shared by virtually all interview participants was that IT was needed in order to provide technological platforms, but that IT solutions alone could not guarantee the utilization of a given system. IT in this sense represents a necessary, but not a sufficient condition for the successful implementation of knowledge management initiatives. Some participants clearly distanced themselves from IT driven solutions. One CKO argued that all projects in his organization in which IT had had the lead were clear failures, and another participant argued that the present cost pressures and shortage of financial resources delivered many knowledge management projects from their too strong (and too costly) IT focus. In some cases, the choice of a ready made IT solution appeared as an option for a "least common denominator" by the organizational participants involved in developing a local knowledge management solution.
5.4. Building a decentralized diffusion system

Successful implementation of knowledge management in most cases involved the creation of decentralized diffusion systems close to the model developed by Rogers (1995). On one hand, this seems clearly related to the people orientation of the more effective implementation initiatives. In general a "people approach" promises to work best when local actors are made responsible for the development and implementation of their local knowledge management solutions. Secondly, it was argued by several participants that the sustainability of local knowledge management solutions would not be guaranteed if a central knowledge management function simply acted as a provider "giving away" ready made knowledge management solutions for free. In other words: Successful implementation demands not only that users are involved, but also that they assume (financial and operational) responsibility for their knowledge management solutions. It seems in addition that CKOs should keep some distance with the local systems. There are two reasons for this: Firstly, in order to avoid the risk of artificially keeping up systems that are not really needed by their users; and secondly, in order to isolate themselves from the risk of losing credibility by being too closely associated to the failure of a local initiative.

There are, of course, advantages in the utilization of a more centralized diffusion system as well (see the discussion in Rogers, 1995). We would argue that a successful CKO strategy would involve combining elements of the centralized approach to diffusion in order to create visibility and momentum in the early stages of knowledge management diffusion and rely on a more decentralized mode of diffusion in a second phase, in which the emphasis would be on creating viable knowledge management solutions on a local basis.

5.5. CKO dilemmas

Devising a successful strategy for knowledge management seems a difficult task. This is due to a number of dilemmas in which CKOs find themselves. As we have already pointed out in some of the arguments made above, a first dilemma lies in the fact that while much of the attractiveness and success of knowledge management among management audiences is related in the concept's openness and the possibility to connect the idea of knowledge as a critical resource to many different organizational issues, the concept itself needs substantial clarification and translation to an
organizational reality in order to be adopted by local actors. The challenge for the CKO is to find a balance between the right levels of abstraction and to find a way of keeping a discourse that frames the issue of knowledge management differently for different organizational audiences, while staying coherent as a whole. A second, related challenge lies in the fact that the knowledge management label in itself provides recognition and distinction, but that there exist basically no set of "natural" knowledge management practices that could easily be applied in a given organization. As a consequence, substantial "localization" is necessary, creating a dilemma for the CKO of defining his own role in the tension between push and pull dynamics.

Further, due to their self-attachment with a fashionable concept, most CKOs face a "double control problem" similar to the one identified in a recent study by Watson (1994) and consisting in securing the control over the issue of knowledge management within their organization while at the same time controlling their personal destiny within this organization, especially in the light of the relative precariousness of CKO positions that are project bound, subject to jealousy and competition for resources, and have typically only indirect influence on basic organizational value creation (making them rather vulnerable in case of increased cost pressure in situations of economic downturn). This might be another reason why network building is seen as crucial not only to implementation success, but also for CKO survival. In fact, the CKOs in our initial sample who experienced the strongest challenges to their position were the ones that did not dispose of an extensive intra-organizational network.

CONCLUSION

We have argued in the review section that both the recent practitioner oriented as well as the more research oriented contributions on CKOs tend to neglect the dynamic aspects of CKO work. We have then concentrated on discussing several theoretical traditions that could contribute to developing a framework for understanding the role of CKOs' strategic moves for the overall effectiveness of a corporate knowledge management initiative. In the second part of our paper, we have presented the first empirical findings of an ongoing study aiming at identifying generic strategic moves in the effective implementation of corporate knowledge management. The moves that
appear particularly effective for implementing knowledge management can be resumed in four strategies: (1) the adoption of a stakeholder approach, (2) providing business value to the potential users, (3) framing knowledge management as a people issue, and (4) developing a decentralized diffusion system. With several episodes of ineffective implementation we have tried to illustrate the outcomes of implementation initiatives that fail to develop a clear client orientation, build too much on IT solutions, or concentrate on centralized provision, maintenance and financing of knowledge management solutions.

For the time being, our research is clearly at an exploratory stage, and the findings and discussion presented here are preliminary results from a relatively restricted sample. Several issues have to be developed in the future. On the theoretical side, we will try to further integrate the different literatures outlined above to arrive at a clear set of propositions that can be assessed empirically. In order to do so, we will give more attention to the particular characteristics of knowledge management as a popular management technique, the particular types of moves developed in the issue selling literature, and the role of "enactment" (Weick, 1995; Coopey et al., 1997), in other words: the rhetorical mobilization of particular elements of an organizational context in shaping the perception and interpretation of knowledge management within an organization. On the empirical side, we will continue to work on the broadening of our data base. Following the ideal of an iterative research process, we will use the preliminary findings presented here to redesign our interview guideline and sampling strategy.

A field to be addressed in future research concerns the strategies of "knowledge intrapreneurs" in other areas than knowledge management. As we have argued above, some of the strategic moves that appear effective in the context of knowledge management implementation are related to particular characteristics of knowledge management as a popular management concept. It seems promising to compare the strategic moves identified here with the ones actors adhere to in the intra-organizational diffusion of concepts like total quality management, balanced scorecards, international accounting standards, etc. Such a comparison could help to sharpen our understanding of the diffusion dynamics of "administrative innovations" (Daft, 1978) in general. We are confident that the kind of research presented here will,
over time, not only contribute to the growing body of theoretical knowledge about the diffusion and adoption of management knowledge, but also provide valuable insight for firms that consider creating a CKO position and for individuals who find themselves in CKO roles.
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