How social accounts and participation during change affect organizational learning

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Abstract

Purpose – The purpose of this paper is to examine how the way change implemented effects organizational learning. More specifically, we study the relationships between the use of social accounts, participation and organizational learning in the context of strategic change. The use of social accounts and participation are often promoted during change, but up to this point, their influences on organizational learning have not been studied.

Design/methodology/approach – A multi-change and multi-organization study, using a critical incident technique (i.e. informants provide information from a specific change experience), provides the data for testing a set of theory driven hypotheses that link aspects of the change process to learning outcomes.

Findings – Findings show that social accounting and participation are positively associated with organizational learning, but that the influence of social accounting is negatively moderated by participation. Social accounts framed as threats to system survival were unrelated to organizational learning.

Practical implications – In order to maximize learning during change organizations should attempt to involve members with different values and expertise throughout the process. The use of formalized communication programs would add little to organizational learning if participative change processes are applied. Although threat appeals could be useful for creating readiness for change, their impact on organizational learning seem to be marginal.

Originality/value – For knowledge intensive and learning dependent organizations, the study provides some guidance to change management.

Keywords Organizational change, Social accounting, Learning, Change management

Paper type Research paper

Introduction

Agreement is broadening on the importance of generating organizational capabilities through the gradual building of firm-specific knowledge (Crossan and Berdrow, 2003; Henderson and Cool, 2003). This insight has led to an increased focus on organizational learning, which is seen as a collection of processes central to development of capabilities on which competitive advantage is built (Helleloid and Simonin, 1994; Liedtka, 1999; Kotabe et al., 2003). Learning is also an important vehicle for the ongoing adaptation of organizations to changing environmental requirements resulting in the maintenance rather than improvement of competitive position. Freeman and Perez (1988) see learning as firms’ and other institutions’ response to the need for adjustment in times of great uncertainty. Both outcomes of learning call for the creation of infrastructures where learning can be fostered and managed effectively. For example, Senge’s (1990) construction of a learning organization concept is based on a set of
assumptions regarding how organizational structures, processes and policies affect learning and how they can be actively managed in order to promote organizational learning. Much of the learning that takes place within an organization can, however, essentially be seen as by-products of the performance of tasks that are carried out for other purposes than generating new insights and new routines. As noted by Duncan and Weiss (1979), organizational structures and processes are seldom designed for improving learning, but for accomplishing core tasks effectively and efficiently. In this vein, literature on communities of practice is more concerned with learning as an outcome of ordinary work performed within an organizational context that may or may not facilitate learning rather than on how to develop optimal learning environments (Brown and Duguid, 1991; Raelin, 1997).

If learning is important to organizational performance, but is the outcome of processes that have been developed for and are performed within structures designed for other purposes, the relationships between such structures and processes and learning becomes an interesting area for research.

In this paper, a contribution to this area is made by focusing on how processes aiming at implementation of strategic change affect learning. More specifically, the aim is to advance the learning literature by exploring the relationships between organizational learning and the use of social accounting and employee participation during implementation of strategic change. Social accounts and participation are related, but still distinct aspects of a strategy implementation process. They are related, because both have been proposed as important determinants of reactions to change. Cobb and Wooten (1998) suggested that the process of giving accounts for important decisions that were considered as “adequate” by those affected would result in high perceptions of procedural justice. The use of participatory decision processes has also been argued to influence how those affected react to change. Participation has been hypothesized to increase commitment to the products of participatory processes, such as decisions made, and thus to exert a motivational effect on participants (Wagner III et al., 1997). Employees react positively to participation for many of the same reasons why they value social accounts. Social accounts and participation are conceptually related because both capture crucial aspects of information transmission and exchange between organizational members involved in and affected by change. The pick up and processing of information are key drivers of organizational learning (Huber, 1991).

The context of strategic change was chosen because several authors have pointed to the close links between strategy and learning (DeGeus, 1988; Senge, 1990; Hendry, 1996). In fact, some organizational learning seems to be an inevitable outcome of strategic change. The core assumption in this paper is that more or less learning is likely to occur depending on how the implementation process is structured. The rationale behind this assumption is presented in the next section.

Theoretical framework and hypotheses
The model to be examined in this paper is shown in Figure 1. It is argued that the level of organizational learning in the context of strategic change is positively influenced by the use of both participative rather than autocratic work styles and social accounting for communicating the rationale underlying the proposed change. Participation refers to a style of working whereby organizational members from different functions and
hierarchical levels work together in order to develop and implement a solution to an organizational problem. Social accounting is the activities performed by those in charge of planning and implementing change to communicate the reasons for the change to those affected by the change. Thus, both approaches to change involve communication between change agents and change recipients, and this communication is seen as a driver of organizational learning. Communication between the two parties is assumed to affect both generative and distributive learning. Generative learning is the creation of knowledge that is new to the organization. Distributive learning is the process of knowledge sharing whereby some organizational units transfer knowledge that is new to other organizational units.

However, the use of social accounting is seen as an inferior substitute for participation. Participation allows for interaction among organizational members, and this interaction is likely to affect learning in several ways. The use of participation creates arenas that facilitate dialogue among individuals and groups with different goals and experiential backgrounds (Chattopadhyay et al., 1999). By bringing together persons with diverse backgrounds to work on a common problem, both generative and distributive learning are favoured (Argote, 1999). The use of social accounts is seen as a way to fill communication needs of the organization that arise when change is developed in an autocratic manner. Autocratic processes leave change recipients with uncertainty concerning the rationale behind the change, why one particular change is favoured and with regard to the personal consequences of the change. Social accounts can alleviate some of these uncertainties (Cobb and Wooten, 1998), but they are less likely to arise when participation is used throughout the change process. Thus, the effect of social accounting on learning is believed to be negatively moderated by the use of participation. Also, the effect of social accounting is assumed to depend on how the account is framed. Negatively framed accounts are perceived as threats leading to individual and group level cognitive rigidity and are believed to reduce learning. Only positively framed accounts increase the level of organizational learning. In the following sections of the paper, the relationships specified in this model are elaborated.
Organizational learning

Organizational learning is a multifaceted concept as reflected in the variety of perspectives used in theoretical and empirical work in the area (Tsang, 1997; Edmondson et al., 2001; Douglas and Ryman, 2003). In this paper, we define organizational learning as “the development or dissemination of work-based knowledge that is perceived to be useful for improving organizational performance”. Working with implementation of strategic change is likely to generate many forms of knowledge, but especially in the domain of how to solve problems occurring during the implementation of change and related to the specific content domain of the change itself (e.g. entry into new product markets, reorganization or the design of incentive systems). Our definition focuses on potential behavioural change rather than actual, observable change. Use of the latter in definitions for empirical research is problematic for several reasons. First, there might be a long time lag between change in behaviour and change in organizational cognition. Therefore, valuable knowledge can result from organizational learning processes without immediately impinging on behaviour in the organization (Miller, 1996). Second, organizations can make changes in their behaviour, e.g. by mimicking other organizations that are not preceded by related cognitive change. The definition also acknowledges that organizations learn in two ways: by sharing knowledge that already exists in the organization and by generating knowledge that is new to the organization. Both forms of learning are potentially beneficial to the firm.

The organization may benefit from the sharing of knowledge in two ways. First, horizontal and vertical differentiation and the division of tasks lead to the development of knowledge asymmetries between individuals and groups in the organization. This implies that some individuals and groups are more knowledgeable than others in knowledge domains that are relevant for the performance of organizational tasks. The knowledge asymmetry creates a potential for improving performance by improving problem solving, decision making and the performance of other tasks in organizational settings that favour sharing of knowledge (Orr, 1990). Second, the sharing of knowledge may lead to higher levels of consensus regarding important assumptions about issues external (e.g. future market growth) or internal (e.g. the level of psychological attachment in specific parts of the organization) to the organization. Vertical and horizontal differentiation of organizations also leads to differences in the assumptions made by organizational members (Tyre and von Hippel, 1997). Research by Markósky (2001) indicates that the development of consensus scope, i.e. how many organizational members that share a set of assumptions about the strategy and its implementation, is a crucial aspect of the strategic change process. Consensus formation has been suggested to be important both in formulation and implementation phases of a strategic change process. Whyte (1989, p. 41) stressed that the “tasks, after all of all decision making groups is to produce consensus from the initial preferences of its members”. According to Floyd and Wooldridge (1992), effective implementation requires that organizational members act on a common set of priorities. Some of the empirical research on consensus has found it positively related to organizational performance (Hrebiniak and Snow, 1982; Dess, 1987), indicating that the formation of consensus is important to the outcome of strategic change processes.
Participation and organizational learning

Participation has been conceptualised in a number of ways to reflect the dynamic nature of the phenomenon caused by firms’ experimentation with different forms and structures for the general purpose of raising employee involvement in work. In this research the definition of Glew et al. (1995) is used as a theoretical point of departure. According to these authors, “the essence of participation is a conscious and intended effort by individuals at a higher level in an organization to provide visible extra role or role-expanding opportunities for individuals or groups at a lower level in the organization to have greater voice in one or more areas of organizational performance” (p. 402). Participation in the workplace has been presumed to lead to a number of positive outcomes. The general belief has been that employees tend to react positively to increases in the level of involvement in existing and new areas of organizational performance.

The idea that organizational practices directed at involving employees in decision-making could be conducive to learning is not new. Srivastava (1983) in his conclusion about organizational learning systems argued that:

Learning capabilities of an organization can also be enhanced by encouraging participative decision-making and increased communication among decision makers. Participative decision-making has been proposed by organizational development and change literature as a way of fostering harmony, worker satisfaction and increasing efficiency (Argyris, 1962; Bennis, 1961; Vroom and Yetton, 1973). Participation could also be a key facilitator of learning in organizations (p. 25).

Also, the broad involvement of organizational members is a central part of Senge’s (1990) concept of the “learning organization”.

However, to this point no studies have directly examined the relationships between participation and organizational learning. Three mechanisms by which higher levels of participation in strategy making and implementation would lead to increased levels of learning are proposed here. First, it is likely that the mere act of bringing people from different departments, different hierarchical levels and different educational and experiential backgrounds (Hambrick and Mason, 1984) together to work on common issues over prolonged periods of time is likely to produce new knowledge. This is because interdisciplinary discussions are positively related to innovation and creativity (Amabile, 1994). Creativity in an organizational context is defined as the creation of valuable, useful products, ideas, procedures or processes by individuals working together in a complex social system (Woodman et al., 1993). The proposition that creativity and new ideas spring from the interaction of different knowledge sets has found acceptance in knowledge literature (Simon, 1985) as well as in related fields such as social networks (Granovetter, 1973) and scientific literature on complexity (Kaufman, 1995). This indicates that generation of new knowledge is more likely to occur in processes characterized by high levels of participation. The positive relationship between generative organizational learning and the use of participation during change is also supported by literature situated learning in communities of practice (Orr, 1990, 1996) as well as organizational learning as social practices (Easterbury-Smith et al., 2000). According to this view, organizational learning occurs primarily through the sharing of experiences and dialogues among different individuals in a social learning system. Each member with different expertise acts interdependently in the change process by taking into account each other’s perspective.
in order to resolve diversities and reach consensus. For example, Orr (1990) showed that photocopy technicians benefit substantially from the social interactions with other team members to obtain new ideas for handling the work related problems. Research on group creativity has shown that group diversity tends to enhance creativity (Payne, 1990; Andrews, 1979) in particular when leadership is democratic and collaborative (Anderson, 1990).

Second, participation has been found to be positively related to motivation (Cotton et al., 1988). Motivation, in turn, can be expected to stimulate the search for new solutions rather than attempting to handle problems by activating stored routines. The active search for new ways to approach problems inherent in strategic change can lead to the development of new knowledge by replacing, deleting, or changing, current beliefs.

Third, participation can lead to increased sharing of existing individual or work unit level knowledge and the development of uniform comprehension of issues relevant to organizational functioning (Huber, 1991). As shown in work on social information processing (Salancik and Pfeffer, 1978), the sharing and transmission of knowledge is likely to be influential in groups working on ambiguous issues such as those arising during the planning and implementation of strategic change. Experimental evidence indicates that group members influence each other's assumptions and beliefs through communicating with one another (Thibaut and Strickland, 1956). Group members might also influence each other through nonverbal communication such as behaviour in meetings, facial expressions and the degree of preparation for meetings. Based on the above the following hypothesis is proposed:

\[ H1. \] The use of participation during strategic change will be positively related to organizational learning.

**Social accounts and organizational learning**

Social accounting is defined as the process used for explaining the reasons for a decision to those affected by the decision (Cobb and Wooten, 1998). Social accounting is a purposeful activity performed by change agents in order to achieve employee acceptance of a decision or commitment to the decision, sometimes with negative consequences for those affected. The process of social accounting can however, also be dictated by behavioural norms embedded in the organizational culture regardless of its influences on employee attitudes towards the decision. The use of social accounting is widely advocated in the normative literature on implementation of strategic change because of its alleged positive influence on the likelihood of implementation success (Kotter, 1996). In the more descriptive literature on organizational change, it has also been identified as a vehicle used for creating readiness for change defined as “the cognitive precursor to the behaviours of either resistance to, or support for, a change effort” (Armenakis et al., 1993, pp. 681-82). Social accounting has also been found to influence organizational members' perceptions of fairness of procedures used during divestiture (Gopinath and Becker, 2000) and layoffs (Brockner et al., 1994).

To see more clearly how social accounting affects the rate of learning it is useful to think of organizations being in an initial state more characterized by intellectual inertia than as systems continuously seeking new insights and truths about relevant knowledge domains. Rather than being concerned with the validity and
instrumentality of the prevailing set of beliefs and routines organizations seem to cling to them and there is a strong tendency to discount or ignore belief inconsistent information or to interpret it so it becomes consistent with pre-existing beliefs and patterns of action. This behavioural-cognitive inertia can be functional for organizations as well as individuals in organizations. Organizations are much more efficient at performing tasks they know well than new tasks as shown by the well-known learning curve studies (Yelle, 1979) and also by Chandler’s (1962) findings that organizations experience a significant drop in productivity in periods immediately after change in structure. Indicative of the same phenomenon are the difficulties experienced by Ford’s transition from the Model T to the Model A which required shutting down the manufacturing facility (Abernathy and Wayne, 1974). In the words of March (1991):

The returns to exploitation are ordinarily more certain, closer in time, and closer in space than are the returns to exploration.

Also, organizations are wise to question both new insights and routines based on such insights as the conditions for developing valid knowledge in organizational settings are frequently poor as shown by March et al. (1991) and Feldman (1986). For individuals, belief perseverance economizes on limited cognitive capacities that have many alternative areas of application because activation and use of pre-existing beliefs and behavioural scripts is much less capacity demanding than cognitive change. Both organizational theorists and cognitive psychologists have identified a number of reasons why organizations and individuals in organizations rely on taken for granted beliefs and action repertoires in performing tasks. Organizations, as social systems are characterized by a set of social representations, i.e. a set of socially validated and shared beliefs about issues seen as important for the functioning of the organization (Moskovici, 1963). Social representations of this sort are also social in their origin because they are created by discourse among organizational members. The fact that organizational beliefs are shared, and based on the interpretation of shared experiences creates additional barriers to learning because groups, the whole organization and in some cases external stakeholders must change their beliefs before learning can occur.

One important consequence of these obstacles is that organizations have to be infused with additional energy in order to overcome the learning barriers. The need for creating some level of readiness for change by energizing organizational members has long been acknowledged in the literature on systems change. In his well-known model of change, Lewin (1948) argued that a phase called unfreezing must precede cognitive or behavioural change. The key challenge in the unfreezing stage is to make individuals and groups question existing patterns of action and the assumptions on which organizational routines are built. More directly related to the present work, Hedberg (1981) identified an organization’s capacity to unlearn as an important prerequisite for subsequent learning. By providing social accounts for a proposed change or a decision, change agents purposefully intend to trigger an unfreezing process by which current results, practices, priorities, structures, or beliefs, are challenged. At the individual level social accounting is likely to produce increased information seeking and information processing as the individual is trying to make sense of the message content and explore which consequences the decision or proposed
change has for him/herself. The increased information processing instigated by reception of the social account leads to belief change or addition of new beliefs to the individual’s stock of work relevant beliefs.

In addition to message recipient learning, social accounting is likely to generate feedback processes conducive to change agent learning. Organizational members are not passive recipients of social accounts regarding important aspects of their work situation. They are likely to react to the message by voicing dissidence, enthusiasm, by foot dragging or even sabotage of the proposed change. Reactions to the message are highly dependent on how personal consequences of the proposed change are perceived. Perception of negative outcomes is likely to be followed by negative reactions and perceptions of positive consequences are most likely leading to acceptance of or commitment to the change. As individuals are likely to be affected differently by the change, change agents are confronted with a portfolio of reactions varying from highly negative to highly positive. Negative reactions, in particular when they originate in powerful individuals or groups represent problems to be solved by the change agent. Thus, reactions are likely to be followed by a problem solving process by which the change agent tries to diagnose the origins and severity of the reactions and a way to overcome lack of change commitment.

Individuals do not however, process information unaffected by their social environments. Social accounting is likely to trigger a set of interpersonal learning behaviours within and across affected work groups (Edmondson, 1999). Individuals’ interpretation of a message is followed by a discourse among organizational members in which individual interpretations are presented, challenged and changed. Sometimes this process follows a dialectical sequence with propositions of theses and antitheses leading to socially validated syntheses. Such processes lead to the social construction of a reality concerning consequences of the change, legitimacy of the change itself and to what extent the proposed change is a good solution to the problems identified in the preceding diagnose phase. The proposed learning mechanisms are shown in Figure 2.

The model leads to the following hypothesis:

\[ H2. \] The use of social accounting during strategic change is positively related to organizational learning.

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**Figure 2.**
Proposed mechanisms relating social accounting to organizational learning

<table>
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<th>Change agent</th>
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<td>Problem solving and learning triggered by social account recipients’ reactions to message</td>
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<th>Group level learning behavior</th>
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<td>Discussions</td>
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<td>Construction of socially validated interpretations</td>
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<th>Individual level</th>
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<tr>
<td>Interpretation</td>
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<td>Cognitive change</td>
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Social accounts
Message framing

In rare situations, change and the events triggering perceived needs for strategic change impose themselves upon the organization as unambiguous opportunities or threats. More often, however, consequences of change instigators are opaque, complex and multiple, and thus, must be actively interpreted and constructed by the organization. Under such circumstances, change agents have leeway to present events as promising opportunities for expansion of the organizational domain, improved financial performance or higher levels of customer satisfaction – or the opposite. Possible differential effects of framing the message as opportunities or threat have received little attention in the literature on change management. As argued by Staw et al. (1981) the framing of the content of social accounts given may have profound impacts on the learning that takes place during implementation of strategic change. Citing a wide array of literatures, Staw et al. (1981) identified threat induced processes at individual, group and organizational levels that leads to ignoring new, belief-discrepant information, a reluctance to consider new alternatives. When subjected to a threat to system survival, especially when there is little time to react (Hermann, 1963) organizations exhibit a tendency towards premature closure of problem identification and problem solving processes. According to Smart and Vertinsky (1977) fewer sources of information are consulted during a perceived crisis and Paige (1972) found that decision makers rely heavily on past experience or prior knowledge. In sum, when confronted with threatening situations or messages all three types of social entities react in a manner that seems inconsistent with the open, explorative state of mind associated with learning. Thus, we believe that:

H3. When social accounts are framed as threats to individuals, groups or the organization, there will be no positive impact on learning.

Interactions

In the preceding sections it has been argued for direct positive relationships between organizational learning and the use of social accounting and participation as procedures for implementing strategic change. The effect of social accounting is, however, likely to depend on the amount of participation used during change. It is posited that the use of social accounting can be seen as a substitute for participation in much the same way as leaders can choose among several influence tactics in order to achieve cognitive, affective, or behavioural, changes of their followers (Hinkins and Schriesheim, 1990). In some situations, change agents may choose not to involve employees in change because it is inconsistent with organizational culture, skill levels of employees (Locke and Schweiger, 1979) or because employees are not willing to participate (Neumann, 1989). In such situations, social accounting might emerge as an attractive alternative to participation.

Participation allows for direct contact between change agents and those whose work conditions are affected by the change. As argued above, when participative processes are used, change agents and other participants collaborate in order to assess the need for change, the content of change and the procedures by which changes are to be installed in the organization. Such processes eliminate much of the need for social accounting i.e. explanation of the reasons why a change is seen as necessary for
sustaining or improving organizational goal achievement (Cobb and Wooten, 1998). Stated differently, social accounting performed by change agents is likely to form a part of but not encompass all learning related activities performed in participative processes. Based on this it seems likely that the effect of social accounting on organizational learning diminishes as the level of participation increases, so:

\[ H4. \] Participation negatively moderates the relationship between social accounting and organizational learning.

**Methodology**

*Respondents and procedure*

The respondents for this study included managers drawn from a population of participants in a management program for strategy development. The program is administered by a management development consortium owned jointly by 52 mid-sized Norwegian firms. Participating firms operate in a number of industries, including banking, shipbuilding, insurance and furniture manufacturing. The structure and functioning of this program has previously been described in Hanssen-Bauer and Snow (1996). Participants are middle managers from different functional areas such as finance, marketing, HRM, production and purchasing. From their positions as middle managers, the respondents are particularly well situated to observe and report on the phenomena under investigation in this study. Middle managers interact with and receive information from both operating and top levels of the organizational hierarchy. Also, due to the size of their firms (typically mid-sized organizations), these middle managers are members of their organizations’ top management teams. Finally, middle managers play key roles in the implementation of strategic change by linking visions to concrete changes within their functional areas. On an average, the organizations in the final sample had 310.1 employees. The average tenure of the respondents with their present employer was 11.1 years. Average tenure in their respective industries was 13.9 years.

A total of 200 prospective respondents were contacted by telephone, and their agreement to participate was solicited. One hundred and eighty nine (95 per cent) of the subjects contacted agreed to take part in the study. The respondents were asked to base their answers on experiences from one particular change process in which they had taken part. The only screening criterion used was that the change was perceived as an integral part of the implementation of their organization’s strategy. This was done in order to avoid surveying change processes that – although they might be of significance – cannot be seen as an attempt to implement strategy according to the definition of strategic organizational change provided above.

Questionnaires were administered via mail. After one reminder by telephone, 88 questionnaires were received, a response rate of 48 per cent. Tests for non-response bias did not indicate any differences between respondents and non-respondents in terms of company size, industry, or managerial position. The means of the respondents who received the reminder to those who did not receive a reminder on all the variables measured in the survey were also compared. These tests did not indicate differences between the groups in terms of change content, change process, or change outcome. This procedure, as expected, yielded information from a quite heterogeneous set of strategic change projects.
A large portion of the change projects (39.4 per cent) was efforts to implement strategy through changes in the internal structure of the organization. The relationship between formal organizational structure and strategy is widely recognized (Chandler, 1962). Although different views concerning which of the two precedes the other have been held (Hall and Sais, 1980; Hoskinsson, 1987), recent empirical research has shown that strategy’s impact on structure tends to be stronger than structure’s impact on strategy (Amburgey and Dacin, 1994). Also, Skivington and Daft (1991) identified structure as one important vehicle for implementing strategy. A second major class of projects was initiatives to change formal systems of the organization (24.3 per cent of all changes). Changes in organizational systems such as performance measurement systems and reward systems are frequently seen as important parts of integrated programs for implementing strategy in the normative literature (Kilmann, 1989). The remaining change projects were attempts to introduce new technology (15.2 per cent) and to change the organizations’ domain (19.1 per cent).

Measures
All variables were measured using multi-item Likert type scales. Scale items are reported in the Appendix. Based on a thorough literature search, it was concluded that no published, validated measurement instruments were available for the variables of interest in this study. Thus, new scales were developed based on the theoretical definitions of these variables. Simultaneous Principal Components Analyses of the learning, participation and social accounts scales yielded four components with eigenvalues > 1 (no cross loadings), a result that provides support for the discriminant validity of the scales. Organizational learning was measured by four items mapping perceived levels of learning related to:

1. management of change processes;
2. learning from the domain of the change itself (e.g. acquisition of a new company, restructuring of internal organization); and
3. learning without specifying the learning domain.

The scale was subjected to principal component analysis and proved to be unidimensional (α = 0.91). Participation was measured by following the advice of Pasmore and Fagans (1992) who argue that the validity of participation measures is dependent on the level of specificity asked for in a set of items. In order to maximize the level of specificity, we asked for participation in distinct activities commonly believed to be part of a change process such as initial situation assessment, development of solution/change content and development of framework for implementation of change (Wooldridge and Floyd, 1990). The scale consisted of four items. Principal components analysis yielded one factor with eigenvalue > 1 (α = 0.83). The use of social accounting framed as opportunities was measured using three items (α = 0.78). Social accounts framed as threats was measured by two items (α = 0.73).

Control variables
In order to improve the statistical conclusion validity of the study change novelty and change efficiency focus were included as control variables. Change novelty was included because prior research has suggested that organizational learning depends on how far a change is located from the organization’s current knowledge base.
Validation of measures

Socially desirable responding is a threat to construct validity to the extent that respondents’ responses are influenced by their perceptions of social norms. Socially desirable responding is introducing measurement error because measures are affected by factors outside their relevant conceptual domain. Organizational phenomena, such as participation, are susceptible to this form of socially desirable responding to the degree that relevant social norms exist. In this study, participation was judged to be the variable most susceptible to socially desirable responding. In western societies a high level of participation is desired for at least three reasons. First, participation is associated with humanistic values, because it is reflective of a respect for the individual and individual needs. By allowing individuals an influence on consequential decisions, it is believed that their personal needs are catered for. Second, participation can be seen as a way to respect democratic values – that is – the right to have a voice in decisions. Finally, participation is argued to be instrumental in achieving organizational goals due to its alleged positive influence on emotions, attitudes and behaviours. In order to assess the possibility of socially desirable responding, the population of respondents was divided into two groups namely group of change agents and group of change recipients. Socially desirable responding would be present if the change agent group reported higher levels of participation than the change recipient group. A t-test showed no significant difference in mean participation between the two groups ($F = 1.5, p > 0.1$).

Common method variance can be a threat to internal validity in survey research when all dependent and independent variables are assessed with similar measurement instruments. Typically, when common method variance is present, correlations among variables are inflated due to a method factor. Serious inflation due to common method variance would lead to consistently high intercorrelations among all measured variables, regardless of their substantial meaning. An inspection of the correlation matrix in Table I indicates that this is not the case in this study. The highest absolute value correlation is between participation and organizational learning ($r = 0.51$). Very low correlations are found between change novelty and participation, SAOpportunity and SAThreat ($r’s = -0.01, -0.01$ and $0.01$, respectively), as are

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<th>Means</th>
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<tr>
<td>Organizational learning</td>
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<td>1.04</td>
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<td>Participation</td>
<td>12.62</td>
<td>3.03</td>
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<td>SAOpportunity</td>
<td>4.54</td>
<td>1.22</td>
<td>0.46**</td>
<td>0.45**</td>
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<td>SAThreat</td>
<td>4.52</td>
<td>1.56</td>
<td>0.30**</td>
<td>0.28**</td>
<td>0.39**</td>
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<td>Novelty</td>
<td>0.49</td>
<td>1.67</td>
<td>0.22*</td>
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<tr>
<td>Efficiency</td>
<td>4.57</td>
<td>1.38</td>
<td>0.25*</td>
<td>0.06</td>
<td>0.03</td>
<td>0.30**</td>
<td>0.09</td>
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<tr>
<td>Participation × SAOpportunity</td>
<td>58.66</td>
<td>22.40</td>
<td>0.54**</td>
<td>0.78**</td>
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Table I.
Means, standard deviations and correlations of study variables

Note: *p < 0.05 and **p < 0.01
between efficiency and participation and SAOpportunity ($r's = 0.06$ and $0.03$, respectively). This pattern of correlations is inconsistent with a process by which most covariation is due to the use of a common methodology.

**Results**

In addition to providing basic descriptive information about the analysis sample, Table II presents zero-order correlations among the analysis variables. High and positively significant correlations between participation and learning as between SAOpportunity provides some preliminary support for $H1$ and $H2$.

A high intercorrelation between SAOpportunity and SAThreat observed ($r = 0.39$), is a result that was not expected from the review of the previously cited literature on message framing. From this literature it was expected that messages usually are framed either as opportunities or as threats to the organization. The intecorrelation between the two construct indicates that change agents use more diverse arguments in their social accounts during change.

A more formal test of the hypotheses was made by using hierarchical regression involving three models (Model 1-3). The first of these models regressed independent variables hypothesized to have a main effect on organizational learning. In the second model, the block of control variables were entered. In the third model, independent, control and interaction variables were all entered.

According to $H1$, participation was expected to have a positive influence on organizational learning during strategic change. Findings are consistent with this hypothesis as the participation variable is positively and significantly related to the organizational learning variable. The results also exhibit stability across

<table>
<thead>
<tr>
<th>Variable</th>
<th>1</th>
<th>Model 2</th>
<th>3</th>
<th>Hypothesis</th>
</tr>
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<tr>
<td>Intercept</td>
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<td>2.63**</td>
<td>0.44</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(6.88)</td>
<td>(4.88)</td>
<td>(0.44)</td>
<td></td>
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<tr>
<td>Participation</td>
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<td>0.37**</td>
<td>0.85**</td>
<td>$H1$</td>
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<td></td>
<td>(3.62)</td>
<td>(3.77)</td>
<td>(3.49)</td>
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<tr>
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<td>0.30**</td>
<td>0.95**</td>
<td>$H2$</td>
</tr>
<tr>
<td></td>
<td>(2.4)</td>
<td>(2.96)</td>
<td>(2.99)</td>
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</tr>
<tr>
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<td>-0.007</td>
<td>0.01</td>
<td>$H3$</td>
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<tr>
<td></td>
<td>(0.85)</td>
<td>(-0.08)</td>
<td>(.08)</td>
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<td>Novelty</td>
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<td>21*</td>
<td>0.23</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(2.47)</td>
<td>(2.82)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Efficiency focus</td>
<td>–</td>
<td>0.23**</td>
<td>0.23*</td>
<td></td>
</tr>
<tr>
<td></td>
<td>(2.63)</td>
<td>(2.67)</td>
<td></td>
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<tr>
<td>Participation × SAOpportunity</td>
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<td>–</td>
<td>-1.01*</td>
<td>$H4$</td>
</tr>
<tr>
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<tr>
<td>$F(\Delta R^2)$</td>
<td>14.60**</td>
<td>7.10**</td>
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<td>d.f.</td>
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<td>7.78</td>
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</table>

**Table II.** Hierarchical regression analysis of relationships between independent, control and interaction variables on organizational learning ($t$-values in parantheses)

Note: *$p < 0.05$ and **$p < 0.01$
the three models. $H2$ stated that the use of social accounting would have a positive impact on learning. Also this hypothesis was supported by the data. In $H3$, we argued that framing the social account as a threat to individuals, groups, or the organization, would eliminate the relationship between social accounting and learning. The zero beta-coefficient found between SAThreat and learning is consistent with this theorizing. Finally, we proposed that when participation is used for implementing change, the effect of social accounting on learning would disappear. The negative beta for the interaction term found in Model 3 is also consistent with this hypothesis.

**Discussion**

In general, the theoretical framework we proposed for studying the interrelationships between social accounting, participation and organizational learning has received considerable support.

A strong relationship between participation and organizational learning was found. This finding stands in some contrast to previous research on the putative effects of participative practices in organizations. As shown in several reviews and meta-analyses, researchers have had a difficult time substantiating the theoretical claims concerning benefits of participation with unequivocal empirical results. The finding that participation has a positive impact on learning, here defined as the development and dissemination of work-based knowledge that is perceived as useful for solving organizational problems, might provide a bridge between participation and performance. Learning thus defined concerns knowledge that is developed and distributed during the execution of organizational work processes. However, there is no necessity that the ensuing knowledge has led to manifest changes in behaviour at the time of measurement. As several authors have stated, there might be considerable time lags between the development and use of organizational knowledge. Knowledge can remain latent and not used for several years until a problem occurs that calls for application of knowledge from a particular domain. In our case it is likely that learning about how to manage complex change processes better will not have an impact on organizational performance until a new situation calling for strategic reorientation occurs. Cohen et al. (1973) in their garbage can model of organizational decision making illustrate this point by portraying decision making as a process by which solutions seek problems, and solutions are only applied when a problem occurs that matches the pre-existing solution (knowledge). In many studies, organizational performance has been tapped shortly after the completion of a participative process. If the participation-performance link is mediated by organizational learning in the way we propose, the effects on performance might manifest at a later point in time.

Notable is also the differential effects of social accounts framed as threats and otherwise. The finding is consistent with theorizing about threat-rigidity effects in organizations (Staw et al., 1981; Dutton, 1993), but to a much lesser degree with work that assumes that perceptions of crises are useful for changing organizations. In fact, these findings seem to contradict theoretical points of view expressed in the literature that failure produces more search for new solutions than success (Cyert and March, 1963; Levinthal and March, 1993) and that organizations should explicitly design processes producing failure in order to increase the rate of learning (Sitkin, 1996).

However, it is still possible that framing accounts as threat can have a positive impact on other change-relevant outcomes such as lowering resistance to change,
shortening the time needed for completing the change process, and achievement of short- to medium-term change goal achievement.

In sum, the results are reassuring for those who believe strongly in the positive effects of social accounting and participation for instrumental or ideological reasons. An important implication of our findings is that these widely advocated approaches to change have a positive, rather than negative influence on organizational learning. This is of significance as organizations become more and more concerned with how to develop processes and structures that facilitate learning.

Limitations and directions for further research
The theoretical mechanisms mediating the process-learning links examined in this research are still not well understood. Our theorizing about the mechanisms is construed using previous research from other areas and logic. Although results consistent with this theorizing were found, a number of competing mechanisms cannot be ruled out. Thus, it is believed that there is great need for validation of the propositions. In particular, we believe that more clinical studies of learning could shed more light on the micromechanisms relating process to learning.

Using strategic change as a setting for studying the relationships between participation, social accounting and organizational learning seemed warranted as strategic change represents an episode in organizational life particularly appropriate for questioning and changing previously held frames, assumptions and routines. Also, the close links between strategic change and learning pointed out by authors such as DeGeus (1988) and Hendry (1996) indicates that strategic change is a setting that would be fruitful for studying relationships between organizational processes and learning. However, the choice of setting also limits the generalizability of the results. Periods of strategic change are atypical events in organizational life cycles because they allow for open dialog between members, horizontally as well as vertically, and the questioning of assumptions and routines otherwise taken for granted in the organization. In periods between strategic changes organizations may well favour silence and stability (Morrison and Milliken, 2000) because continuous exploration is perceived to negatively affect exploitation (March, 1991), i.e. efficient operation under a given strategy. It is possible that the relationships between participation, social accounting and organizational learning are stronger during strategic change and for work tasks related to strategic change than for work performed as day to day operation of the organization during periods of strategic stability. Thus, future research should explore whether high involvement work environments and organizations preferring high levels of social accounting over mere edict (Bourgeois and Brodwin, 1984) are more conducive to learning in periods without strategic change.

Although some authors see participation as a humanistic and democratic employee right that should be respected whatever consequences for the organization, others have pointed out that for participation to have a positive impact on employee well-being and organizational performance alike, a set of participation skills has to be in place (Locke and Schweiger, 1979). Because of this it is not likely that introducing participatory structures and processes in organizations with a long history of autocratic, top down approach to planning, change or problem solving will have immediate effects on valued outcomes such as learning. Future research should study the possible
moderating role of past practice developing into a participative climate (Lawler, 1986; Tesluk et al., 1999) on the participation-organizational learning link.

In this research, no distinction was made between different forms of neither participation nor social accounting. More fine grained conceptualizations of the two constructs could lead to better insights into their impacts on organizational learning as well as the mechanisms by which they affect learning. For example, Cobb and Wooten (1998) discuss four forms of social accounting and Cotton et al. (1988) argue that degree of formalization, directness and breadth of involvement should be included in research on participation.

The empirical study of organizational learning is still in its infancy. This research takes some initial steps toward explaining the relationship between organizational processes and learning. Clarifying these relationships hopefully will encourage more organizational scholars to embark on substantive research addressing the dynamics of learning in the workplace, and how organizational structures and processes enhance or limit the rate and content of organizational learning. These research findings will provide guidance to practitioners as they endeavour to create learning organizations.

References
Argote, L. (1999), Organizational Learning: Creating, Retaining and Transferring Knowledge, Kluwer, Boston, MA.


Further reading


Hobday, M. (1990), Telecommunication in Developing Countries: The Challenge from Brazil, Routledge, London.


Appendix
The items for the scales used in the study are given below.

Organizational learning
This change has generated valuable new insights.
This change has generated new insights that are important for how we perform our functions.
This change has generated new knowledge of how to manage change.
This change has increased our level of knowledge about change processes.

Participation
Steps were taken to involve affected persons at an early stage of the change process.
Affected persons became actively involved in the development of the change content.
Affected persons were actively involved in the development of solutions to identified problems.
Suggestions from affected persons were considered seriously.

Social accounts – opportunities
Prior to implementation how the change would contribute to organizational goal achievement was communicated.
Prior to implementation, communication focused on benefits of the change.
Change management communicated how the change would make us more similar to well-known successful organizations.

Social accounts – threats
Change management motivated the change by referring to negative development in key performance areas (e.g. market share, cost, customer satisfaction).
Change management communicated images of what the company situation would become if the change were not implemented.

**Efficiency**
It was obvious that this change would imply an increased focus on cost.
It was obvious that this change would imply a closer monitoring of costs.

**Change novelty**
The change can be characterized as a natural extension of the way we previously have worked in order to achieve our objectives (r).
The change represents a radical departure from previous organizing or performance of work.