"QUALITY OF MANAGEMENT: THE INVISIBLE ENGINE OF CORPORATE PERFORMANCE"

by

Sumantra GHOSHAL*
and
Christopher A. BARTLETT**

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* Professor of Business Policy at INSEAD, Boulevard de Constance, Fontainebleau 77305 Cedex, France.

** Professor at Harvard Business School, Soldiers' Field, Boston, MA 02163, U.S.A.

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The Invisible Engine of Corporate Performance

Sumantra Ghoshal
INSEAD
Boulevard de Constance
77305, Fontainebleau, France

Tel: 33-1-60.72.40.00

Christopher A. Bartlett
Harvard Business School
Soldiers' Field, Boston
MA02163, U.S.A

Tel: 617-495-6308

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QUALITY OF MANAGEMENT

The Invisible Engine of Corporate Performance

The performance of a firm is influenced by its relative position in the industry and by its stock of relevant, valuable and unique resources. The firm's ability to develop and deploy such resources and to build attractive market positions in its businesses is, in turn, influenced by its organizational capabilities (Rumelt, Schendel and Teece, 1991). Underlying both the strategic positions and the organizational capabilities are what Porter (1991) describes as "managerial choices", i.e., the decisions and actions that actors within the firm have taken over time. While neither comprehensive nor nuanced, this crude recapitulation of the last two decades of work in the strategy field points to the next question in the chain of causation: what factors influence these choices and actions of individuals within the firm?

An initial answer to this question that Burgelman (1983) described as "the heroic view of top management" and Mintzberg (1990) caricatured as "the design school" is fast losing its only remaining claim to usefulness. It is no longer a good punching bag. While it is not clear as to who last asserted this view that "allocates all major decisions to top management, which imposes them on the organization and monitors them though elaborate planning, budgeting and control systems", it is clear that this assumption is patently inapplicable at least in the context of large, complex organizations (Hayes, 1985 : 117). As observed by Eisenhardt and Zbaracki (1992), this extreme version of the rational model in strategy research is no longer interesting even as the "straw man".

Yet, as acknowledged by Mintzberg himself, the other extreme of the "grass roots model" (proposed by Mintzberg and McHugh, 1985) "makes no more sense, since it overstates equally" (1990 : 190). The reaction to the heroic view of management has been an equally

heroic celebration of the lack of management in which observations of a few cases of poorly managed organizations have been enshrined as general theories of organizational behavior. In these theories, choices and action in organizations are severely constrained by ambiguity and uncertainty, on the one hand, and by the opportunism, cognitive limits and political agenda of their members, on the other hand. Given these constraints, decisions emerge either from a process of complex internal bargaining and coalition building (Pettigrew, 1973; Pfeffer, 1992) or pure chance (Cohen, March and Olsen, 1972) and purposive managerial action, if any, must be hidden behind incremental maneuvering along corridors of indifference in organizational politics (Quinn, 1980).

This too is a non-answer, at least in the specific context of business firms operating in competitive markets - the key domain of interest for the field of strategic management. Most observers of such firms will readily acknowledge the influence of politics and of chance in such organizations but will also recognize at least the partial truth in Andrew's rebuttal: "those who believe that life is too uncertain to permit planning and that purpose must remain mostly intuitive, are a kind of Greek chorus keeping the rest of us honest while they hymn their classic cop-out" (1983 : 3). Recent empirical studies (see for example, Sharfman and Dean, 1992) have also tended to question the assumption of pervasive constraints to purposive action that has dominated organizational literature in the 1980's. As described by Eisenhardt and Zbaracki, "the empirical support underlying organized anarchies and the garbage can model, which is often single case studies in book chapters, has modest methodological validity and is surprisingly soft" (1992 : 31). Similarly, it appears that the pervasiveness of politics has been exaggerated. "Traditional theorists have underestimated the degree to which executives will put aside parochial interests for the good of the firm (Eisenhardt and Zbaracki, 1992 : 27). Finally, perhaps the strongest evidence of this exaggeration lies in the lay observation that our daily lives would have become impossible if most organizations behaved like the academic departments in the university of Illinois described by Pfeffer and Salancik (1974) or the major American public university studied by Olsen (1976).

A third answer, one that we will build on in this article, originated from the work of Bower (1970) who highlighted the role of "context" as the mediator between corporate purpose and distributed action in companies. Bower distinguished between the "structural context", produced by the formal organization structure and its systems of measurement, reward and control, and the "situational context" influenced by ideosyncratic personal and historical factors relevant to a particular decision or action. Being unique to the situation, the situational context - while critical to the solution of a particular problem - was not amenable to theorizing. The structural context, on the other hand, represented the key levers available to management for influencing the behaviors and actions of individuals at lower levels of the organization. Structural context, therefore, was Bower's answer to the question that was posed in the introductory paragraph.

Subsequently Burgelman (1983) further elaborated the notion of context by differentiating between the structural context described by Bower, which influenced what Burgelman described as induced strategic behavior, and the strategic context that was shaped by autonomous strategic action of entrepreneurial individuals at operational levels of the company. Burgelman's departure from Bower was primarily on the grounds that, ultimately, Bower's answer was still a reflection of the heroic view of management in which top management influenced the choices and actions of others, if not by deciding on strategy and enforcing compliance, then by playing on the levers of structure and systems. Resonating with a question posed by Bower himself- "if structure is to shape strategy, what vision shapes structure and how is that vision to be developed?" (Bower and Doz, 1979 : 159) - Burgelman asserted the ultimate primacy of entrepreneurial grass-root initiative by proposing a model of the strategic process that begins with autonomous strategic behavior shaping the strategic context which, over time, determines the company's concept of corporate strategy. This concept, in turn, shapes the structural context that influences induced strategic behavior. Action, therefore, is both induced and autonomous; both the producer and the product of context.

This article presents a conceptualization of organizational context that builds on the research of Bower and Burgelman. Yet, perhaps because we stand on their shoulders, and also because of the nature of our data, the view presented here differs a little from theirs.

Between 1990 and 1993, one of us has been relatively closely involved in the daily activities of a company that we will refer to as Semco. Over these three years, the company - a $1.7 billion global business that is part of a larger holding group - has dramatically improved its performance from a loss of $300 million in 1989 to a profit of $200 million in 1992. Our (even though only one of us has been involved with Semco, the effort was part of a broader joint research project, and we will use the plural pronoun throughout the paper) involvement in the affairs of the company has combined three roles: that of a teacher, designing and delivering educational programs, a consultant facilitating key meetings, and a researcher, conducting formal interviews with employees in a variety of different levels and functions of the company and writing a detailed case study based on such interviews and other documents. Over these three years, not only has the financial performance of the company changed significantly, its organizational context too has evolved considerably. The framework presented here is a product of our attempts to theorize about context based on our interpretation of why and how it changed at Semco.

In the next section, we will describe the nature and sources of our data more fully and explain the analysis and hypotheses generation process we followed. But some limitations of the study are manifest. First, given the research context, our views suffer perhaps from a bias opposite to that of most contemporary organizational theorists: we are influenced by a case of context building in a situation of remarkable improvement in performance. Therefore, we may be describing what it can be rather than what it is, in general. Second, despite excellent precedence (none more compelling than Barnard, 1938) and well-argued justification (for example from Mintzberg, 1979), theorizing from a single and, by definition, unique case is inevitably suspect. But, while acknowledging these limitations on the generality of the framework, we suggest that organizational context can be both more purposeful and more multifaceted than is apparent in the models of Bower and Burgelman.

For Burgelman, context - and, by implication, the role of top management - is essentially a selection device. Context is passive and restraining, representing the perspectives of top managers with an ossified frame of reference locked in the past. Perhaps this was so in the particular firm whose new venture division Burgelman studied. Perhaps, as Burgelman himself suggests, firms with such a context are more likely to create structurally distinct new venture divisions to reduce the variability within their organizational mainstream. But this need not be so. As observed by Haspeslagh (1986) in an important but unpublished article, while organizational context is a selection mechanism, it can also be a key source for creating variation - for promoting entrepreneurship rather than restraining it. Indeed, such a stimulus for decentralized initiative was a key element in the context that evolved in Semco. Our conceptualization of organizational context, therefore, incorporates dimensions that facilitate not only selection and retention, but also variation as a key driver of renewal.

Second, for both Bower and Burgelman, the focal emphasis was on the formal structure and systems which they viewed as the key shapers of context. Indeed, this view is most pronouced in Bower who looked to the explicit definition of managers' formal responsibilities and to the systems of capital budgeting, financial control and performance evaluation as the main levers available to the management for influencing the behaviors and actions of others. In contrast, the top management of Semco used a far broader set of tools, from a formal mission statement to a focused benchmarking exercise, from a new format of management meetings to a new process for selecting computer aided design tools - in conjunction with structure and formal control systems - to create a much more multifaceted context than was perhaps the case in the company Bower studied. Here again, our observations resonate with the findings of Haspeslagh (1986) who relabelled structural context as administrative context and added culture as a third dimension of context, separate from the strategic and administrative dimensions, to incorporate precisely some of these mechanisms for the exercise of management influence. Accordingly, the framework presented here is also multidimensional and it incorporates this broader set of management levers that managers of Semco used.

Finally, Burgelman's distinction between strategic and structural contexts, and Haspeslagh's even more fine-grained separation among strategic, administrative and cultural contexts, while useful for analytical purposes, may also be misleading. Each actor within the organization experiences the context much the same way as we experience the air around us. On a sunny spring day, strolling in the forest of Fontainebleau, the air is fresh and stimulating; in downtown Calcutta in the summer, it is stale and oppressive. The precise chemical composition of the air may be of interest for certain scientific purposes, but it is its overall quality that affects our behaviors and actions. From the perspective of actors within the organization, the same is true of context. Our conceptualization, while highlighting the different dimensions that constitute the gestalt of context, aims to capture this overall influence it has on the behaviors and actions of individuals within the company.

In this regard, our views have much in common with the large body of literature on organizational climate that has recently been pronounced as having "died from acceptance" (Schneider, 1985 : 595). This speculation of death, we believe, is premature. At least, in the field of strategic management, a resurgence of interest on context (or climate) can be anticipated for two reasons. First, cumulative research has increasingly directed the explanation for sustained performance differences among firms to lower and lower levels of analysis, from industry, to strategic groups within industry, to organizational capabilities of individual firms (Cool and Schendel, 1988; Rumelt, 1991). Second, there is a growing recognition of the importance of what has been variously described as context, climate and culture, beyond those of formal structure and systems, as a key element of organizational capability (see review in Barney, 1986). At the same time, the attention of strategy scholars is also likely to enrich the literature on climate by accomplishing precisely what Schneider recommended, that is, focusing on the implications of climate on organizational productivity and performance and not just on its impact on internal social practices. Such a perspective - like ours in this article - is likely to highlight attributes of climate that have been relatively underemphasized by organization behavior scholars and, thereby, to open up new avenues for productive research at the interface of these two converging fields.

Borrowing from Doz and Prahalad (1989), we will refer to context (or climate) as the "quality of management" (see figure 1) which we will define as the relatively enduring quality of an organization's internal environment that influences the behaviors and actions of its members (see Field and Abelson, 1982 and Abbey and Dickson, 1983). Following the causal chain that was sketched in the introductory paragraph, context is "the origin of origins" (Porter, 1991) - the ultimate and invisible cause of business performance. For large and worldwide companies, both strategy and structure may be highly diffused, varying by products and markets, and they may be shaped in an interactive way from the actions and learning of actors in the operating levels of the firm (Ghoshal and Bartlett, 1991). In this less heroic view, top management may shape neither strategy nor structure, except perhaps in a symbolic way. However, as argued by Doz and Prahalad (1989), what it does shape is the context - "the smell of the place" as described by a Semco manager. Therefore, if there is any indicator of the quality of management in an organization, it must lie in this ultimate cause of performance. If the term "quality of management" has a normative flavor, it is entirely intended and follows the advice of Eisenhardt and Zbaracki who recommended a stronger normative orientation in strategy research since "normative implications are at the heart of strategic management" (1992 : 33).

- Figure 1 about here -

TALE OF A TURNAROUND:
and of a messy research process

In 1989, Semco registered operating losses of $300 million on sales of $1.8 billion. A manufacturer of electronics-based industrial products, the company had been losing money and market share over the preceeding three years. Yet, the size of the loss in 1989 was unexpected and would have put the company close to bankruptcy but for the financial support of the $30 billion diversified group of which it was a part.

A detailed investigation by the top management of the group revealed the situation to be "hopeless". In a scale-intensive global industry, Semco was ranked 10th in size and its

products were positioned in low growth and highly cost competitive segments of the market. Because of high level of technological changes in both products and processes, the business was extremely investment intensive with average industry R&D spending of 15% of sales and capital investment of 130% of depreciation. All evidence suggested that to stay in the business, given the high investment needs, a company needed at least 6% global market share while Semco's share was less than 1%.

Internally, within Semco, the environment was "catastrophic", as described by the group-level manager then responsible for overseeing Semco's operations. Conflict within the top management team had reached extreme limits: the powerful head of Semco's only profitable business unit openly disagreed with the chief executive on the latter's strategy of investing heavily in a new technology; two of the four business unit managers did not even speak to each other; and the relations between the line management and the relatively autonomous R&D group was extremely strained. The consequences, at the operating level, were described by a manager as follows:

> There was complete paralysis. We did what we were told by our bosses, but things would change all the time. There was no faith in anyone and things were very political. You had to always watch out or your head would get shot.

In March 1989, in an effort to correct the situation, management of the holding group replaced the chief executive of Semco and the head of one of the company's four business units was appointed to this position. Unlike his predecessor who, having joined Semco from another company within the group, had limited background in Semco's industry, the new chief executive was an industry veteran having risen through the technical and marketing ranks of Semco in his three-decade long career with the company. From March, 1989 to May, 1990 - when Semco's 1989 losses were formally announced - the new chief executive worked on some modest cut-backs to reduce Semco's research and operating expenses. His agreement with the top management of the group envisaged a gradual nursing back of the business to the break-even point by 1992 without any drastic changes in the company's overall direction.

The size of Semco's 1989 losses, together with similarly large losses in some other companies within the group, changed the situation completely in May, 1990. Stung by adverse reactions from the financial market, the newly appointed chief executive of the group demanded more immediate and severe actions to stem the losses at Semco. Over the next three months, Semco managers prepared and obtained group-level approval for a 20% reduction of personnel, a slashing of the R&D budget to less than half its existing level and the closure of several facilities together with elimination of the related products from Semco's product portfolio.

While implementation of the plan had begun by July, 1990, the top management of Semco decided to convene a meeting of the 50 seniormost managers of the company for a detailed discussion of the situation and to evolve a work plan for implementation of the proposed changes. The meeting was scheduled for October, 1990 and one of the authors of this article was invited as a consultant to facilitate this meeting. Thus began our involvement with Semco.

This 3-day senior management meeting evolved into a regular system of quarterly meetings and triggered a cascade of such meetings at lower levels as the participants organized preparatory or follow-up meetings with their own subordinates. Between 1990 and 1992 we participated in several of such meetings, at different levels of Semco. We interviewed a number of managers each time to help structure the meeting's agenda and process, and provided pedagogical inputs in the course of the meetings on topics considered relevant to the business concerns of the participants. Besides, we also met with some of the key actors separately, and repeatedly, to discuss issues that had come up in such meetings or to offer suggestions on other proposals.

Between October, 1990 and December, 1992, Semco's financial performance improved steadily from a loss of about $150 million in 1990, break-even in 1991, and a profit of $200 million in 1992 in sales of $1.7 billion. The industry situation had not improved - in fact, because of the recession, both demand and prices of Semco's products had declined as had Semco's total revenues (but not market share). Managers within Semco as well as external

industry analysts believed that the 1992 profits were structurally sustainable, at least in the medium term. In the middle of 1993, pro-rata profitability continued on the upward slope.

In May, 1993, management of the holding group suggested that the story of Semco's turnaround could be a useful learning tool for managers of other group companies. Accordingly, we went back to Semco, this time in a research mode, to collect data for writing a case study. Together with a research associate, we interviewed 26 managers at different levels of Semco including 12 we had never met before. We also conducted group meetings with employees in Semco's different offices and factories and collected documents, including minutes of the meetings of the group board, confidential agreements signed by Semco with other companies, and others to which we did not have access earlier. The final case study not only described the internal actions and changes within Semco but also incorporated a fairly detailed analysis of the changes in the external environment over the same period of time.

The case study was discussed, on two different occasions, with the 100 senior most managers working in different companies within the group. On each occasion, the ten-person top management team of Semco was present, including its chief executive, and the discussions focused on what could be learnt from the company's successes and failures (of the latter, there were many instances). These discussions revealed some new information which were incorporated in a revised draft of the case study.

In our endeavor to build theory from the Semco case, we have attempted to use all the data and impressions that were gathered over the three years of our association with the company. Following Pettigrew's (1992) suggestions, detailed charts have been prepared reflecting the sequence of key activities and events, across multiple levels of analysis. An early attempt to create a single, comprehensive chart was soon overwhelmed with complexity and had to be abandoned in favor of separate charts that linked a specific set of actions to the different key outcomes. Highly simplified versions of some of these charts will be presented in the next section. At the end, however, the charts themselves could never provide definitive answers and Weick's (1989) portrayal of theory building as disciplined imagination is the best

description of the intuitive and interpretative process that led to the conclusions. The charts were the source for both discipline and imagination - each providing the opportunity for building conjectures while serving, collectively, as a screening device for what did not fit within a holistic explanation. The analysis covered a number of different issues, not all of which can be addressed in one paper. One of the key issues, however, was the interactive evolution of context and action - a gradual building of quality of management - that is the topic of this article.

BUILDING QUALITY OF MANAGEMENT:

Effects of Action on Context

Figure 2 provides a simplified overview of the key incidents and actions in Semco between June, 1989 and December, 1992. Indeed some of the specific actions listed in this figure would explain most of the improvements in the company's financial performance: the restructuring charges reduced financial expenses, the reduction of employement from 26000 to 19000 reduced wage and salary costs, and determined efforts to reduce inventory lowered both working capital needs and carrying costs.

- Figure 2 about here -

Yet, while all the employees of Semco we interviewed in March-April, 1993 acknowledged the importance of these specific actions on the financial performance of the company, they also highlighted a deeper change in the internal environment, caused in part by these actions but also in part by numerous others that were nowhere as dramatic or as visible. As described by a junior employee in one of Semco's oversees production plants:

> What matters most is that the smell of the place has changed. I now enjoy coming to work. It's not one thing, but overall its become a very different company.

As we pursued this issue of "the smell of the place" in all our interviews, requesting for descriptions and illustrations of what the "smell" was and how it came about, a pattern began to emerge. First, to our interpretation, the various attributes of the new context of Semco described by the interviewees in response to the "what" question appeared to fall along one of four dimensions which we finally labelled as (i) discipline, (ii) stretch, (iii) trust and (iv) support. Second, their description of "how" these dimensions of context came about provided maps of the effects of action on context, linking some of the key events and activities listed in figure 2 to one or more of the four dimensions of context. Some interviewees identified the same activity (e.g., a focused benchmarking exercise) as influencing more than one dimension of context (e.g., stretch and discipline). In other instances, while some interviewees identified one particular action (such as introduction of new cost accounting system) as contributing to the development of one particular dimension (such as discipline), others described the same action as contributing to other dimensions of context (such as trust). Table 1 provides a list of the six key events or actions that were associated by a significant number of interviewees with the four different dimensions of context. The numbers in the columns show the number of interviewees, out of 26, who made the related action-context link. The numbers at the bottom of the columns provide a total count of all interviewees who highlighted the associated dimension as a key element of the new context of Semco. Each of these dimensions and the processes by which they were built (i.e., the related set of action-context links) are briefly described below.

- Table 1 about here -

Discipline

18 out of the 26 interviewees mentioned an increased level of discipline as a key element of the new context at Semco. Included in the manifestations of discipline was not just timely management reporting and often extreme efforts for achieving agreed financial goals, but also a broader sense of what was described by many as "management by commitments". As explained by one of the interviewees:

> We now send our samples to customers in time, or at least we try our best. We phone back if we have said we would, and we turn up in meetings on time. If something has been decided in an earlier meeting, we don't reopen the issue. In fact, meeting your commitments has become kind of an ego issue, not just the inventory, cost or revenue targets but, more generally, doing what you promised.

As we put together the interviewees' explanations of why and how discipline became a key element in the context of Semco, it appeared that the actions listed in table 1, collectively and interactively, led to the development of (i) clear standards and expectations, (ii) a system of open, candid and fast-cycle feedback, and (iii) consistency in the application of sanctions. These three attributes, in turn, contributed to the building of discipline within the company (see figure 3).

- Figure 3 about here -

Clear standards: The establishment of clear standards had two elements: first, a set of standards had to be available for adoption and, second, those standards had to be accepted and committed to. While the exercise of benchmarking a highly successful competitor contributed the first element, transparency of the gap between the competitor's performance standards and those of Semco, together with the realization that the business might be divested with the accompanying pain for all, led to an emotional commitment to bridging this performance gap.

The company had conducted benchmarking exercises earlier, but what made the exercise in 1990 different was that the quality, believability and detail of the data were far superior. The data were furnished directly by the competitor, in the course of negotiations regarding their purchase of some of Semco's businesses. In contrast to data provided by external consultants or those collected from public sources, the highly disaggregated and fine-grained information provided by the competitor prevented debates on authenticity, comparability and a host of other such issues that had diluted the effects of earlier benchmarking exercises. At the same time, the new cost accounting system overcame some of the obscurity of internal performance levels. As a result, the performance gaps that were revealed were clear, believable and fine-

grained enough to pinpoint responsibilities and for establishing specific expectations and standards of performance at the level of small, disaggregated units and the individuals responsible for those units.

In Semco, as perhaps is true for many large companies, certain activities were considered to be of strategic importance to the future of the company and, therefore, the immediate financial outcomes associated with those activities were considered to be relatively less important. Consequently, the ability to get ones' activities to be seen as of strategic importance was a viable alternative to the unpleasant task of eliminating slack. In choosing items for the drastic cuts of 1990, the new CEO had firmly discredited this concept of "strategic importance" by retrenching a number of activities that were earlier considered as sacrosanct. Besides, the benchmarking exercise had also revealed that the competitor often made handsome margins on activities that managers within Semco had long insisted to be inherently unprofitable. The fear generated from this credible threat of retrenchment and the embarrassment caused by such comparisons played key roles in creating emotional commitment to achieving the new performance standards.

Fast-cycle feedback: The new accounting system and the system of quarterly meetings of the 50 senior managers of the company significantly changed the frequency, method and style of internal feedback. By eliminating certain kinds of information needs, the new accounting system provided provisional results for any fortnight within four days from the end of the fortnight. Rough weekly figures could be compiled by the Tuesday of the next week. The chief executive and the chief financial officer closely monitored these results and personally followed-up on any unanticipated outcomes. In contrast to the earlier system, the new system provided much faster feedback to the managers themselves and also much more immediate demands for explanations for which the managers had to be prepared.

While the accounting system improved the frequency of feedback, the quarterly meetings of the 50 senior managers enhanced openness, honesty and candor in the review process. The very fact of the 50 managers - representing five different management "grades" - meeting jointly

was a significant departure from past practices when few meetings (other than "broadcast" get togethers) involved more than two different management levels. Open review of all aspects of performance in such a forum created a process of indirect peer-review and led to the discrediting of overtly political or obfuscating behaviors. The chief executives' personal style of candor also contributed to the disciplinary impact of these meetings.

Over time, most managers institutionalized similar meetings within their own organizations to prepare for or to communicate the outcomes of the senior managers' meeting. As a result, the new standards as well as the new norms of candor and honesty in feedback cascaded down into lower levels of the organization.

Consistent sanctions: Finally, the third key contributor to discipline was the consistent application of sanctions. The need to reduce employee strength made it necessary for managers at all levels to choose among their people and tolerance of what was internally referred to as "satisfactory underperformance" was no longer possible. The chief executive, a believer in "not delegating unpleasant tasks", established a norm of applying sanctions by personally censuring both poor performance and also unacceptable behaviors among senior managers. Replacement of a number of key managers including the chief financial officer and the powerful heads of two of the largest business units created credibility for the slogan of "no excuses" that many managers displayed in their rooms. At the same time, careful review by the corporate human resource group prevented arbitrariness in the process and well publicized reversals of two openly political dismissals helped establish the norm of fairness and consistency in the application of sanctions.

Past research in the organizational behavior field has identified some of the elements we have described, such as the establishment of standards, as important constituents of an organization's climate (e.g., Litwin and Stringer, 1968), but has viewed them as influencing individual motives for achievement, power and affiliation rather than as the building blocks for creating the norms of disciplined conduct. Research in the strategy field, in contrast, has highlighted the roles of strategic and operational control as important levers of the corporate

influence process (Haspeslagh, 1986) but discipline represents the behavioral outcomes, influenced in part by such control mechanisms, rather than the exercise of control, per se. Discipline is also reflected in a far broader set of day-to-day activities than the specific performance outcomes that are the focus of the control processes. It represents a way of life, a norm applicable to all tasks, rather than compliance with a well-defined set of contracts embodied in a company's strategic and operational control tools. To summarize our discussions on discipline in the form of a proposition:

P1: Discipline is an attribute of an organization's context that induces its members to voluntarily strive for meeting all expectations generated by their explicit or implicit commitments. Establishment of clear standards of performance and behavior (clear standards), a system of open, candid and fast-cycle feedback (fast-cycle feedback), and consistency in the application of sanctions (consistent sanctions) contribute to the establishment of discipline.

Stretch

> Another major change is how we think about targets. In the past, everything was 5%. If anyone proposed changes bigger than that, he was immature, he didn't know his business. Now, if you propose a 20% cut in inventory, you are a bit embarrassed because someone else is shooting for 25%. That too has become a part of life - how far can we go? And that is a fun game!

This comment from one of the experienced factory managers of Semco highlights another key change in the company's context. Following Hamel and Prahalad (1993), we call this "stretch" - an environment in which individuals stretch their own standards and expectations and voluntarily strive for more than incremental improvements.

The events and actions listed in table 1 led to three attributes that collectively built this environment of stretch: (i) the establishment of shared ambition, (ii) the development of a collective identity, and (iii) a personal significance for managers, beyond official duties and formal responsibilities, in pulling Semco out of its difficulties (see figure 4).

- Figure 4 about here -

Shared ambition: The same process that led to the establishment of clear standards also helped build a shared ambition among Semco managers. Clarity of the performance gaps revealed by both the external benchmarking and the internal measurement system, together with the realization that the whole business and their own jobs were at stake, led Semco managers to an emotional commitment to achieving highly stretched goals. But the overall ambition went beyond these goals aimed at bridging the existing performance gap: by 1992, the managers of Semco had begun to believe in a future of profitable growth and reputation for excellence in specialized market niches. Some early successes and visible celebration of those successes played an important role in converting the desire for survival into this ambition for excellence.

One of the outcomes of the quarterly senior managers' meeting was a collective decision to focus the entire organization on achieving significant improvements in four key performance areas: to reduce the development time for new products (the "time-to-market" project), to cut the cycle time from when a customer order was taken to delivery of the product (the "make-to-market" project) to shorten customer response time (the "customer satisfaction" project), and to prune the unwieldy list of 15000 product offerings (the "portfolio choice" project). Each of these projects had been entrusted to a project team consisting of managers from different parts of the company. While these company level project teams established the standards and the methodologies and monitored improvements, the actual work was carried out by a large number of unit-level project teams that focussed on a set of specific tasks associated with each project.

Some of these unit level project teams began to achieve fairly dramatic improvements in performance from the middle of 1991. As these outcomes became visible, they led to a growing confidence that not only could the company match "best-in-class" performance but, at least in selected areas of strength, they could surpass those standards. By the end of 1991, these successes started spreading from areas of existing strength to other areas, through transfer of best practices and shared work in the project teams. Combined with improving

financial results, this new-found confidence complimented the fear of failure in creating the shared ambition for excellence that had become fairly widespread by the end of 1992.

Collective identity: While formally a separate company, in the past Semco had been a part of a broader "division" of the holding group that also included a number of other companies involved in electronics-based industrial intermediate products. A group-level manager headed the division and carried the mandate of achieving synergies among these activities.

In January 1990, Semco broke away from the division and was accorded the status of a division by itself. This separation played a key role in building a collective identity among Semco's managers. As described by the new chief executive,

> If you really want a group of people to set collective goals and to become part of a team - it does not help to be part of a broader management group with many other concerns. (The division) was kind of a holding company - we needed to find our own way to do things together.

The split from the other businesses also lead to a gradual integration within and across the different functional groups of Semco. In the past, the national sales organizations selling Semco's products in different national markets also sold the products of other companies within the division, and these organizations reported to the country managers who represented the overall group in those countries. After the split, Semco specialized its own national sales organizations which were consolidated under a corporate level marketing manager in the headquarters of the company. Similar specialization was also achieved in the product development units. Freed from the interdependencies with the other activities, these dedicated units could build stronger links among themselves and the resulting horizontal integration also helped building collective identity.

A formal mission statement, jointly created and adopted by the 50 senior managers, had an interesting history. The new chief executive of Semco did not believe in mission statements and agreed to adopting one only on the insistence of the broader group. While the statement

had been duly printed and ceremoniously distributed in early 1991, it had almost no effect in the organization till about a year later. By 1992, as the company's performance improved, more and more managers began to refer to the mission statement and to use it as a guideline for their choices. Debates on resource allocation, on new product development priority, on content of management development programmes and a variety of other such activities often used the mission statement as a basis for arbitration and decisions. By the end of 1992, the statement - describing both the company's business priorities and its organizational values - was increasingly serving as a catalyst of collective identity within Semco.

Personal meaning: As indicated earlier, the system of quarterly meeting of the senior managers led to a cascade process with similar meetings being held at lower and lower levels of the company. Increasingly, these meetings focused on the four priority projects. The meeting of the top 50 managers established targets, with regard to each of the four areas, for all business units. The business unit level meetings broke down the targets for each product group; the product group level meetings translated them at the level of each factory, development team, and marketing group. As a result, a situation was created in which more and more individuals had focused targets and also had a clear picture of how his or her own tasks contributed to the overall performance of the company along one or more of the four priorities. Most of the interviewees believed that this explicit and visible association between ones' own work and the overall priorities of the company created a sense of personal involvement that gave meaning to each individuals' work. This association, in turn, created the motivation for stretch at the individual level.

As we have pointed out earlier, the strategy process literature has tended to view organizational context in terms that are almost antithetical to stretch: in the work of both Bower and Burgelman, context defines the constraints that individuals must work within and, at best, push against for incremental changes over time. The literature on organizational climate, developed mostly in the 1970's during the heydays of the human relations school and influenced by the agenda-setting studies of Argyris (1958), McGregor (1960) and Tagiuri and Litwin (1968), has tended to focus more on the attributes of consideration, warmth and

support in interpersonal relations and stretch has been seen primarily as a motivating tool in individual or group-level goal setting tasks (e.g., Latham and Locke, 1979). In contrast, we believe that the extent of stretch is a key element of the internal environment of an organization that influences the aspiration levels of individuals engaged in all kinds of activities - from ongoing improvement of existing and relatively standardized tasks to the creation of new products and businesses. We offer the proposition:

P2: Stretch is an attribute of an organization's context that induces its members to voluntarily strive for more, rather than less, ambitious objectives. Establishment of a shared ambition (shared ambition), the development of a collective identity (collective identity), and clarity on how the tasks and responsibilities of individuals contribute to the overall purpose of the organization (personal meaning) contribute to the establishment of stretch.

Trust

16 of the 26 managers believed that an important change in the environment of Semco was that people had begun to trust one another. This was a sharp departure from the situation in 1989 when managers in one business unit of the company had been discovered advising one of "their" customers not to deal with another business unit that was soliciting the customer for a very different set of products. In contrast, by 1992, the different business units were collaborating actively - for example, creating a shared CAD/CAM system and working jointly to create new products - and growing trust was seen as a key contributor to this spirit of cooperation.

In describing how such trust was developed, the interviewees highlighted three contributing factors: (i) the combination of transparency of performance created by the new accounting system and extensive working in project teams had led to a higher level of perceived fairness and equity in the company's decision processes, (ii) people had a considerably higher level of involvement in different activities, and (iii) the specialized expertise and industry-specific experiences of the new chief executive and other members of the senior management team, and the resulting bias towards specialists rather than generalists at lower management levels, had

developed what was seen to be a greater level of competence in the organization. Trust was a product of these characteristics of equity, involvement and individual-level competence (see figure 5)

- Figure 5 about here -

Equity: Perhaps the first and also the most important contributor to the growing sense of fairness in Semco was the process by which the 20% reduction of personnel was implemented. Unlike earlier mild cutbacks, this was an unprecedented experience for the company and most employees expected a politicized process in which the share of the cuts, for different units, would be based on the political clouts of the unit managers. Instead, the cuts were decided in collective meetings, based on objective data of benchmarked performance and business priorities, and no changes were made through "corridor deals".

The change in the internal structure of Semco also contributed to the development of a sense of fairness. Up to 1989, the different business units of Semco were structured according to the technologies they used. In early 1990, the new chief executive restructured the business units so that each focused on a specific set of end user industries. This change increased the level of interdependencies among the units, particularly in the area of technologies and manufacturing, and led to the creation of forums for managing these interdependencies and for resolving disputes. While increasing the level of conflict, at least initially, these forums also created shared information and at least the perception, if not the reality, of internal equity.

Involvement: As described earlier, between 1990 and 1992, team work within and across units had increased considerably in Semco. The large number of project-groups working on different aspects of the four company-wide projects accounted for much of this new team work. But the system of quarterly meetings, at different levels of the organization, was also seen as creating greater involvement of people in decisions that affected their work. The large number of participants in each of these meetings, and the number of vertical layers they spanned, expanded both participation and information access. Even when decisions ran

counter to the positions and interests of individuals, they had the opportunity of advocating those positions and also of developing a better understanding of the counter arguments. Involvement enhanced the transparency of outcomes as well as the perception of fairness in the process, thereby improving mutual trust among people.

Competence: The new chief executive, an engineer and industry expert, believed that a high technology company like Semco must be managed by specialists, not generalists (like his predecessor). The two new business unit managers he brought in were also specialists, one in the related technologies and the other in production. A number of changes were also made in the new, dedicated sales organization to increase the level of specialization in the company's marketing efforts. In factories, people with experience in the specialized production process were brought in. Overall, in the three year period, not only the top management but the entire company developed a more technical and specialist orientation.

This specialization was seen as increasing the level of competence that was another contributor to increasing trust. As described by one manager:

> Trusting someone in the bar is different from trusting someone in the business. Ours is a high-tech outfit. I need someone at the other end who knows what I am talking about. I can spare him a CAD/CAM guy, if he desperately needs one, but I must be sure that he can spare a logistics expert if I need one someday... It is easier to build cooperation among people who know the technical aspects of the business.

Given their focus on strategy, structure and systems, neither Bower nor Burgelman explicitly identified trust as a part of an organization's context and implicitly suggested the lack of trust as almost a given in large, complex organizations (see, for example, Bower's description of the highly politicized impetus process). The importance of trust features prominently, however, in the literatures on organizational climate (Campbell, Dunnette, Lawler and Weick, 1970) and culture (Deal and Kennedy, 1982; Ouchi, 1981). Existing research has also identified the importance of equity (e.g., Folger and Konovsky, 1989) and involvment (Kim and Mauborgne, 1993) in the building of trust. What we add is the importance of competence as a pre-requisite

for trust which, though suggested in the early research on context (McGregor, 1960), has not received adequate attention in more recent work. Particularly for organizations engaged in complex and specialized activities, individual-level competence, we suggest, is almost as important for creating an environment of mutual trust as the process attributes of fairness and participation. Accordingly we propose:

P3: Trust is an attribute of an organization's context that induces its members to rely on the commitments of each other. Fairness and equity in the organization's decision processes (equity), involvement of individuals in decisions and activities affecting them (involvement) and staffing of positions with people who possess and are seen to possess the required capabilities (competence) contribute to the establishment of trust.

Support

In identifying support as an element of the context in Semco, the interviewees pointed to two basic features of the new management approach of the company. First, because of increasing cooperation, it had become easier to access company resources (such as a CAD library) located outside of one's own unit. Second, the role of senior managers had changed significantly. There was increasing freedom of initiative at lower levels, and senior managers focused less on consolidation and control and more on coordination and providing personal help and guidance. Collectively, (i) this increased availability of resources and tools together with (ii) greater autonomy and (iii) more help created an environment that supported rather than constrained lower-level initiatives and entrepreneurship (see figure 6).

- Figure 6 about here -

Access to resources: Because of conflicts within the top management team and a structure that emphasized the independence of each business unit, cross-unit cooperation had historically been limited in Semco. Beyond the unwillingness to cooperate, the autonomous units had created mechanisms that prevented cooperation even when desired. For example, each unit had adopted a different IT system, with different CAD/CAM software that prevented access to each others' design libraries.

The changed structure as well as the changes in personnel significantly lowered these vertical barriers and made it far easier for individuals to access resources in different parts of the company. A shared CAD system, for example, led to a collective library that all could use. The consolidated sales organization allowed salesmen in one country to use the literature or an order control system developed by another. Unity in the top management team allowed an unit in the U.K. developing a new product to use the services of an expert in another unit in Germany. Such access to resources was seen as a key enabler of decentralized initiative at operational levels.

Autonomy: Most interviewees credited the chief executive for radically decentralizing the management system of Semco. A firm enforcer of "management by commitment", he was also an equally enthusiastic believer in decentralization. While he challenged all the managers to propose stretched targets, he rarely changed those targets by fiat, and he gave full freedom to unit managers on all operational matters.

Up to early 1991, two of the old-time business unit managers had maintained their traditional authoritarian style, and this had blocked the chief executive's drive for decentralization. In 1991, he replaced both these managers with two young technical experts. With limited general management experience, no established track record and an inherent preference for decentralization, these two managers played a key role in creating more freedom not only for their direct subordinates but also at lower operating levels.

The new accounting system was also cited as a facilitator of decentralization initiative. While the earlier system provided profitability estimates at the level of the business units, the new system focused lower, at the level of product groups. The information was also more reliable and was available more quickly. With such a system, managers could identify problems more quickly and could intervene before it was too late. Consequently, they felt less inclined to interfere with operational activities on a day-to-day basis. As described by one of the

interviewees, "The rigor of the new system allowed better control. That, in turn, reduced the need for back seat driving".

Guidance and help: While greater freedom for lower level initiative was one consequence of decentralization, another was some significant changes in the roles and tasks of senior management. As described by one of the new business unit managers:

> I see my role as that of a coach - helper, supporter, teacher. I have to influence the overall strategy, and we have made some progress in specializing units to better use our resources. I have to play a role in coordinating across those units. But beyond that, my job is to help and guide, to provide advice, and to protect my people.

As of the end of 1992, there were some significant differences in the role senior management played in different parts of Semco, but a greater focus on help rather than control was seen as a broad trend. The move from generalists to specialists in the management team, together with the replacement of older, more entrenched managers with younger and recently promoted people were seen as contributing to this shift.

Two other developments were cited by some of the interviewees as enhancing the quality and extent of help available to operating personnel in the company. As we have described earlier, greater horizontal cooperation caused by the joint work in meetings and project teams opened up access to resources and advice from other units that were historically blocked in Semco's hierarchical organization. The other source of guidance and support emerged from a fairly substantial change in the role of the company's central staff groups.

The historically powerful staff groups had suffered the largest cuts in their budgets and had shrunk by over 40% in size. The large, open meetings had also destroyed their traditional control over information flows. Greater cooperation among the chief executive and the four business unit managers had further curbed staff power by reducing their importance, and hence access, to the top management. Finally, the new heads of the finance, logistics and human resource functions had brought in a new philosophy that the staff must work for the line rather

than the other way round. All these developments collectively led to a sharp change in which the legitimacy and influence of any staff member increasingly came to depend on the extent of help the line managers perceived (and proclaimed) as receiving from him or her.

Much of the work on organizational context in the strategy field has been carried out in relatively large, divisionalized corporations. The companies studied by Bower, Burgelman and Haspeslagh have all represented variations of the fairly hierarchical and bureaucratic M-form structure (Williamson, 1975; Chandler, 1962). In such organizations, roles of senior managers have tended to focus more on control than on support (Peters, 1992) and, accordingly, there is little reference to support as an element of context in the work of these authors. On the other hand, organization theorists studying context have tended to focus on smaller organizations and on professional groups such as R&D scientists in larger organizations (e.g., Abbey and Dickson, 1983) and have consistently found support as a key element of an organization's internal environment. To summarize our proposition on support:

P4: Support is an attribute of an organization's context that induces its members to lend assistance and countenance to others. Mechanisms that allow actors to access the resources available to other actors (resource access), freedom of initiative at lower levels (autonomy) and personal orientation of senior functionaries that gives priority to providing guidance and help over exercising authority (guidance and help) contribute to the establishment of support.

INFLUENCING BEHAVIOR

Effects of Context on Action

Efficient, energetic and well-functioning organizations surround us. Their ability to continuously improve their own productivity underlies the last two decades' uninterrupted economic development and their talent for creating new products and services has consistently improved the quality of our lives and surroundings. To allow the pathologies of individual organizations or even the collective failings of particular groups of organizations in specific societies to blind us to this broader reality of organizational health and effectiveness would represent an extreme case of selective attention.

This effectiveness of organizations, in turn, is based on human agency: the energy, creativity and determination of individual members. While the actual exercise of agency may vary, depending on a host of individual and organizational-level attributes, organizational life is a life of actions, not all which of are routine or involuntary. Overall, among organizational members, commitment is more common than alienation, and cooperation predominates over self-aggrandizement. While there is no systematic evidence for these assertions, social and economic life would not exist, in the form they do in large parts of the world, if the opposite statements were true.

Yet, it is not action but constraints to action that has dominated research on organizations over the last two decades. As a result, we have developed an increasingly sophisticated understanding of those constraints, but have learnt less about how, despite those constraints, action still emerges, in so pervasive a way, in organizational settings. Discipline, stretch, trust and support, we suggest, are the key attributes of an organization's internal environment that help create the context for action. Distributed and self-generated initiative, mutual cooperation, and collective learning - attributes of human behavior far more common in organizational reality than is usually reflected in organization theory - are products of interactions among these four elements of what we have described as quality of management (see figure 7)

- Figure 7 about here -

Distributed Initiative

A major source of Semco's performance improvement between 1989 and 1992 lay in the increased efficiency of its production plants. Beyond implementing the reductions in employment and inventory decided and monitored by the senior managers of the company, the production plants had also achieved significant improvements in throughput time, cost of rework, level of waste and other such operating parameters. Much of these improvements

originated from the suggestions and actions of the self-managing production teams in which a number of these plants had been reorganized.

In a small plant in rural Scotland that we studied in some depth, throughput time, for example, had fallen from 62 days to 24 days. Almost all of this reduction represented the cumulative effect of small incremental changes initiated by the factory workers to improve equipment layout, the handling of intermediate products, and the structuring and allocation of tasks within their production teams. While some of these actions helped enhance the employees' total wages, many did not and, in a number of instances, the improvements led to reductions in staffing levels and in the opportunities for overtime work. By the end of 1992 such distributed initiatives, aimed at achieving corporate rather than personal benefits (though often the two were inextricably interlinked), had become common place in many parts of Semco. To our analysis, such initiatives were triggered primarily by the joint effect of stretch, trust and discipline.

Initially, the key motivation for such self-generated initiatives lay in the desire for survival. Individually, most units of Semco confronted the possibility of closure; collectively, the whole business faced the uncertainty of potential divestment. The 20 percent reduction in employment had made each individual cognizant of this risk and the resulting apprehension played an important role in overcoming the earlier attitude of indifference and the propensity for shirking.

However, from early 1992, as the attributes of shared ambition, collective identity and personal meaning had begun to percolate through the environment of Semco, a desire for achieving excellence had begun to replace the fear of retrenchment as the key motivation for such initiatives. Widespread dissemination of the competitive benchmark data and of the mission statement appear to have played a key role in this change. As described by one of the factory workers,

> We see the charts (operating performance of a key Japanese competitor that was displayed throughout the factory) and we say that's not fair! We can't run behind

> the Japanese! If we want to get bigger, we must do better than them. We must be the best, as we say (in the mission statement). So, we talk about that in the team, and we try.

A growing level of trust - in each other and also in the collectivity that the employees referred to as "the management" - played an equally important role in facilitating such initiatives. Removal of three supervisory layers between the plant manager and the front-line worker together with the creation of self-managed work-teams enhanced the level of employee involvement in work processes. Extensive information sharing through candid discussions in open meetings modelled on General Electric company's "work-out" process (Tichy and Charan, 1989) strengthened both the reality and the perception of such involvement. Removal of a number of poor-performing managers and the recruitment of a few experienced and visibly enthusiastic replacements restored a feeling of both equity ("managers also lose their jobs") and confidence in the management.

Finally motivation and trust were not enough for generating such initiatives; discipline was another key requirement. In particular, the total quality process adopted by the plant together with the associated tools for continuous measurement and feedback provided the data required by the employees to initiate and maintain such initiatives. As described by the same factory employee we quoted earlier,

> Earlier we didn't know how many wafers we put in, how many we got at the end and what time we took. We didn't know how we spent our time. Now we can see, for each team, for each shift - how much we got. That's how we found that we were spending too much time running between the benches. So, instead of one of us looking after two testers, we said let's each look after four and we can have two runners to move the batches. That increased our output 20 percent. We keep making such changes and checking in the charts (flag charts showing daily performance data) if things are getting better.

Based on these observations and on the strength of similar findings in a variety of other organizations (Kouzes and Posner, 1987; Bennis and Nanus, 1985; Hamel and Prahalad, 1989; Westley and Mintzberg, 1989), we offer the following proposition:

P5: Organizations that are able to establish stretch, trust and discipline as attributes to their context can motivate and enable distributed and self-generated initiatives that are aligned with the organizations' objectives and interests.

Mutual Cooperation

As we have described in the preceding section, conflict and often explicit and active opposition to others' initiatives had been widely prevalent in Semco prior to 1989. Over the three year period of its turnaround, the extent of voluntary cooperation among individuals within and among the different units increased substantially, according to almost all the people we interviewed, and the emerging attributes of trust, discipline and support played a key role in facilitating such cooperation.

To cite a specific case, one of the units of Semco in Germany had historically focused on producing specialized components for telephones. Another unit in the U.K. had similarly specialized on electronic equipments used in automobiles for both entertainment (such as the car radio) and functionality (such as equipment for controlling the automatic transmission system). As a booming market emerged for components of car telephones, both the units claimed jurisdiction over this new business opportunity.

As described by the managers responsible for each of the two units and also the executive in-charge of guiding Semco's new product development activities, in earlier times such a situation would most likely lead to one of two consequences. Either both units would have mounted parallel and competitive efforts to develop car telephone components, or both would abstain, expecting the other to take the lead. In contrast, as the situation developed in 1990, the two unit managers directly negotiated a cooperative arrangement: the U.K. unit would develop the new product, drawing on its understanding of the automobile market, while the German unit would contribute to the development - primarily its technical expertise on telephony - by allocating two of its engineers to work full time on the project for a period of six months with the expenses being borne by the U.K. unit.

According to both unit managers, a growing appreciation of each other's competence in their respective areas played an important role in the evolution of this cooperative outcome. Both managers had participated in a number of joint meetings and had worked together in one task force in which process each had visited the others' plants. As described by one of these managers,

> It was clear that they (the U.K. unit) really knew about the in-car business - they had people who knew more about cars than design engineers I know in car companies. While we certainly knew more about telephones, it was obvious that the real trick would lie in getting some edge for in-car use, and they were light years ahead of us in being able to do that.

Beyond the recognition of each others' competence, equity and involvement - the two other elements of trust - also played facilitative roles in bringing about cooperation. Participation in the quarterly meetings had led to each of the unit managers becoming fully aware of the overall situation of Semco, and to the urgent need for resource conservation. They saw themselves as among the actors engaged in building the "new Semco" and the cooperative solution was clearly the more consistent with the new rhetoric they had experienced and contributed to in these meetings. The environment of "esprit de corps" convinced the manager of the German units that his contribution to the project would be remembered, by both the U.K. unit and the top management, and would be reciprocated and rewarded when the opportunity arose.

> Now, there is memory in the system: such actions are openly discussed - so everyone knows. And everyone believes it is important to act together; so it is rewarded, at least indirectly. And I know John (the U.K. manager) wants to get even, to do something for me in turn, and that's money in the bank.

If trust played an important role in motivating cooperation, discipline and support were key to its successful consummation. One reason such cooperative efforts were avoided in the past by most units of Semco was the complex interdependencies they tended to create and the time and effort that had to be expended for managing such interdependencies and the resulting conflicts. With the new norms of discipline, the process of developing the new product became

considerably more efficient. Clear objectives and schedules were established at the outset and conflicts were minimized as both units tried to and, in general, succeeded in keeping to their commitments. The supportive role of senior managers and of the corporate staff groups reduced the time the unit managers themselves had to spend on coordinating the joint efforts. While the decision to cooperate was taken laterally, by the two unit managers, and while the actual work was managed by a project team in which engineers from both units participated, the corporate R&D coordination group acted as a key resource for the project team, speeding up the process by providing both administrative and technical support on an as-needed basis.

The importance of trust and support as a pre-requisite for cooperation has been highlighted by a number of authors (e.g., Granovetter, 1985; Dore, 1983). Others (e.g., Alchian and Demsetz, 1972) have emphasized the importance of discipline for effective teamwork. Drawing on our own observations in Semco and also on this supporting literature, we propose:

P6: Organizations that are able to establish trust, discipline and support as attributes of their context can motivate and enable voluntary cooperation among actors that are aligned with the organizations' objectives and interests.

Collective Learning

> They have broken what used to be considered as an iron-rule: when revenues are below budget, profits must also be below budget. In 1992, because of the recession, their sales were way below plan. But they still made their profit and cash flow numbers.

This comment about the performance of Semco from the chief executive of the holding group emphasized a fundamental change in the company's strategic approach. Historically, Semco managers had accorded the highest priority to achieving high-volume production of standardized products both for exploiting economies of scale and also for accumulating technical skills that could be leveraged in other high-margin niche products. This was the industry recipe (Spender, 1985) and the pursuit of this strategy had led Semco to a high fixed cost infrastructure and, hence, the iron rule. By 1992, the company had altered its strategy to focus on relatively low-volume application-specific products and had brought down the break-

even point significantly by converting fixed costs to variable costs, thereby increasing its flexibility to maintain profits in the face of industry downturns.

Argyris and Schon (1978) would describe this change as an example of double-loop learning. It did not emerge, however, from a formal strategic analysis but was a rather a product of cumulative learning from a diverse set of actions in different parts of the organization, much in the way described by Mintzberg and McHugh (1985). One particular business unit eliminated a relatively high volume but loss-making activity from its portfolio, initially against the advise of others. Subsequently, as the business unit succeeded in reducing its costs to more than offset the loss of revenues, other units began to imitate the same logic. Quite independently, another unit "sold" its software group to a consulting company to whom they then sub-contracted their software development tasks. As the advantages of reduced breakeven levels and improved productivity became clear, others initiated similar actions. Over a two year period, the initiation and diffusion of such practices cumulated into a new operating logic that slowly began to be referred to as "management by anticipation", i.e, anticipation of possible contingencies and proactive initiation of measures to achieve budgeted profits inspite of potential downturns. This logic was finally formalized as a strategy statement in the company's 1993 business plan that elaborated a new business model with associated changes in product-market focus and in the structure of internal activities and costs.

Yet, the process was far from one of random variation either. Each of the dispersed initiatives was influenced by the emerging elements of Semco's context. The externalization of software development was driven by the same influences of stretch, trust and discipline that triggered other similar initiatives. Both the success of the initiatives and their subsequent diffusion required cooperation which was a product of trust, discipline and support. In other words, collective learning emerged from distributed initiative and mutual cooperation which, in turn, were the products of the four elements of quality of management we have described.

In a recent review of the burgeoning literature on organizational learning, Huber (1991 : 92) has lamented that "in spite of the importance of organizational experiments as learning

mechanisms, the literature contains very few studies of experimentation by organizations". However, his speculations about the antecedent conditions that lead to organizational experiments focus on the attributes of trust, high needs of performance (stretch, in our words) and tolerance for mistakes (which, we believe, requires a combination of trust, discipline and support). Similarly, Duncan and Weiss (1979) have identified the recognition of a performance gap (a source of stretch), trust, and information about the outcomes of actions (fast-cycle feedback) as the key requirements for learning. Accordingly, we offer the proposition:

P7: Organizational learning results from a combination of distributed initiative and mutual cooperation which, in turn, require stretch, trust, discipline and support as the antecedent conditions of organizational context.

SUMMARY AND IMPLICATIONS:

Need for a managerial theory of the firm

A cross-sectional analysis may attribute performance differences among companies to specific aspects of their strategy or organization. Such an analysis begs the question of why and how companies adopt such strategies or organizations. In this paper, we have argued that such strategic or organizational choices represent the cumulative consequences of individual-level actions within the company. Such actions, in turn, are influenced by the company's internal environment - its organizational context. We have highlighted discipline, stretch, trust and support as the four key attributes of context and have identified the factors that contribute to the development of each of these four attributes. We have also described how these elements of context influence distributed initiative, mutual cooperation and collective learning - the outcomes of individual-level actions in organizations. Overall, we have presented a model of the interactions between context and action and have suggested how these interactions influence organizational effectiveness.

In the introductory section we have acknowledged the many limitations of this study. What we have offered are some preliminary and speculative proposals, drawn from our interpretations of a fairly remarkable turnaround case. Clearly, much more systematic and rigorous research is

necessary before these proposals can be of use for either explanation or prescription. In this concluding section, our objective is to argue why these proposals deserve such research attention.

In their recent review of research on strategic management, Rumelt, Schendel and Teece (1991 : 7) have described the dual perspectives that lay at the center of the field during its early evolution: "that of the firm as a whole, including its performance, and that of the role of the general manager". Over the last two decades, however, the field has focused increasingly on strategy, i.e., where and how a firm would compete and, to a lesser extent, on the associated requirements of organizational structures and processes. The issue of management, ie, the roles and tasks of general managers, has been largely ignored, at least in the more academically-oriented literature. While this research gap has been noted and lamented (e.g., by Hambrick and Mason, 1984), recent efforts to regenerate interest in this topic have focused on issues of top management demographics and compensation rather than on the question of how general managers can or do contribute to the performance of firms.

The model we have presented here is influenced by and contributes to the argument that the main influence of general managers lies in their role as shapers of an organization's context. At unusual times and on unusual issues, they may make personal decisions that have important performance implications - such as the set of decisions on divestment, retrenchment and personnel changes the new chief executive of Semco took in the face of acute crisis. On a more ongoing basis, however, the main contribution lies in embedding the characteristics of stretch, trust, discipline and support as the norms that influence day-to-day behaviors and actions of individuals within their organizations. While this view avoids the false and sterile debate between the advocates of unimpeded voluntarism and insurmountable determinism, our conceptualization of context suggests a much more purposeful and influential role of general managers than is foreseen by either Bower or Burgelman. In fact, the voice in the literature closest to our findings belongs to Barnard who considered distributed initiative and mutual cooperation - what he called "the willingness of individuals to contribute force to the cooperative system" (1938 : 83) - as a central requirement for effective organizations. He also

identified the importance of stretch and trust - the ingredients for creating a shared purpose in his scheme - for motivating such voluntary contributions "for the good of the organization" (p 200). And while he did not explicitly refer to the attributes of discipline and support, the implications of what he called "the moral factor" (p 261) are not very different from what the Semco manager described as "management by commitment".

Given these views on the requirements for organizational effectiveness, Barnard saw the main role of general managers as the exercise of leadership to "inspire cooperative personal decisions by creating faith: faith in common understanding, faith in the probability of success, faith in the ultimate satisfaction of personal motives, faith in the integrity of objective authority, faith in the superiority of common purpose as a personal aim of those who partake in it" (1938 : 259) The model we have presented describes the anatomy of such faith and suggests the tools available to general managers for creating the conditions for effectiveness described by Barnard. While it presents some measurement difficulties, the model is testable and its refinement, modification and elaboration provides an avenue for reintroducing to strategy research the question that originally created and legitimized the field.

At stake in such extension and possible validation of the model is not just the possibility of developing normative proposals on how general managers can influence the performance of their companies but also broader issues that are more fundamental to organizational theory. Our observations in Semco sit ill-at-ease with some of the assumptions of currently dominant theories and suggest the need for rethinking those assumptions. While recognizing once again the inadequacy of speculative inferences from a single case in challenging fundamental premises of firmly entrenched paradigms, we do so, never-the-less, in keeping with the spirit and objectives of this special issue.

Almost since the beginning of formal research on organizations, it has been recognized that the organizing task involves a balancing of two somewhat contradictory objectives (see Reed, 1985). On the one hand, organizational effectiveness depends on the willingness and ability of individuals to take personal initiatives, and on the structure, processes and norms organizations

need to facilitate such initiatives. On the other hand, individuals are also subject to certain failures and limitations and the same structure, processes and norms must also protect the organization from those pathologies of individual behaviors and actions.

Much of the earlier work on organizational theory focused on the first objective, often at the cost of underemphasizing the second. Over the last two decades, however, a set of economic and behavioral theories have come to the fore which focus almost exclusively on the second objective. These theories tend to deny the existence of shared purpose or collective ambition: as stated by Cyert and March, for example, "individuals have goals, collectivities of people do not" (1963 : 26). In any event, goals are presumed to be evoked by problems and by experiences of the past rather than by ambition or from aspirations for the future. Similarly, opportunism rather than trust or self-discipline has become the preferred behavioral assumption (Williamson, 1975). As a result, conflict among disparate sub-unit goals is seen as pervasive and incentives and fiat are viewed as the key mechanisms for achieving cooperation. And, while the new analysis has consistently claimed to be inspired by the old (see, for example, Williamson's (1975, 1990) references to Barnard), in reality, the sharp reversals in the assumptions about human behavior have led to fundamentally different analyses and prescriptions. Such differences are manifest, for example, in the role accorded to incentives in agency theory, transaction cost economics and even in the recent elaboration of the behavioral theory of the firm which stand in sharp contrast to the views of Barnard who believed that "it is utterly contrary to the nature of men to be sufficiently induced by material or monetary considerations to contribute enough effort to a cooperative system to enable it to be productively efficient to the degree necessary for persistence over an extended period (1983 : 93).

The underlying assumptions of these dominant theories are just that - assumptions that are either untested or tested only very indirectly. Actual contextual observations within large firms often contradict these assumptions (e.g, Bennis and Nanus, 1985; Hamel and Prahalad, 1993) but typically these studies are seen as "practitioner-oriented" and they have little impact on the mainstream of theory. This, we believe, is the principal cause for the widening gap between

positive and normative analysis in the fields of strategic management and organizational behavior. Concepts like stretch, trust, discipline or support have little relevance in existing theory. Yet, we believe they are of central importance for organizational effectiveness. More and better research can perhaps help resolve this contradiction by building what might be called a managerial theory of the firm - a positive theory grounded in the realities of contemporary practice and incorporating the language of practitioners. Our effort here, constrained as it is by limitations of knowledge, skills and data, is a small step in that direction.

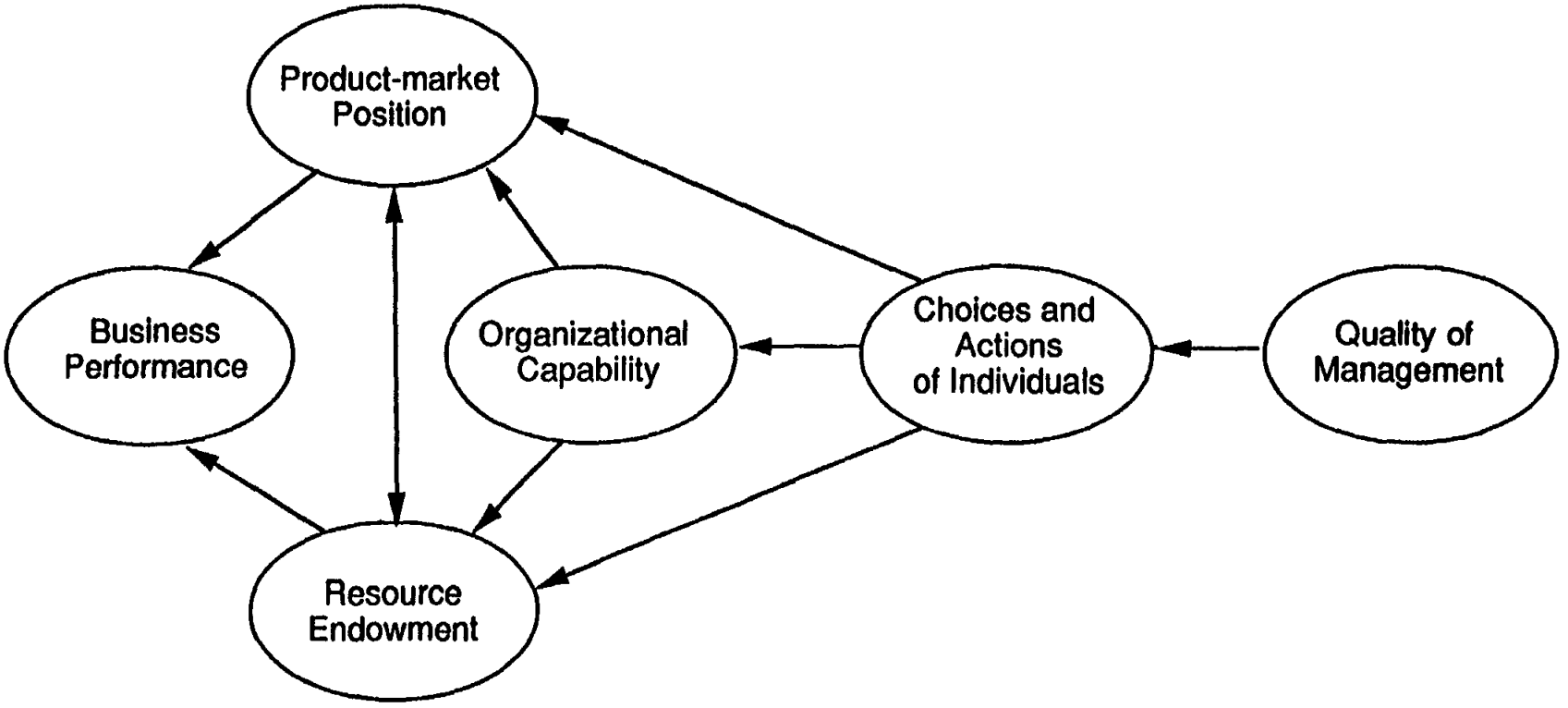

Figure 1
The Causal Chain

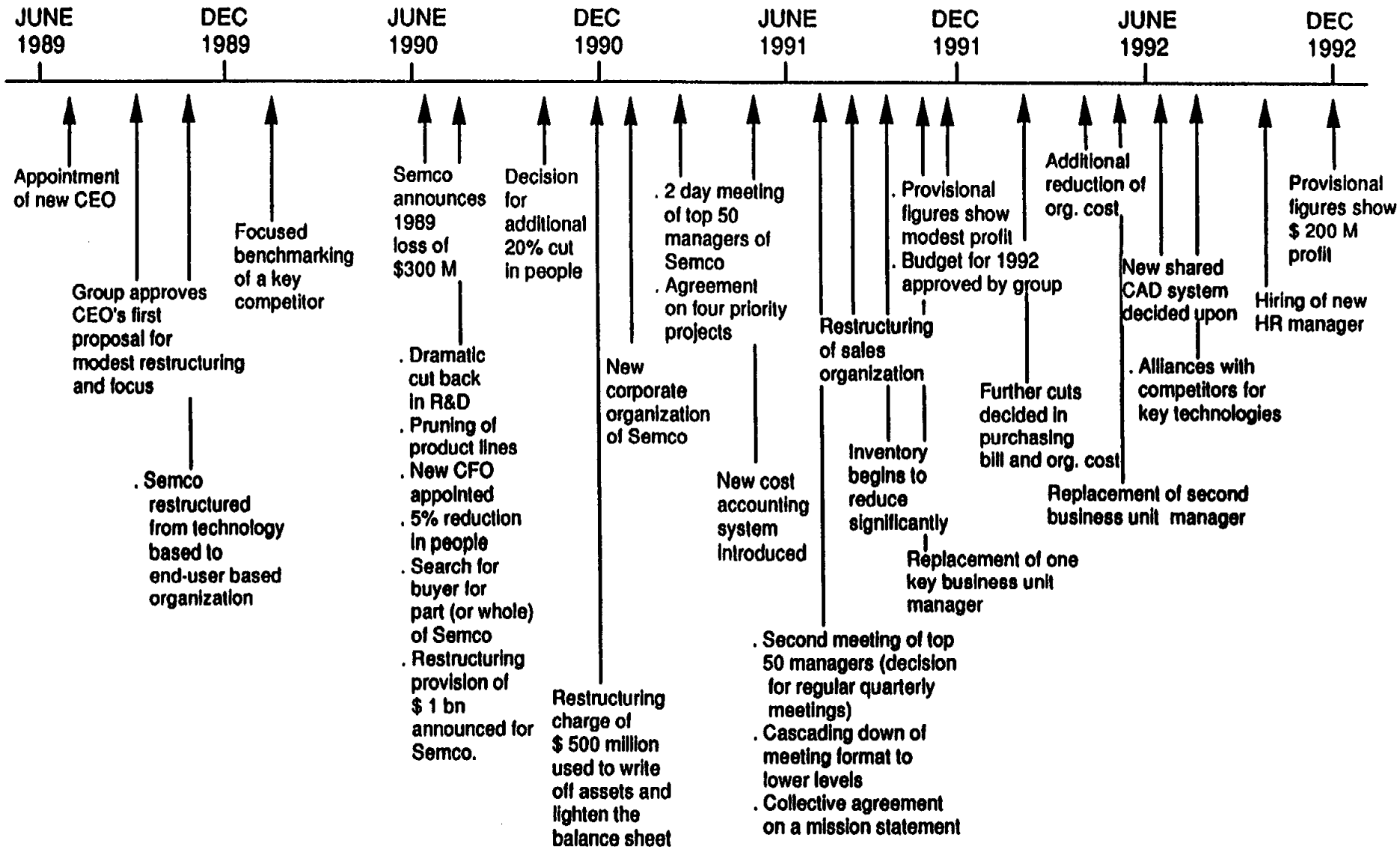

Figure 2
Key events and actions in the turnaround of Semco : 1989-1992

Table 1
Effects of actions on dimensions of context: Semco

KEY EVENTS/ ACTIONS	No. OF INTERVIEWEES (OUT OF 26) LINKING THE EVENT/ACTION TO DIMENSIONS OF CONTEXT			
	DISCIPLINE	STRETCH	TRUST	SUPPORT
1. Announcement and implementation of drastic cuts, particularly in no. of employees	14	3	2	4
2. Focused benchmarking of a key competitor	6	10	4	6
3. Introduction of a new accounting system	11	4	8	5
4. System of quarterly meetings of senior managers	12	9	9	8
5. New formal structure	-	3	4	6
6. Personal style of the CEO	8	6	14	6
Number of employees highlighting the dimension as a key element of the new context of Semco	18	12	16	11

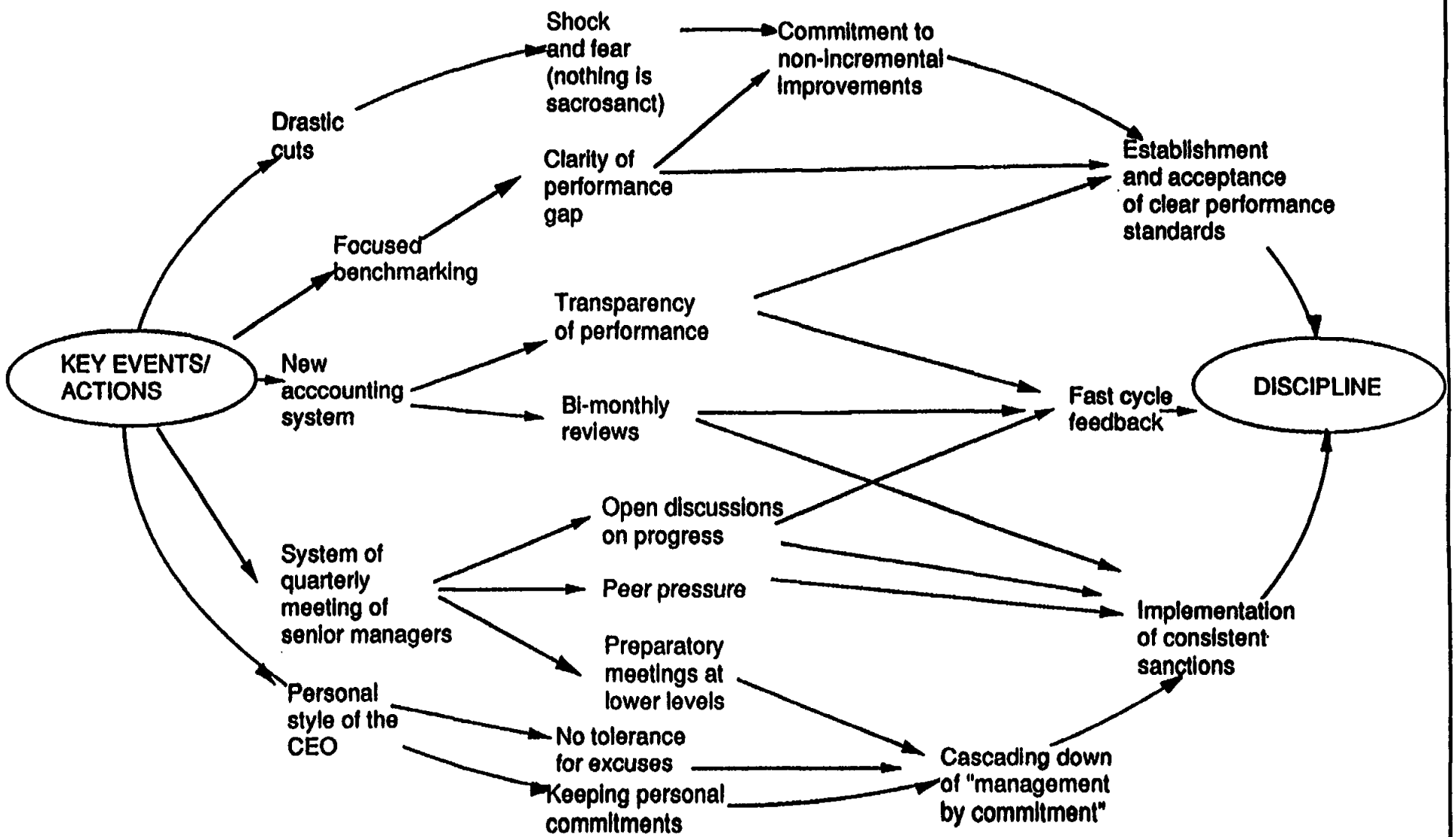

Figure 3
Emergence of discipline as a key element in the context of Semco

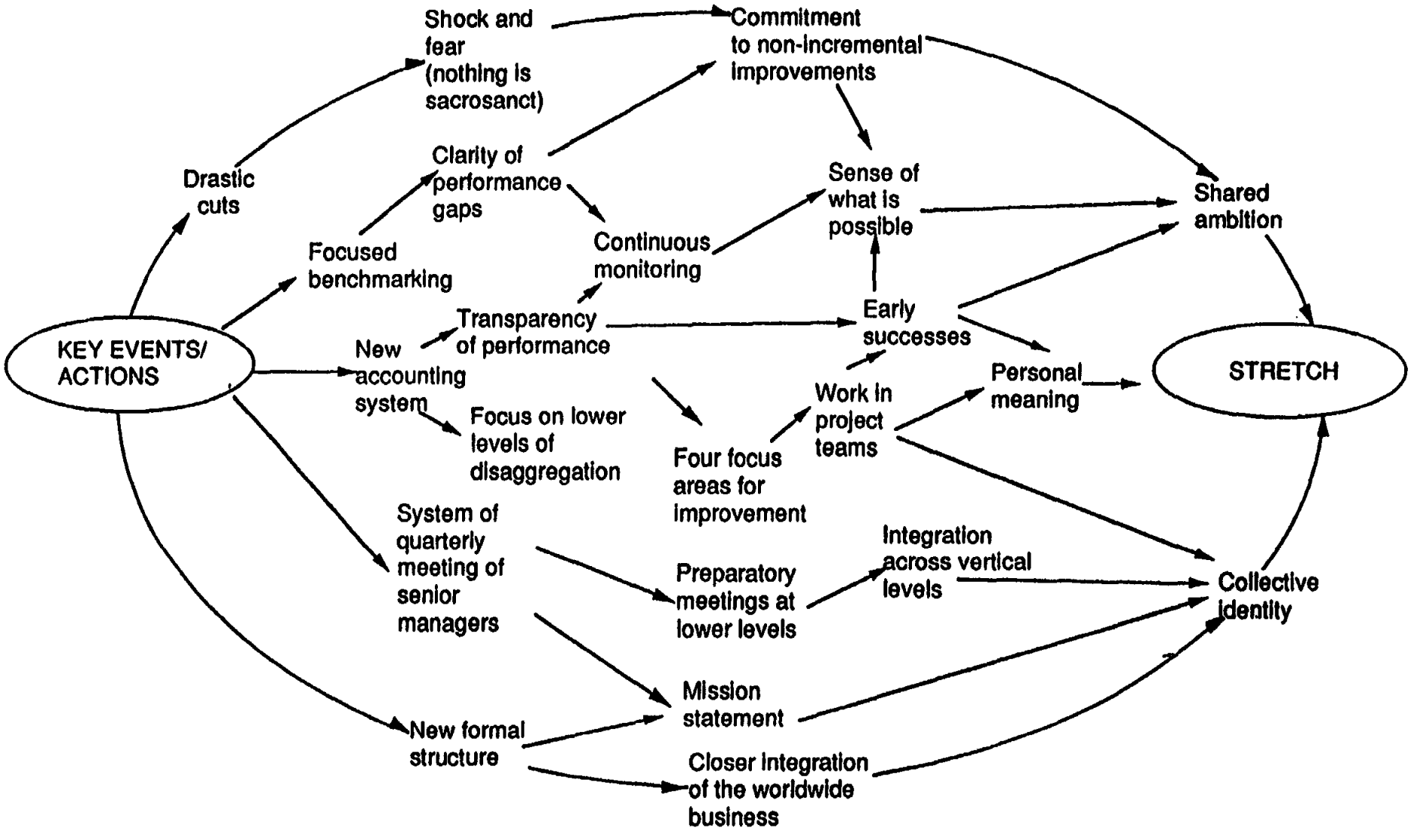

Figure 4
Emergence of Stretch as a key element of the context in Semco

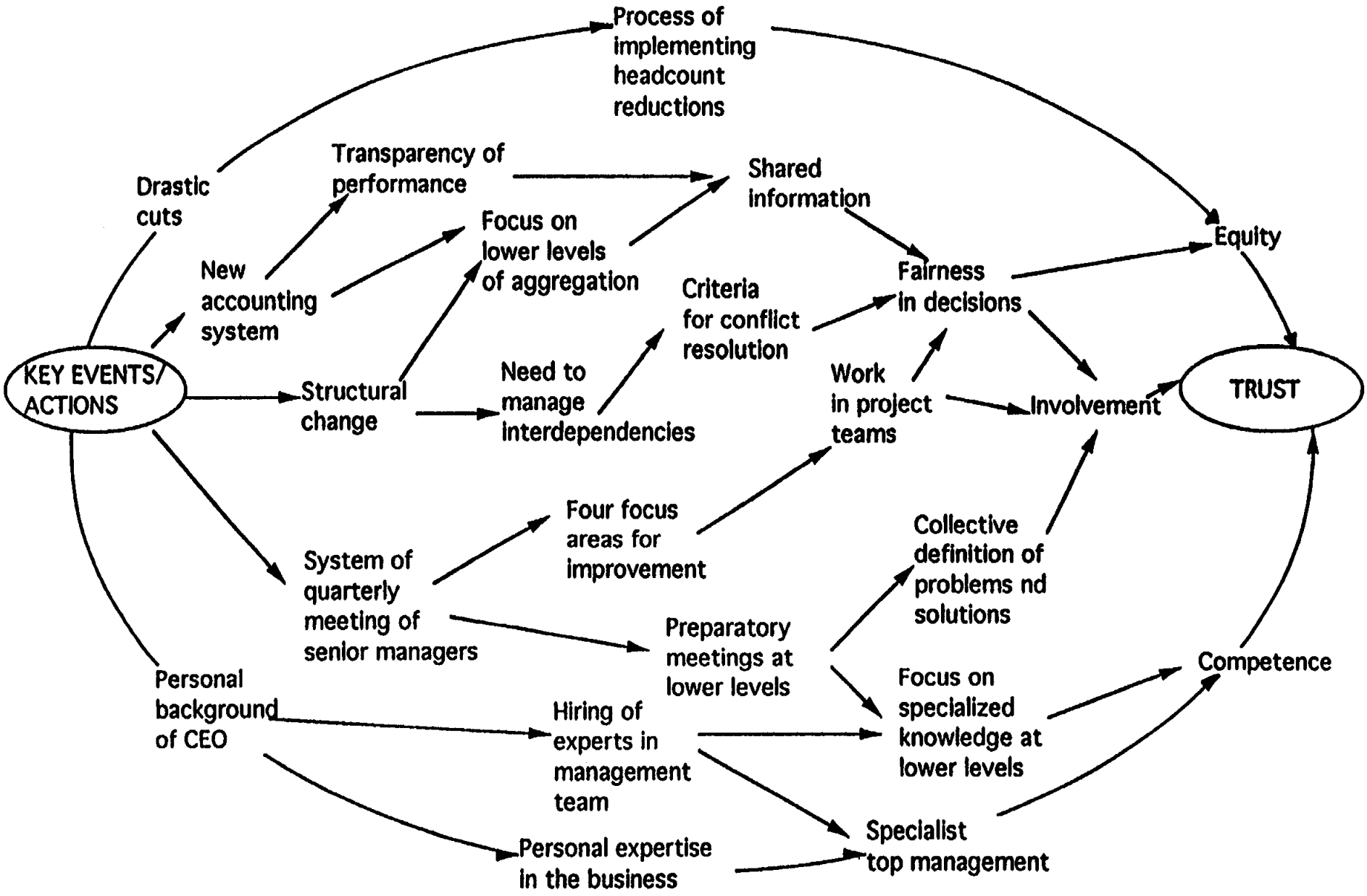

Figure 5

Emergence of trust as a key element in the context of Semco

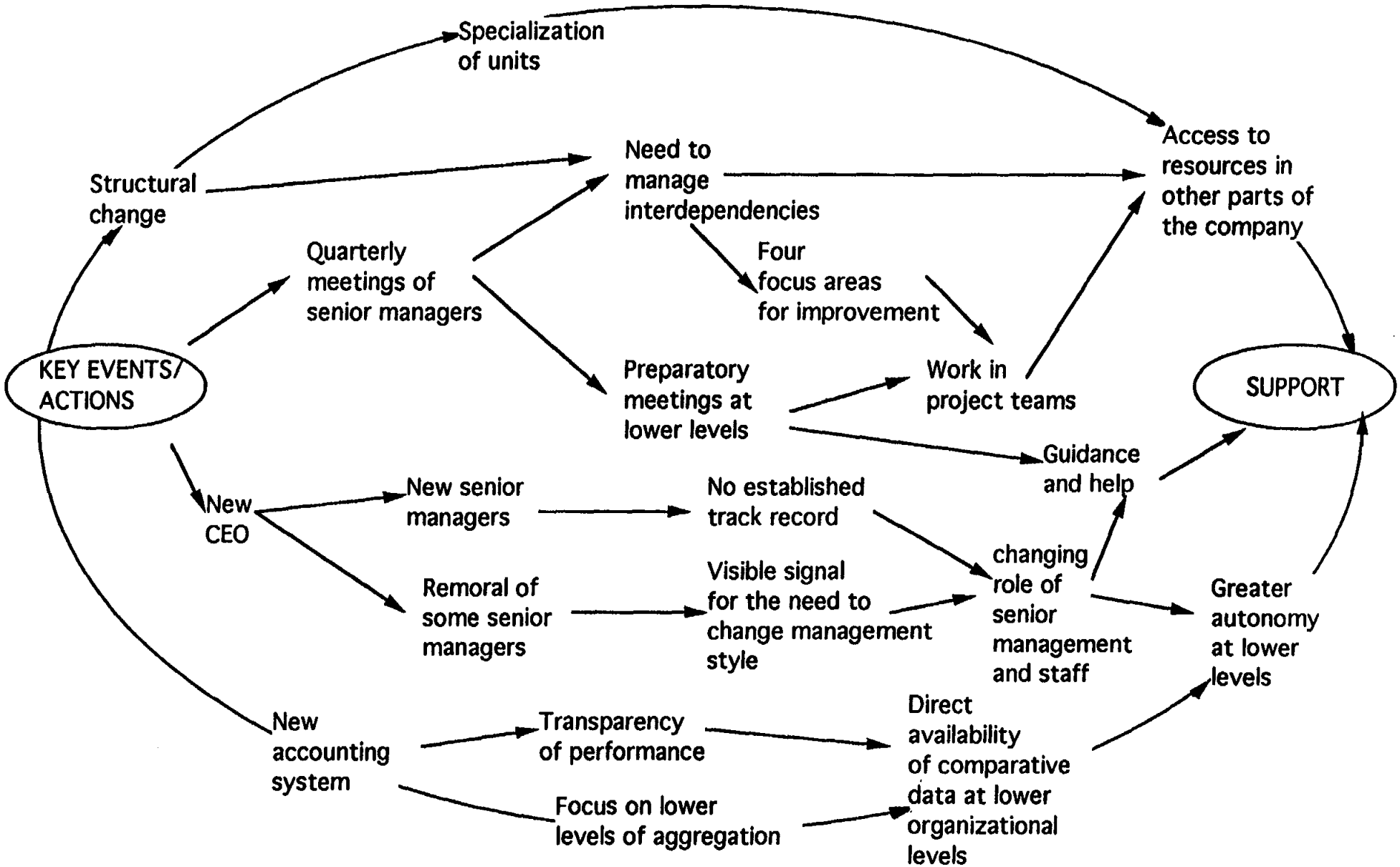

Figure 6
Emergence of support as a key element in the context of Semco

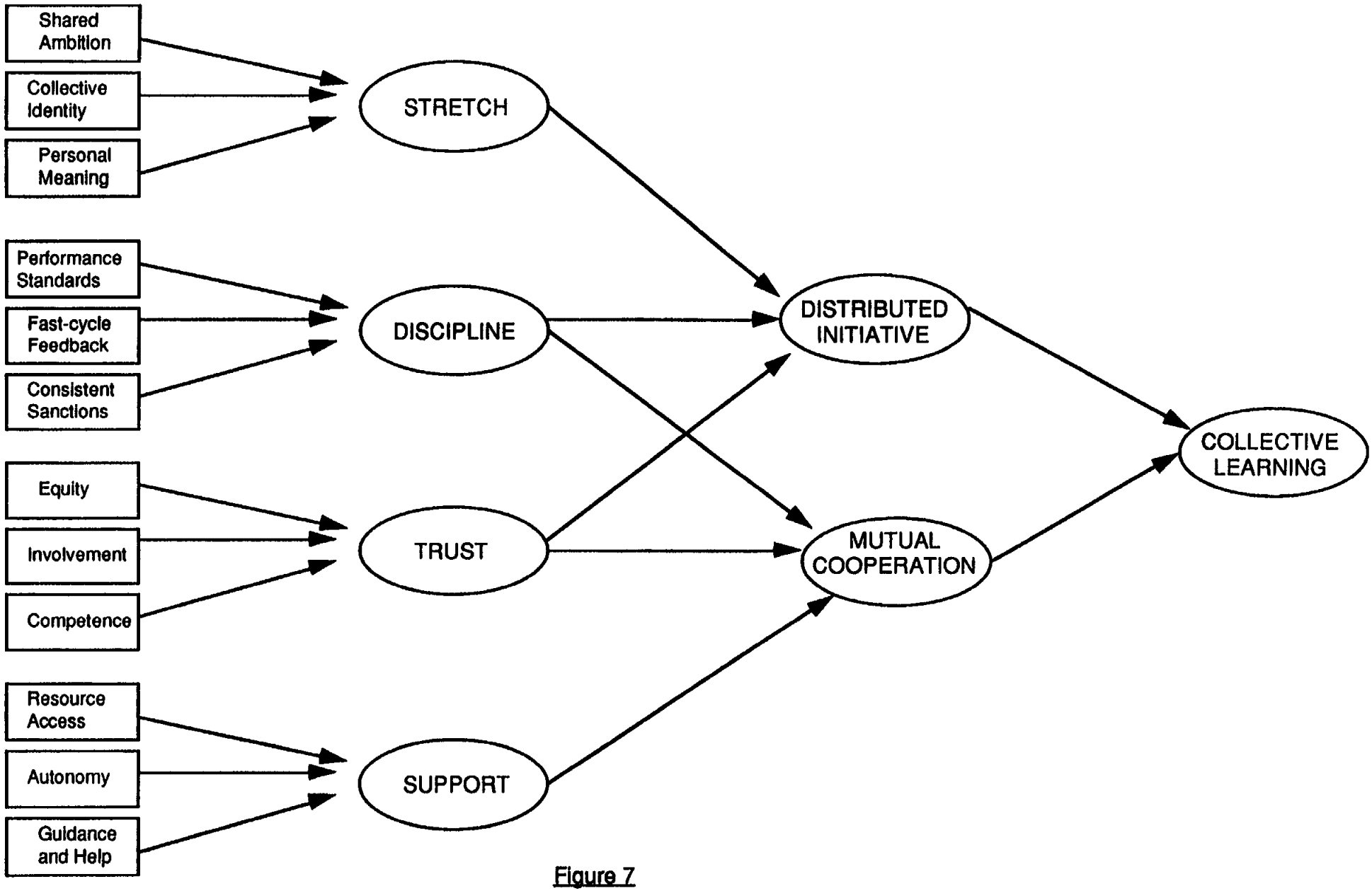

Figure 7
Quality of Management: A Framework

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