

Lehner, Johannes

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Johannes Lehner*

Strategy Implementation Tactics as Response to Organizational, Strategic, and Environmental Imperatives**

Based on previous literature in the fields of strategy implementation and leadership research tactics for strategy implementation are identified. Three categories proved empirically valid in this study: autocratic tactics, participative tactics and tactics which rely on the given culture of the organization. The paper is based on the assumption that implementation in general is dependent on environmental, strategic and organizational variables. In this sense implementation tactics can be interpreted as genuine organizational behaviour. Based on a discussion of associations of implementation tactics with these variables it is hypothesized that the perception of environmental threats will lead to more autocratic tactics, whereas the existence of a formulated strategy will rather lead to more participative tactics. No such relationships are predicted for cultural tactics. A questionnaire-based measure of implementation tactics is tested in a sample of 136 Upper-Austrian firms by referring to implementation projects or strategy related issues. For a sub-sample (n=60) a moderated regression analysis on implementation tactics with measures of organizational structure, the environment, the strategy, and the interaction between environment and strategy as independent variables was performed. It shows that the use of autocratic tactics is significantly explained by environmental variables whereas participative tactics are significantly explained by the existence of a formulated strategy within the organization. For Culture as an implementation tactic only the interaction between environmental and strategic variables was a significant predictor. Implications for future theory building and empirical research into organizational behaviour in the context of strategy formulation and strategy implementation are discussed.

Key words: **Strategy Implementation; Implementation Tactics, Organizational Centralization, Uncertainty, Equivocality**

* Prof. Dr. Johannes Lehner, Johannes Kepler Universität Linz, Institut für Unternehmensführung, Schloß Auhof, A – 4040 Linz, Austria, Phone ++43 732 2468 9127, Fax ++43 732 2468 8418. E-Mail: Johannes.lehner@jku.at.

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Many studies in the long tradition of organizational behaviour research could be qualified as general behavioural research, as long as they do not refer to idiosyncratic conditions within the organization. Rather than presenting new methodologies of research the aim of this paper is to seek new directions by explicitly linking behavioural inquiry to related fields in organizational research, in particular to organizational theory and to strategic management. This link is represented here through tactics of strategy implementation as behavioural patterns, which are dependent on environmental, organizational, and strategic conditions.

There is still little research on strategy implementation, compared to the bulk of literature on the formulation and decision parts of the strategic process. Strategy implementation involves multiple levels of analysis which hinders the development of closed frameworks and of coherent streams of research. Consequently, researchers have taken a large diversity of perspectives on implementation (Noble, 1999). It has mainly been researched in regard to the fit between strategy and structure (e.g. Galbraith/Kazanjian 1986; Hrebaniak/Joyce 1984), building on the seminal work of Chandler (1962). This has been supplemented through studies of environmental and organizational contingencies for strategies (Damanpour 1996). A different research stream addresses implementation as a variant of leadership processes on a conceptual level (Bourgeois/Brodwin 1984) or empirically (e.g. Nutt 1986). The latter type of studies lacks explicit references to strategy content, with the exception of an empirical study using multiple case studies by Walderssee and Sheather (1996). Some studies link strategy type (Hambrick/Mason 1984; Miller/Toulouse 1986; Miller/Kets de Vries/Toulouse 1982; Szilagy/Schweiger 1984) or implementation (Gupta/Govindarajan 1984; Govindarajan 1989; Nutt 1995) to managerial characteristics. However, there is a growing literature on the resource-based view (Wernerfelt 1989; Barney 1991) or competence-based view (Gorman/Thomas 1997) of the firm, emphasizing the importance of organizational processes and capabilities for sustained competitive advantage. Barney and Zajac (1994), for example, called for research into competitive organizational behaviour, which should link behavioural processes within organizations to the type of strategy or to competitive behaviour of the firm. Other authors criticize traditional distinctions between strategy formulation and implementation and rather see it as interwoven aspects of the strategy process (Chakravarthy/Doz 1992; Floyd/Lane 2000). However, despite such early calls for research into behavioural aspects of strategy making, progress in this area is still rather limited.

This paper tries to contribute in this regard by conceptualizing strategy implementation as the locus where behaviour surfaces as truly organizational and competitive, and by referring to organizational and strategic conditions. Because of the mentioned paucity of studies on strategy implementation, such a direction of research is new, even if it calls for rather traditional methods. There is some research on behavioural processes in the context of strategic management (Schreyögg 1984; Mitroff 1983; Shrivastava/Nachman 1989). These studies identify a limited set of behavioural patterns which can be observed in all contexts of the strategy process. In the following first section I will distinguish five patterns, sometimes called models or tactics for implementation, which will be reduced to three empirically distinguishable tactics.

As introduced already above, behavioural patterns shall be qualified here as organizational behaviour, if they can be shown to be dependent on strategic and organizational conditions. For this, I will describe in the second section strategy types that seem to be most descriptive in regard to implementation tactics. In the third section possible environmental and organizational variables will be postulated to influence the use of implementation tactics. This will be the basis for formulating hypotheses about the link between strategy type, organizational and environmental variables and implementation tactics, which will be tested in the empirical part of the paper.

Implementation tactics

The first attempt to explicitly link behavioural patterns to the context of strategic management has been the distinction of implementation tactics through Bourgeois and Brodwin (1984). However, these authors neither tried to connect to other conceptualizations of organizational behaviour, especially in regard to organizational leadership, nor did this framework lead to any empirical studies. The first gap shall be closed in this section. The tactics identified by Bourgeois and Brodwin (1984) will be the basis for this, because they cover the range of implementation tactics, identified in all other previous studies. To describe relevant tactics, however, I will not only refer to studies of implementation, but to all parts of the strategic process which includes strategy formulation as well. Therefore, these tactics will be described in regard to their underlying paradigm of strategy analyses, in regard to the used leadership behaviours, and in regard to dominant criteria of efficiency.

Command

Many views on strategic planning are based on the assumption of a rational actor who is able to implement a once chosen strategy through command (Bourgeois/ Brodwin 1984) or edict (Nutt 1986). Command as an implementation tactic parallels rational modes of organizational decision making in general (e.g. Allison 1971) and for strategy formulation in particular (Bailey/Johnson 1995; Lyles/Thomas 1988). A similar description is used by Godard (1999), who examined reforms in regard to the degree they have been implemented methodologically. This includes especially the use of planned step-by-step processes and extensive support from top-management. Pure methodological tactics are equivalent to command because both avoid participation through subordinates. Methodological tactics only substitute the autocratic decision maker through an impersonal or bureaucratic process (Türk 1995).

To implement by command some source of strong power is needed, which is either provided through a machine-like bureaucratic hierarchy, through exclusive knowledge, or through control over boundaries (French/Raven 1959). In the latter case, managers try to get compliance by referring to externally determined rules of the market or the law. The use of command is likely if managers have strong personal interest in a chosen course of action, if it seems to be of utmost importance for the organization, and if alternatives to the course are not available or perceived to be of significant lower value (Nutt 1989b). Command is dominant in two leadership patterns identified by Shrivastava and Nachman (1989) in regard to strategy formulation. The

strategy process is of entrepreneurial nature if the strategy is primarily formed by one person, which is the case most frequently in small organizations with a simple structure. In larger organizations it becomes bureaucratic, where the focus is on internal processes and internal efficiency. The dominant aim in all of these cases and in all stages of the strategic process is to react to threats. The more threats are enacted or the higher the competitive pressures the more methodological and planned strategic implementation processes will be utilized (Godard 1999).

Politics / Change Model

Command and implementation through edict assume a split of the organization into thinkers and doers (Bourgeois/Brodwin 1984). This is associated with a strong emphasis on strategy formulation compared to implementation, with the latter viewed as a subordinate problem. In contrast, the relationship between strategy and implementation is reversed when the organization is construed as a political system (e.g. March 1962). Bourgeois and Brodwin (1984) stress the need for political skills of managers in the implementation model which they label "change model". I use the term "politics", because it seems more descriptive for its core ingredients. The underlying principles of the change model and of political modes of organizational decision making are the same. In such a view, either strategies emerge from chosen courses (Mintzberg 1973) or strategies are evaluated primarily based on the likelihood of implementation success. Implementation in the sense of politics or the change model is characterized through isolated interventions, by changing single aspects of planning, information systems or incentive systems. Most efficient in this regard are changes of performance standards which are used for evaluation, because they encourage desired behaviours. For this, especially in political contexts, implementation and evaluation are strongly linked (Pressman/Wildavsky 1973). Similarly, Maitlis and Lawrence (2003) interpret strategic processes as sequences of political and discursive stages, where the latter includes the definition of evaluation standards. However, these authors use the concept of "politics" in a sense, which includes a wider set of behaviours compared to its traditional use as an implementation tactic (similarly Buchanan/Badham 1999). Consequently, they derive propositions about the link between the skills of agents in regard to political behaviour and strategic success or failure.

Organizational members play different roles in command compared to politics. Because subordinate members of the organization, represented through opinions, interests, and goals, have a much stronger voice in politics than in command, a political tactic may be applied in a broader set of organizational or environmental configurations. Still, there are some conditions which increase the likelihood of political behaviour for implementation. Especially two conditions should be present simultaneously. The first condition is the availability of at least two alternatives, which are not significantly different in regard to their overall instrumentality for the strategic goals (equifinality). The second condition is the utmost importance of acceptance of a selected alternative. If, for example, a certain goal is not acceptable for powerful groups, an alternative will be chosen which leads to an acceptable, but different goal, and which attains the original goal as a side-effect (Yanow 1993). Instead of searching for the optimal alternative, a course is chosen that fulfills all criteria to a satisfying (or *satisfizing*)

degree and for which the acceptance by all relevant stakeholders is likely. To increase the likelihood of acceptance some form of participation will be observed before and during formulation or implementation. Frequently this will result in the forming of coalitions, pacts (Chakravarthy/Gargiulo 1998), and in informal cooptation (Selznick 1966). However, under politics, participation is limited to providing information for decision makers or to eliminate sources of opposition (Selznick 1966). It does not include an influence on the outcome of the decision beyond the selection of information.

Collaboration

More than in politics, participation plays a key role for collaboration. The difference between participation in politics and in collaboration lies again in the role of organizational members. Whereas both command and politics assume a differentiation within the organization between thinking members and acting members, this distinction is relaxed in the collaborative model (Bourgeois/Brodwin 1984). This provides participation with a different meaning. Participation under command or politics is autocratic in the sense that courses are not chosen depending on the quality of a course as it is perceived by subordinates. Instead, the only motivation for participation is acceptance. With collaboration, both acceptance and quality are focused, as it is suggested in the model of Vroom and Yetton (1973).

Implementation in the sense of collaboration involves the whole organization. Therefore it is similar to approaches that are discussed by Tichy (1983) for strategic change or by Beer and Eisenstat (2000; 2004) for strategy implementation. There, frequently laboratories, retreats and seminars with external consultants are used, because of their potential to facilitate organic processes and change (Greiner/Bhambri 1989). Further, task forces are created, without lines of authority, as an addition to the formal organizational structure. The goal is to arrive at a consensual implementation. Such processes have been found to lead to the fulfillment of objectives which are set by the managers with a high likelihood. But they do not necessarily meet economic criteria (Godard 1996).

Market

Both for formulation and for implementation of strategies, the idea of emergent (e.g. Mintzberg 1973; Quinn 1980) or growing (labeled "crescive" by Bourgeois and Brodwin 1984) courses of action has attracted researchers and practitioners. In such a view the organization is seen as a market of ideas, of possible strategies, or of alternative implementation courses of which eventually one particular alternative is selected. The organized anarchy (Cohen/March/Olson 1972) as a paradigm for strategy analysis follows similar principles. Still older is the idea of Vilfredo Pareto (1897, cited in Vohra 1984) to create a procedure for planning which simulates market forces. Instead of seeking acceptance of a previous chosen course, as it is the case with politics, with collaboration, and with a culture oriented tactic (see below), the market waits for emerging alternatives for implementation. Eventually a particular alternative is selected out.

By referring to principal-agent theory, Bourgeois and Brodwin (1984) consider this pattern (the *crescive* model in their terminology) as most successful. A second-

best alternative chosen by the agent is more likely to be implemented successfully than a first-best solution selected by the principal, for which the risk of effort avoidance is higher. This pattern is seen to be similar to incremental approaches to strategy making. Therefore, it seems to overcome problems with planning in an uncertain world. If, however, there are no higher-level criteria for evaluating emerging alternatives, then the danger of diverging courses which do not result into a coherent pattern of strategic behaviour is high. Therefore it seems that the market of ideas has to be controlled through leadership and by comprehensively formulated strategies which allow the selection of a cohesive pattern of implementation courses.

Culture

Beyond the continuum between autocratic and participative modes of implementation, many authors identify a behavioural pattern which might be summarized under the label culture. Still, participation of organizational members is important for a cultural model of implementation. However, here it is only one possibility among others to convince members that a chosen course is the best alternative for them and for the whole organization. This approach either builds on an existing culture which supports a strategy and its implementation within the whole organization or it tries to change the culture in order to receive the desired support. In the latter case a core part of strategy implementation is seen in the creation of an organizational culture which fits the strategy (Denison 1990). As part of the culture, shared values may significantly determine the success of implementation efforts (Badovick/Beatty 1987). For this it is important that these values are compatible with the intentions of the strategy. A study of Fox-Wolfgramm, Boal and Hunt (1998) describes how a given culture may hinder implementation of change. In particular, the identity of a defender bank and its image made it impossible to implement the required change. Similarly, Fiol and O'Connor (2002) show that "inside-out approaches", where members of a culture define the problems to be solved themselves, tend to lack initiative and therefore are unable to drive significant departures from existing identity perceptions. In contrast, identity and image of a prospector bank in the Fox-Wolfgramm et al. (1998) study were consistent with the implementation need.

Somewhat different is the idea that any culture can be systematically used to implement a strategy. In this sense, the label "culture" as an implementation tactic subsumes all behaviours which try to create or use a given culture for implementation. Such behaviours are internal marketing for implementation, persuasion through the reference to higher values, to general ideas, to norms, or to personal friendship and loyalty (Falbe/Yukl 1992). This has much in common with transformational leadership (Bass 1985). Culturally oriented tactics are frequently used in conjunction with other tactics. An example is the description of a "culturally sensitive" approach through Bate, Kahn and Pye (2000), where culture in the sense used here is only used in the first stage of the process ("cultural framing"), whereas the remaining process utilizes mainly collaborative implementation tactics. Despite the difference between viewing the culture as a condition versus as a tactic, these two views converge, because the *use* of culture as an implementation tactic almost always drifts into a *change* of culture as part of a strategic change process.

Culturally oriented tactics have been criticized because of their totalitarian flavour (Bourgeois/Brodwin 1984), which means that much effort is spent on persuading all involved parties to believe in the effectiveness of a course of action. In this respect culture resembles persuasion as an implementation tactic which has been identified by Nutt (1986) as the most frequent, although not the most successful tactic. For persuasion, experts take a major role. They provide arguments for a course and induce an impression of rationality. Both persuasion through experts and a strong culture can harm organizational effectiveness if either the pressure towards a homogenous organizational culture or rationality beliefs discourage members which are important to the organization but that do not fit into the culture or which follow a different paradigm.

The description of implementation tactics in this section shows that the first two tactics, that is command and politics/change are both rather autocratic. They can be subsumed under the label “tell/sell” (a term borrowed from Locke/Latham 1990), because in both cases participation has the limited purpose of providing information and of increasing the chance of acceptance for a decision which was made solely by either an autocratic decision maker or by a rational methodology. In contrast, both collaboration and the market as implementation tactics utilize participation to a high degree in a way which gives subordinate groups a strong voice and the possibility to influence the selection of courses of action. Therefore, the five implementation tactics described here can be viewed as first order factors and autocratic versus participation as second order factors for implementation tactics. This distinction is fruitful because many of the variables proposed in the next section to influence the use of implementation tactics will refer to these second order factors rather than to first order factors. Further, the continuum between autocratic or directive versus participative behaviour is well established in leadership research (e.g. Heller/Yukl 1969). Only culture as an implementation tactic remains as a single category, which forms an independent dimension by being close to transformational leadership (Bass 1985), on the one hand, and, on the other hand, by possibly incorporating aspects of both autocratic and participative tactics, dependent on the organization. Table 1 summarizes the above characterization of implementation tactics.

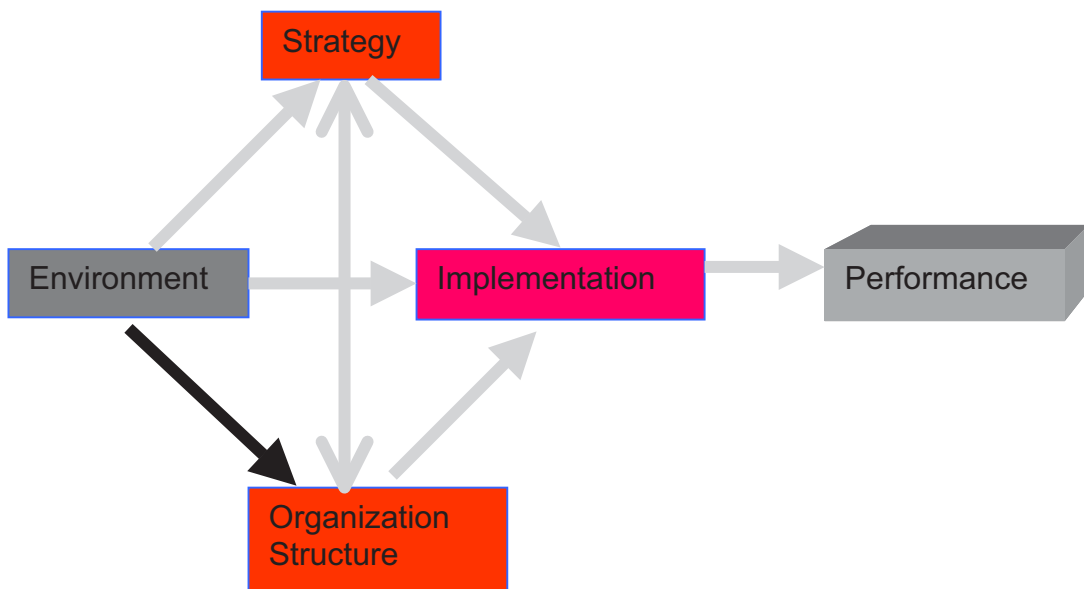
Table 1: Implementation Tactics

	Autocratic Tactics, “Tell & Sell”		Culture	Participative Tactics	
	Command	Change/ Politics		Collaboration	Crescive/ Market
Description, underlying paradigms	Edict, rational actor	Intervention, power games, secure control	Conviction, process orientation	Participation, organic process	Pareto-process, organized anarchy
Basis of acceptance	Pressure, legitimate power	Coalition	Reference to values, norms, friendship, loyalty, history	Consultation exchange, bargaining	Ownership by agent, pilot projects

The context of implementation tactics

Building on the framework of Keats and Hitt (1988), I view strategy implementation in general and the choice of implementation tactics in particular as a consequence of the perception of the environment, of the organizational context and of the chosen strategy (see Figure 1). In this section I will present arguments that autocratic versus participative tactics, and the use of culture as a tactic are dependent on the organizational context, and either are responses to environmental perceptions or to strategic imperatives. For this, I describe in the following a minimum set of organizational, environmental and strategic context variables.

Figure 1: The context of strategy implementation (modified from Keats/Hitt, 1988)



Organizational context

Despite the much discussed shortcomings of the classical contingency frameworks and the configuration approaches to organizational design (Mintzberg 1979) they allow to conclude that managerial behaviour in general and the choice of implementation tactics is dependent on the structural conditions within the organization. First, almost all organizational characteristics are to some extent influenced by the size of the organization, especially the degree of centralization and the degree of formalization (e.g. Damanpour 1992; Pugh/Hickson 1976). Usually formalization is seen as a substitute for leadership (Gutenberg 1958; Kerr/Jermier 1978). However, formalization is always restricted to routine tasks. Strategy implementation reaches beyond routine, because, by definition, existing rules and program, to which formalization is referring to, have to be changed. Therefore formalization will not reduce the need to apply implementation tactics. Rather, their application may lead to new formalized rules, which subsequently may substitute leadership. Similarly, any type of division of

labor within the organization and a high degree of specialization will increase the complexity of the task of implementation. In organizations with very specialized functional units implementation projects have to cross boundaries between existing departments and between groups. Therefore, any form of specialization and of division of labor will increase the need to coordinate implementation efforts.

This need will surface in various forms. An implementation project in a large and complex organization will require much use of standard tools of project management, will frequently utilize the help of external consultants, and will involve a higher absolute number of organizational employees than in a simple structure. Although each of these conditions may be used in association with each single implementation tactic, the mere quantity and variety of conditions make it rather unlikely that a single tactic will be used. There are several reasons for the use of a combination of different implementation tactics under the conditions described here. First, the standard model of project management (e.g. Project Management Institute's 1996, PMBOK) contains methods which differ in regard to the implementation tactic they support. For example, rational aspects and formalization tools suggest autocratic tactics, whereas tools for team work support participative tactics. Second, external consultants differ in regard to their background and their favourite management styles. Therefore the emphasis of one or the other implementation tactic is largely dependent on the choice of consultants. Third, the higher the number of organizational members involved in the process, the higher the likelihood that different tactics will be used, because with more organizational members the diversity of preferences for implementation tactics will increase.

In summary, although organizational size will be the most important correlate, it is only via the need for higher organizational complexity that size will be followed by an increased use of a variety of implementation tactics. We expect more use of all implementation tactics with increasing division of labour or decreasing centralization of tasks. More generally, any increase of organizational complexity will increase the need to utilize implementation tactics for a non-routine task such as strategy implementation.

- Hypothesis 1: The use of all implementation tactics is positively associated with organizational complexity.

Environment and Strategy Formulation

The organization is not the sole source of complexity. Environmental conditions, such as uncertainty, dynamism, hostility, the number of relevant components in the environment, and the interrelationships between these components, all increase the perceived complexity or the perceived threat for management. Here, I will not go into the details of potential reactions to such conditions in terms of organizational adaptation. Rather, I will focus on the role of strategy formulation and strategy implementation for dealing with environmental threats. Strategy formulation and strategy content as a result of the formulation process is part of the context for implementation because there are basically two possibilities, which produce fundamentally different imperatives for implementation: Either a strategy is explicitly formulated or it emerges.

First I will deal with the latter case, which can be found in organizations with an incremental mode of adaptation (Quinn 1980, Mintzberg 1973) or in reactor firms (Miles/Snow 1978). In such organizations managers responsible for strategic projects

will have to respond to environmental conditions directly. They will choose implementation tactics according to their perception of the environment. This has a cognitive and a motivational aspect, both for management and for all other members which are involved in the implementation process. The cognitive aspect is reflected through the problems which are perceived to be dominant. Both managers in charge of the strategic process as well as involved subordinates will primarily draw their attention to the environment if it is perceived as highly uncertain or highly dynamic. They will enact the controlling of environmental circumstances as instrumental for their personal motives. Any such attempt will be accepted. Because implementing managers will also enact this instrumentality, they will see little need to involve organizational members in their decisions. Rather they will use implementation tactics to increase their control over the flow of events. For this, autocratic tactics, such as command and politics, will be more appropriate than participative tactics and cultural tactics. First, autocratic tactics usually work faster than participative or cultural tactics, thereby allowing quick reactions to new situations (Vroom/Yetton 1979). Second, autocratic tactics guarantee that those decisions are implemented which the manager in charge perceives to be required. By definition, no compromises are necessary. Although the latter holds always, this advantage will be weighted higher in situations with pressing demands from the environment, than in situations where internal requirements of the organization are dominant.

The motivational aspect of autocratic tactics refers to the need for reducing uncertainty on the side of subordinates. It has been argued that conditions of environmental uncertainty will increase the need for any type of leadership (House/Spangler/Woycke 1991) and that the interaction between different forms of leadership with environmental uncertainty contributes significantly to organizational performance (Waldman/Ramirez/House 2001). All of these studies, by inquiring transactional and charismatic forms of leadership, refer to rather autocratic forms of leadership. Autocratic tactics have instrumentality for this motivational aspect. These arguments lead to the following hypothesis.

- Hypothesis 2: (a) Autocratic tactics will be used dependent on the existence of the environmental conditions of uncertainty and equivocality.

Basically the reversed argumentation applies to participative forms of leadership. Those can not serve the need to reduce uncertainty, because under participation subordinate would still have to deal with conditions of uncertainty. Especially uncertain and equivocal conditions likely lead to long discussions when participative or cultural tactics are used, because interpretations of these conditions will vary largely. Therefore the outcome of participative or culturally oriented processes is hardly predictable under such circumstances. Consequently, implementing managers will avoid such tactics.

Still, participation, especially as it is represented through intensive group discussions, may be functional to reduce uncertainty and equivocality. But the considerations discussed for the use of autocratic tactics may keep implementing managers away from participative tactics. Because of the existence of these two opposing forces, no explanatory power of environmental conditions for participative tactics can be expected.

- Hypothesis 2 (b) Participative tactics and cultural tactics will not be explained through environmental conditions.

Implementation and Strategy Content

Having described how environmental conditions affect the use of implementation tactics, I will turn now to the impact of strategy content in this regard. Generally, the formulation of a strategy may be viewed as a reaction to environmental conditions through a dominant coalition (Huff/Huff/Thomas 1992; Miles/Snow 1978). It has been shown that perceived environmental hostility increases the degree of analytically formulated strategies (Miller/Friesen 1983). By reacting to environmental threats or opportunities with the formulation of a strategy top management sets a new context for subsequent managerial actions such as strategy implementation. As a consequence, for managers responsible for strategy implementation the formulated strategy is more relevant as a guideline than environmental conditions.

To examine the role of strategy content as a context for strategy implementation, we will concentrate on the continuum between efficiency oriented strategies on the one hand, comprising defender strategies (Miles and Snow 1978) or cost leadership (Porter 1980), and innovation oriented strategies on the other hand, comprising prospector strategies, entrepreneurial strategies, quality strategies or other forms of growth strategies. There is some evidence (Waldersee/Sheather 1996) that autocratic tactics are preferred to implement efficiency oriented strategies. If a defender strategy is chosen and if uncertainty is high, command will most likely be used to reduce this uncertainty. Waldersee and Sheather (1996) found a significantly stronger emphasis of command and control in firms with defending strategies compared to firms with entrepreneurial strategies. This view is partially supported through Schneider (1997), who also finds increased autocratic (“controlling”) approaches in a defender bank, but in a rather certain environment, compared to a prospector bank in a more uncertain or dynamic environment.

Despite the found association between efficiency oriented strategies and autocratic tactics, strategy implementation always tries to move the organization beyond the status quo (Huff et al. 1992). For this, autocratic tactics might be dysfunctional, because significant change requires acceptance from various interest groups. For example, an important instrument of politics is the building of coalitions among groups of stakeholders. But coalitions hold only as long as the stakes stay constant. Any explicitly formulated strategy, on the other hand, poses a possible threat to existing stakes within the organization by changing priorities of projects, or by altering the relative importance of departments (Guth/MacMillan 1986; Collier/Fishwick/Floyd 2004). Therefore, when a formulated strategy exists, participation will be used most likely whenever top management or middle management tries to change the organization to some extent. This is the case for all kinds of innovation strategies or for prospector strategies, because innovation needs free information flow, high intrinsic motivation, high acceptance of chosen courses, emphasis on communication, participation in decision making, and a development of human resources for innovation. Joint decision making and pilot studies have been found to be associated with prospective or entrepreneurial strategies (Waldersee/Sheather 1996). But even if the goal is to reduce costs, participative approaches will be used. First, if the need to reduce costs can not be legitimized through environmental threats, but has to be derived from a formulated strategy, then management will have to convince organizational members of its neces-

sity. Whereas political tactics may play some role for this, a high degree of participation and, possibly, a shared vision (Collier et al. 2004) will be necessary for the acceptance of strategies and their associated implementation measures. Also, with participation it is more likely to identify the best options to reduce costs without threatening core functions within the firm and without sacrificing too much of the quality of its products and services. Therefore we assume that any formulated strategy will lead to a use of participative implementation tactics.

- Hypothesis 3 (a) Participative tactics will be used to the extent that formulated strategies exist.

Neither environmental conditions, nor the strategy content allow a clear prediction of a preference for a cultural mode of implementation. Rather we assume that culture will be used deliberately or as a supplement to other tactics if those tactics appear not to be sufficient to react to environmental conditions or to the formulated strategy. For example, the simultaneous perception of high environmental threats and the existence of a formulated strategy could lead to the use of culture for implementation. Because of the lack of a theoretical foundation for this, no explicit hypothesis is formulated in this case.

Similarly, for the use of autocratic tactics no association with formulated strategies can be expected. On the one hand, because of the above arguments, participative tactics will be favoured with the presence of formulated strategies. On the other hand, because of the fear of long delays through discussions, or the prospect of potential conflicts, managers may still apply autocratic tactics to some extent.

- Hypothesis 3 (b) Autocratic and cultural tactics will not be used dependent on the existence of formulated strategies.

Method

Previous empirical research on implementation tactics used multiple case study designs with cases provided through interviews of managers. Subsequently, these cases have been classified into implementation tactics (Nutt 1986, 1987, 1989b, 1995). Waldersee and Sheather (1996), who also performed a multiple case study design, rated the use of seven leadership styles proposed by Mitroff (1983) on Likert scales. The present study is the first field study into the use of implementation tactics. In particular, we examined behaviour in actual implementation projects which were going on at the time of the study. The study was cross-sectional by including a broad range of organizations. Given the lack of previous comparable studies, no standardized measurement instruments have been available for implementation tactics and it was necessary to develop a questionnaire instrument to represent the five implementation tactics.

Sample and Field Procedures

Data are based on questionnaires to executives in 135 firms of the Upper Austrian Machine and Engineering Industry, Banking and the Food Industry. This heterogeneous set of industries has been chosen to produce a range of implementation projects as wide as possible. Data have been collected as part of a larger empirical project through interviews conducted by a research assistant during a four-month period in 1997 and 1998. As part of the interviews respondents answered the questionnaire

items for this study. The interviews followed the following sequence: At the start of the interview a single project or issue was identified which fulfilled the following criteria: To be of significant importance for the organization as a whole and to be non-routine. Through this it should be ensured that the project was part of a strategy implementation effort, without directly asking questions in regard to the strategy. The majority of implementation projects identified through this procedure were related to the implementation of information technology (IT; 20%), followed by reorganization projects or process improvements (16%), product developments (11%), direct investment in foreign countries (8%), and expansion of existing plants (6%). After this identification step a questionnaire has been answered by the same executive with the scales for implementation tactics. Further questionnaire items contained the measures for organizational structure and environmental variables.

To minimize common source bias, in addition to the first interview a second executive at the same or a higher hierarchical level has been given a questionnaire with open ended questions in regard to the strategy of the firm. Questions have been coded by the author and answers were grouped into the strategy categories for this paper (see below for details). The final sample for the test of hypotheses consists of those firms ($n=60$) in which we were able to conduct both interviews. Validation of measures is based on a larger sample of 135 firms, for which the first interview has been conducted.

Measures

Organizational complexity is measured through items for standardization ($\alpha=.89$) and formalization ($\alpha=.67$) (Pugh/Hickson 1976). For environmental uncertainty two items from Miller and Toulouse (1986) have been translated into German. In addition to uncertainty, which yielded a rather low reliability ($\alpha=.67$), a three-item measure for dynamism ($\alpha=.62$) and four items measuring equivocal demands from the environment (equivocality, $\alpha=.81$) have been constructed. All items are listed in the Appendix. As a control variable the size of the organization in terms of number of employees has been assessed also. The literature on strategic management presents many different conceptualizations of strategy content or formulated strategies. Instead of measuring the existence of formulated strategies by looking on documents containing explicit formulations of strategy, we chose to classify the contents of competitive strategy. This was done by the author, based on the information given by the executive in the questionnaire. A colleague of the author did this classification for a random subset of 30 firms, which resulted in the same classification in all of the cases. For classification purposes, the framework of Miles and Snow (1978) proved sufficient, which distinguishes Defender, Prospector (Analyzer as a combination has not been identified) and Reactor firms. Two dummy variables have been created for Defender and Prospector strategy. According to Miles and Snow the Reactor type is treated as the residual category, signifying the absence of a formulated strategy. For the purpose of test of hypotheses only the latter is of interest, which is either the presence of a strategy (Defender or Prospector) or its absence (Reactor). However, for additional analysis the distinction between Defender and Prospector strategies has also been used.

Although its frequent citation in the literature no measures have been available for implementation tactics. For example Prasa (1999), who uses Bourgeois and Brodwin's (1984) classification, employs a self-typing instrument with five measures. Therefore, as measures for implementation tactics two items have been newly constructed for each of the above described five patterns. English translations are given in the Appendix. Items have been rated on Likert-type five-point scales.

Results

To confirm the questionnaire items as measures for implementation tactics a factor analysis has been performed on the 10 items. I compared a five factor solution (for the five tactics described above) with a three-factor solution which distinguishes only between autocratic, participative and culture oriented tactics. In terms of confirming the proposed factors the factor analysis and the subsequent VARIMAX-rotation suggested a clear preference for the three factor solution, confirming the measures for autocratic, participative, and cultural tactics. The loadings on the proposed factors are shown in Table 2. Reliability in terms of Cronbach- α (bottom line in Table 2) is above .65 for all items. Although the reliability is acceptable for the purpose of this study, it should be kept in mind that low reliability likely leads to underestimation of the influence of multiplicative constructs (Dunlap/Kemery 1987), like, for example, interaction terms.

Table 2: Rotated Component Matrix for Three-Factor Solution: Factorloading
(n=135; 75% of variance explained; Loadings <.30 are omitted; loadings on proposed factor are bold)

Interpretation of Factor	Autocratic	Participative	Culture
Item Nr. 1	,54		
2	,75		
3	,70		
4	,70		
5			,84
6			,86
7		,78	
8		,68	
9		,80	
10		,50	
Cronbach α	.65	.66	.75

Because the hypotheses predict the use of implementation tactics through environmental and organizational variables, as well as strategy content and the interaction between environment and strategy, I chose a step-wise regression analysis as the appropriate technique for analysis. More specifically, for each of the three implementation tactics as dependent variable a regression has been performed, with each group of independent variables entering sequentially into the regression. By this, the explanatory effect of each group of variable can be examined through the increase of explained variance. With highly correlated independent variables, as in this case, the examination of estimates for individual regression coefficients would be unreliable. Results are shown in Table 3.

Table 3: Moderated Regression¹ on Three Implementation Tactics
(Explained Variance at Each Step)

Entered Group of Independent Variables	Autocratic		Participation		Culture	
	R Square Change	F Change	R Square Change	F Change	R Square Change	F Change
Organization ²	,18	3,47*	,12	2,29+	,05	,79
Strategy ³	,01	,21	,13	4,16*	,03	,81
Environment ⁴	,20	4,70**	,074	1,61	,04	,74
Environment*Strategy ⁵	,06	4,38*	,12	8,96**	,10	5,40*

Hypothesis 1 predicts that all of the implementation tactics will be used more with increasing organizational complexity. Examination of incremental explained variance (ΔR^2) shows that organizational variables explain the use of autocratic tactics and – weakly significant - the use of participation. Examination of the influence of single variables, where other correlated independent variables have been omitted (Table 4), reveals that especially with decreasing centralization (or increasing specialization) the autocratic implementation tactics are used more. On the other hand, the use of culture is not influenced by any of the organizational variables (therefore no results are reported in Table 4). Thus, Hypothesis 1 receives only partial support. After entering organizational variables in the regression model, the use of autocratic implementation tactics is explained further to a significant extent through environmental variables (Hypothesis 2), whereas this is not the case for participative tactics. For the latter, the inclusion of strategy variables leads to a significant increase in the amount of explained variance (Hypothesis 3). Thus, hypothesis 2 and 3 are supported. None of these variables explain a significant amount of variance in the use of cultural tactics. Only the interaction term formed through environmental and strategy variables produces a significant increase in explained variance for culture oriented tactics. It did affect autocratic and participative tactics as dependent variables significantly as well.

To examine whether the direction of influence is as predicted, the influence of each construct has been examined through estimated regression coefficients, where only significant coefficients have been entered into the equation to avoid problems of multicollinearity. Since no significant variables have been identified for culture as a dependent variable this regression has been omitted in this step of analysis. Table 4 shows resulting standardized regression coefficients. All significant coefficients are in the expected direction. They show that autocratic as well as participative tactics are

¹ Based on a subset of n=60

² Log of size, formalization, centralization

³ Dummy Variables for Defender-Strategy, Prospector-Strategy

⁴ Uncertainty, Dynamism, Equivocality

⁵ Products of each environmental variable with each strategy variable

**p<0.01

* p<0.05

+ p<0.10

chosen more with decreasing centralization (or increasing specialization) of the organization, which reflects the increasing need for cross-functional control and cross-functional coordination to implement strategies. Again, this partially supports Hypothesis 1. In regard to environment, the strongest impact on the use of autocratic tactics appears to come from equivocality, which is in the expected direction (Hypothesis 2). Uncertainty never produces a significant regression estimate, which might be due to the low reliability of its measure. The pattern of significant influences of the dummy variables for defender and prospector strategies on the use of participative tactics is exactly as predicted through Hypothesis 3.

Table 4: Estimated Regression Coefficients⁶ on Three Implementation Tactics
(non-significant coefficients are omitted)

Independent Variables	Autocratic	Participation
Centralization	-,31**	-,31*
Defender		,38*
Prospector		,46*
Equivocality	,21*	

Discussion

This study is a step towards more systematic research into behavioural aspects of strategy implementation. It starts with the notion that it is not sufficient to characterize any behaviour as organizational, only if it can be observed in organizations. Rather, organizational and/or strategic conditions have to be shown to make a significant difference for behaviour. This has been tried in this paper. However, the dimensions identified here do not cover all behavioural aspects. For example, Bailey and Johnson (1995) took a broader view on strategy development processes by including types of analytic approaches (planning versus incremental). Beside this, they arrive at three interpersonal dimensions (command, political, and cultural) which are also covered by the typology used here. Further extensions would be possible through looking on strategy implementation as a process in time, for which the literature has identified different stages within this process (e.g. Lehner 1996). This would show that implementation tactics are used to a varying extent on different stages. This study focused instead on interpersonal behaviour and employed a cross-sectional approach, thereby excluding all of the above mentioned aspects.

Strategy implementation may be also viewed as a process inducing various forms of organizational learning, because both environmental threats and strategic responses are a prime trigger for organizational learning processes. Crossan and colleagues (Crossan/ Lane/White 1999; Vera/Crossan 2004) link individual, group and organizational learning through feed-forward and feed-back processes. They postulate effects

⁶ Based on a subset of n=60

** p<0.01

* p<0.05

+ p<0.10

of transformational versus transactional leadership for these processes, dependent on strategic and environmental conditions (Vera/Crossan 2004). These authors emphasize those aspects of transformational leadership which inspire members of the organization for critical questions, creativity and open-minded discussions. Such is important for organizational learning in times of strong strategic change. In the classification of implementation tactics used here, rather participative tactics (collaboration and market) may facilitate such behaviours. In contrast, when change has to be institutionalized, Vera and Crossan (2004) postulate transactional leadership to institutionalize learning within the organization. Because such leadership focuses on control, standardization and formalization more autocratic tactics (command, politics) will play a stronger role for this.

In contrast to such conceptual attempts, the main intention of this paper is an empirical contribution and to provide evidence that behaviour in the context of strategy implementation is indeed dependent on organizational, strategic, and environmental imperatives. For this we had first to develop measures for implementation tactics, because so far only conceptual papers and case study work existed in the field. Based on the seminal description of five tactics by Bourgeois/Brodwin (1984), the measures developed for this study allowed to distinguish three factors for implementation tactics: autocratic, participative and cultural tactics. Surely, in terms of traditional criteria these measures need further development. Nevertheless, because they should lead to rather conservative results, they serve the main purpose of this study, which is to confirm or reject hypotheses about the association of implementation tactics with environment, strategy and organization.

The present study confirms theoretical notions (e.g. Miles/Snow 1978) and previous empirical results (Waldersee/Sheather 1996) that prospector strategies are associated with participative tactics. In contrast to these studies, however, here it is shown that defender strategies are also implemented with participative tactics. For culture oriented tactics only a significant interaction between strategy and environment could be detected, which does not allow any clear interpretation. Further, I proposed that strategy alone can not predict the choice of implementation tactics. Rather, any tactic has to be treated as genuine organizational behaviour in the sense that behaviour is dependent on organizational and environmental conditions. Confirming this notion, the study shows that an autocratic implementation tactic is employed as a response to perceived environmental threats, especially to react to equivocal demands in the environment. Further, lowered centralization, which is associated with more specialization, induces an increased utilization of autocratic tactics. The results also indirectly confirm the decreasing influence of environmental imperatives through the formulation of a strategy, because autocratic versus participative tactics are discriminatively used dependent on the existence of a clear strategy. Autocratic tactics are used as responses to environmental imperatives, whereas participative tactics are used to align to internal imperatives as they are given through a formulated strategy. In other words, if a strategy is formulated to set the context within the organization, then the autocratic tactic loses its function as a means for coping with environmental threats. This could be interpreted as a substituting relationship between strategy formulation and implementation. On the other hand, a formulated strategy increases the need for participative tac-

tics, because it induce threats to existing stakes within the organization, which can be dealt with only by participation of relevant groups within the organization.

Once more, the call for an abandoning of the isolated treatment of formulation and implementation is issued here, because an underlying theme of this paper is that the meaning of implementation is completely changed if a strategy is formulated. Within the new context set to either, for example, a prospector or a defender strategy, participative tactics are more appropriate than autocratic tactics. In the other case, the environment and the need to control the organization remain dominant. This is done through autocratic tactics. In contrast to the rather clear predictions for autocratic and participative tactics, cultural tactics take a somewhat isolated role. As it is suggested through previous studies (Nutt 1986), it is used to a similar or even higher extent than other tactics (overall means differ only slightly in this study). However, the study suggests that cultural tactics are hardly used in a contingent way, because of the absence of a clear association to organizational, strategic or environmental imperatives. Because cultural tactics are close to conceptualizations of transformational leadership (Bass 1985), the present results have also relevance for the recent revival of this concept in the context of strategy and organizational learning (Vera/Crossan 2004).

A general shortcoming of quantitative studies is the necessity to restrict the research to a rather small set of variables. A fuller picture might be achieved in future studies by employing a qualitative approach. Such work should capture temporal patterns of the proposed relationships and therefore should be designed as longitudinal studies. Rather than being final results, the paper shall be one building block for future theory building and empirical research into organizational behaviour in the context of formulation and implementation of strategies and its relationship with environmental, organizational, and strategic imperatives.

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Appendix: Items for Implementation tactics, environmental and organizational variables (translated from German)

Implementation Tactics

"To pursue the main project / the main issue ... " (5-point-Likert-type scales: 1=perfectly agree, 2= highly agree, 3=somewhat agree, 4=highly disagree, 5= totally disagree)

Hierarchy

1. .. appropriate guidelines will be submitted to subordinate levels.
2. .. pressure will be put, if necessary.

Politics

3. ..coalitions will be sought, to fight against resistance.
4. .. solutions for conflicts of interests will be sought

Culture

5. .. reference to common values will be made.
6. .. it will be referred to loyalty to the firm or the department

Organism

7. .. the opinion of relevant employees is sought.
8. .. acceptance is sought.

Market

9. .. proposals of employees / subordinates are used as often as possible
10. .. the project / main issue will be based on proposals of employees / subordinates.

Environment

(5-point-Likert-type scales: 1=perfectly agree, 2= highly agree, 3=somewhat agree, 4=highly disagree, 5= totally disagree)

Uncertainty

- 1 .. Moves of our competitors are easy to predict
- 2 .. Demand and preferences of our customers are easy to predict

Dynamism

- 1 .. The market strategy has to be changed permanently
 - 2 .. Production and service technologies change permanently
 - 3 .. Lifecycles of our products and services are very short
- Equivocality* (1=does not exist, 2=hardly, 3=in part, 4=to a high extent, 5=to a very high extent)
- 1 .. To what extent is there a clear way to handle present issues?
 - 2 .. To what extent is there clearly defined knowledge for handling present issues?
 - 3 .. To what extent is there a comprehensive procedure to handle present issues?
 - 4 .. To what extent is one able to rely on well established rules and procedure for present issues?

Organizational complexity

Specialization

Who is dealing with the following functions exclusively (with no other assignments) (1=a large department, 2=a small department, 3=a full-time employee, 4=a part-time employee, 5=nobody)
PR, advertisements, Sales, Logistics, Recruitment, Personal Development, Social Issues, Procurement, Facility Management, Accounting, Workflow Control, Quality Control, Production Planning, Product Development, Organization Development, Legal Issues, Market Research

Formalization

Which of the following documents do exist in your organization?

Written Business Strategy, Organizational Manual, Operations Manuals, Organization Chart, Written Job Descriptions, Brochures with Security Measures and Working Conditions etc.