

## MIDDLE MANAGEMENT'S STRATEGIC INFLUENCE AND ORGANIZATIONAL PERFORMANCE\*

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### ABSTRACT

This study investigated relationships between middle managers' formal position, their strategic influence and organizational performance. Among the 259 middle managers represented in the study, managers with formal positions in boundary-spanning sub-units reported higher levels of strategic influence activity than others. At the organizational level of analysis, the study found that firm performance was associated with more uniform levels of downward strategic influence, and more varied levels of upward influence among middle management cohorts. The findings suggest that middle managers' strategic influence arises from their ability to mediate between internal and external selection environments. In addition, positive effects on organizational performance appear to depend on: (1) whether the overall pattern of upward influence is conducive to shifts in the network centrality of individual managers; and (2) whether the pattern of downward influence is consistent with an appropriate balance between the organization's need for control and flexibility.

### INTRODUCTION

A substantial amount of theory and research suggests that middle managers make important contributions to strategy (Bower, 1970; Burgelman, 1983a, b; er, 1983). Dutton and Ashford (1993), for example, describe how middle managers influence strategy through the 'selling' of strategic issues to top management. Sayles (1993) observes that middle managers play a role in integrating and aligning organizational competencies. Supporting these and similar arguments, empirical research has confirmed a relationship between four specific types of middle management strategic activity and an organization's strategic orientation (Floyd and Wooldridge, 1992).

This prior work provides a foundation for discerning middle management's strategic role. It does not, however, address two key questions: (1) How is middle

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management's strategic influence activity related to improved organizational performance?, and (2) What makes some middle managers engage in more of such activity than others? Answers to these questions are particularly important in large complex organizations where middle management's traditional role has been challenged most dramatically (Cascio, 1993). More generally, the focus on normative guidelines should increase the practical utility of research in this area.

This paper reports the results of a study involving 259 individuals from 25 organizations. The essential purpose was to assess middle management's strategic value. Premised on Burgelman's (1991, 1994) ecological framework, we theorized that middle managers' upward and downward strategic influence affects the organization's alignment with the external environment. Specifically, we hypothesized that middle managers in boundary-spanning positions are more likely to report higher levels of strategic influence because their formal role affords greater opportunities for mediating between the organization's internal and external constituencies. Further, we examined how specific patterns of influence among cohorts of middle managers are related to organizational performance.

#### THEORETICAL BACKGROUND

Thompson (1967) distinguishes three levels of organizational problems: technical, managerial and institutional. In general, the purpose of middle management is to take responsibility for, and control of, the managerial problem. As boundary spanners, middle managers mediate between the organization, its customers and its suppliers. As administrators, middle managers direct the organization's overall technical task. In fulfilling these responsibilities, middle managers are not simply spelling out top level orders (Thompson, 1967). Rather, there is a two-way interaction, where 'control is not unilateral' (Parsons, 1960).

In short, middle managers perform a co-ordinating role where they mediate, negotiate, and interpret connections between the organization's institutional (strategic) and technical (operational) levels. Put differently, middle managers link vertically related groups (Pugh et al., 1968), and as Likert (1961) argued, these 'linking pins' connect the overall direction provided by top managers with the day-to-day reality of lower-level managers. This mediating role establishes the potential for significant influence in the organization (March and Simon, 1958; Thompson, 1967). The focus here, however, is on the specific middle management activities that influence organizational strategy. A previous study developed a typology of two upward and two downward forms of middle management influence activity and showed how they were related to strategy. These are summarized in table I.

Table I suggests, middle management's upward influence activities have the potential to alter the firm's strategic course by providing top management with unique interpretations of emerging issues and by proposing new initiatives. In the synthesizing role, middle managers interpret ambiguous, diverse data related to the strategic situation, framing the perceptions of other managers and changing the strategic agenda (Dutton and Jackson, 1987). In championing new initiatives, middle managers have the potential to redefine the strategic context (Bower,

Table I. Forms of middle management strategic influence activities

*Upward*

## Synthesizing information:

- Gather information on the feasibility of new programmes
- Communicate the activities of competitors, suppliers, etc.
- Assess changes in the external environment

## Championing:

- Justify and define new programmes
- Evaluate the merits of new proposals
- Search for new opportunities
- Propose programmes or projects to higher level managers

*Downward*


## Facilitating adaptability:

- Relax regulations to get new projects started
- 'Buy time' for experimental programmes
- Locate and provide resources for trial projects
- Provide a safe haven for experimental programmes
- Encourage informal discussion and information sharing

## Implementing deliberate strategy:

- Monitor activities to support top management objectives
- Translate goals into action plans
- Translate goals into individual objectives
- Sell top management initiatives to subordinates

*Source.* Adapted from Floyd and Wooldridge (1992).

; Burgelman, 1983a), and in so doing, reshape the strategic thinking of top management (Floyd and Wooldridge, 1992). Thus, as a result of middle management upward influence, strategy often unfolds or emerges differently than originally conceived.

With downward influence, middle managers become change agents, fostering adaptability and implementing deliberate strategy. The facilitating role stimulates development in others and promotes learning, increasing the ability of members to respond to change (Nonaka, 1988, 1994). In the implementation role, middle managers engage in an ongoing set of interventions to bring organizational action in line with deliberate strategy (Nutt, 1987; Sayles, 1993; Schendel and Hofer, 1979). In each role, then, middle managers have the potential to affect the organization's alignment with its external environment by injecting divergent thinking and change-oriented behaviour into the strategy-making process.

### *Organizational Adaptation and Middle Management Strategic Influence*

Burgelman's (1991, 1994) theory of intraorganizational ecology provides a basis for describing relationships between middle management influence and organization adaptation. From this perspective, strategic renewal emerges from an array of initiatives developed at operating levels which compete for selection in the resource allocation process. Strategic change is not so much a process of deliberate decisions by top management, but an emergent process where adaptation

depends on the substantive fit between what Burgelman describes as the 'internal and external selection environments'.

Within the internal selection environment, strategic change forms out of the variety of initiatives arising from operating levels. These initiatives are responses to forces in the external environment, such as customer complaints, requests for new products, and so on. Whether such initiatives are adaptive and improve organizational performance depends on how consistent they are with the values expressed by external constituencies. Said in other words, the external selection environment is the ultimate arbiter of the economic value of a change in strategy.

For example, the success of a product development initiative depends on whether customers are willing to pay a price that recognizes the value of design and manufacturing decisions within the organization. The values expressed at key points in the development process (e.g. design trade-offs between price and performance), therefore, must fit with the external market's sense of value. More generally, alignment between the values governing the internal selection process and the values governing choices by external constituencies is the key to adaptive strategic behaviour.

The mediation between internal and external forces required to achieve such alignment is made more difficult by the presence of inertial forces within the organization (Hannan and Freeman, 1984, 1989). Deliberate goals and official strategies are useful for increasing consistency and reliability in organizational behaviour, but these and other processes also create organizational inertia. Inertia displays itself in many ways, including commitment to a particular set of norms and values (Leonard-Barton, 1992). These values are a critical factor in the internal selection environment. As a result, the decisions and actions executives take with regard to *divergent* alternatives – those that vary significantly from the existing course – too easily fall prey to negative bias. Adaptive responses may be rejected in the absence of objective grounds or even without any consideration (Huff et al., 1992). Indeed, top managers are often identified closely with the official strategy, and this makes it less likely they will propose divergent initiatives.

As an alternative to the top-down, rational account of strategic adaptation, Burgelman's (1994) evolutionary process view identifies middle managers as the ones who often recognize the need for divergence and who initiate change. Middle managers serve as buffers between initiatives at the operating level and top management scrutiny, providing resources and cover for programmes that diverge from the official course (Bower, 1970). When the 'timing is right', middle managers champion initiatives to upper management (Bower, 1970), and if ratified, proposals become the seeds of new competencies. Applying his theory to Intel Corporation, for example, Burgelman (1994) shows how the evolution of core competence and change in the official strategy resulted from middle management's influence.

The foregoing discussion raises two implications central to the present study. First, middle management's influence on strategy appears critical to the alignment of the external and internal selection environments. Second, alignment requires influence from middle managers who are exposed to the demands of external constituents and who therefore recognize the potential value of divergent initiatives.

### *Boundary Spanning and Middle Management Strategic Influence*

Boundary spanning has been studied frequently as a source of social influence within organizations (e.g. Aiken and Hage, 1972; Brass, 1984; Jemison, 1984; Pettigrew, 1972; Tushman and Romanelli, 1983). As part of a structuralist theory of power (Hickson et al., 1974; Pfeffer and Salancik, 1978), boundary-spanning units play a key mediating role between environmental uncertainty and internal organizational arrangements (Thompson, 1967). This role creates dependencies which are the source of intraorganizational power (Astley and Sachdeva, 1984).

At the individual level of analysis, studies have focused on the personal characteristics of boundary spanners (Tushman and Scanlan, 1981a) and supervisory and gatekeeping behaviour (Katz and Tushman, 1983; Tushman and Scanlan, 1981b). Tushman and Romanelli (1983) showed that the influence of boundary-spanning individuals on administrative and technical decisions was greater at higher levels of task and environmental uncertainty. At the organizational level, Jemison (1984) found evidence supporting the general importance of boundary spanning to a sub-unit's strategic influence. Just as significantly, he described the relationship between technology and three types of boundary spanning: information acquisition and control, domain determination and interface, and physical input control. At-Twajri and Montanari (1987) also identified three types of boundary-spanning activity. They modelled environmental interdependency and environmental uncertainty as antecedents of these.

Thus, prior research suggests a link between a middle manager's formal position in a boundary-spanning sub-unit and the potential for strategic influence. In particular, certain functional sub-units (e.g. sales, marketing, R&D) are likely to play a greater boundary-spanning role than others. Managers in these sub-units are thereby more likely to find themselves mediating between internal and external constituencies. This is not to say that boundary spanning is limited to managers in a particular set of sub-units. Individual differences and propensities are other likely predictors of boundary spanning. Notwithstanding these other variables, our first hypothesis articulates a positive relationship between a manager's formal position in a boundary-spanning sub-unit and the strategic influence behaviours described in table I.

*Hypothesis 1:* Middle-level managers in boundary-spanning units will report higher levels of strategic influence activity than those in nonboundary-spanning positions.

### *Upward Influence and Organizational Performance*

To have a positive effect on firm strategy, upward influence must be consistent with the evolving set of issues posed by the internal/external alignment problem. This suggests that one should not expect a simple relationship between more overall upward influence and higher firm performance. In fact, if all or even most of a firm's middle managers were attempting upward influence, many of these attempts would likely be based narrowly on functional priorities or self-interest (Guth and MacMillan, 1986).

To be strategic, upward influence requires in-depth synthesis of strategically relevant information and consideration of the overall business rather than any

≡cular sub-unit or function. In the championing and synthesizing roles, middle management draws on their unique knowledge of customers, operating capabilities, and top management intent. Since the strategic relevance of knowledge varies over time and since knowledge is unevenly distributed (Bartlett and Ghoshal, 1993; Nonaka, 1994), upward influence is probably not something that middle managers pursue with equal intensity at all times or that all middle managers engage in equally at any particular point in time.

More specifically, while upward influence may be conceived of as an individual activity directed at top management, its relationship to organizational performance is best understood by how it occurs within the broader social context of the organization (Tichy, 1981). Hutt et al. (1988), for example, used network analysis to show how an autonomous marketing strategy emerged within an organization. Initially, the idea for the new strategy developed from a salesman's interactions with a key customer. The salesman then brought the idea to a middle-level marketing manager, who then engaged in a series of dyadic interactions with operating and middle level personnel throughout the firm. At the centre of these interactions, the middle-level marketing manager provided a linking function for the initiative as it moved up, down and across the organization, and between the organization and the external environment. Beyond building awareness and commitment to the new strategy, these interactions co-ordinated parallel activities that pushed the initiative forward within the organization. Ultimately, although many managers and other individuals were involved in the creation and development of the initiative, one manager emerged as the key champion, who brought the initiative forward to top management.

This example illustrates how new initiatives involve 'a network-building effort that centers on the creation, adoption, and sustained implementation of a set of ideas among people who ... become sufficiently committed to these ideas to transform them into "good currency"' (Van de Ven, 1986, p. 601).

Autonomous strategic initiatives emerge, then, from critical inter- and intra-organizational linkages, and in this process certain middle managers who are in close proximity to these linkages, emerge as informal leaders. An organization's unique set of competencies evolves from a network of relationships, and middle management's location at the nodes of these relationships positions them to 'play a crucial role in integrating and aligning competencies' (Black and Boal, 1994, p. 136). Due to differences in network centrality (Hutt et al., 1988), however, within any given organization, certain middle managers are likely to exert more upward strategic influence than are others.

As reflected in hypothesis 1, because of their links to the external environment, middle managers in boundary-spanning positions are, on average, likely to exert more strategic influence than others. Strategy formation is an emergent process, however, characterized by 'changing roles' and 'fluid participation by organizational members' (Hutt et al., 1988, p. 13). For any given initiative, then, an individual manager's influence is likely to 'ebb and flow' over the life of the initiative. While the genesis for new initiatives most often occurs within boundary-spanning units (Hutt et al., 1988), nonboundary-spanning managers may ultimately be better positioned to co-ordinate critical interfunctional linkages.

Broadly speaking, therefore, managers in boundary-spanning sub-units have more upward strategic influence than others (hypothesis 1), but the point here is



that different managers exert differing levels of upward influence at different times. By virtue of their inter- and intraorganizational network centrality, certain middle managers at a particular point in time will be better positioned than others to comprehend the strategic problem or propose an initiative and exert upward influence. At other times, other managers will be more centrally located and it is this fluidity in middle managers' upward influence that fosters organizational adaptation. Indeed, sustained levels of influence by particular sub-units over long periods of time create organizational rigidities and resistance to change (Leonard-Barton, 1992; Mintzberg, 1983).

Thus, in hypothesizing the relationship between middle management upward influence on strategy and performance at the organizational level of analysis, it seems unlikely that performance improves (or declines) in direct proportion to the absolute level of championing or synthesizing going on in the organization. Rather, middle manager upward influence on strategy would seem to have a positive influence on firm performance when it is based on the manager's unique knowledge and expertise. In a cross-sectional study assessing upward influence at a particular point in a firm's history, then, we expect that more varied levels of upward influence among a firm's managers will be associated with firm performance. Formally:

*Hypothesis 2:* There will be a positive association between more varied levels of upward influence activity reported by a firm's middle managers and measures of organizational performance.

#### *Downward Influence and Organizational Performance*

In contrast to upward influence, existing theory suggests that uniformity in downward influence among middle managers will be associated with higher organizational performance. In their facilitating role, managers encourage and support the development of autonomous initiatives. This increases diversity in the intraorganizational ecology and enhances the organization's ability to create new strategies and acquire new competencies. In their implementation role, middle managers clarify and advance intended strategy. These actions serve to focus organizational effort and enhance the efficient execution of strategy. Thus, although the downward influence roles pull in different directions, when combined consistently they help to create the appropriate balance between organizational needs for creativity and efficiency (Burgelman, 1983a). The optimal balance is a contingency issue that differs according to the firm's strategic context, but regardless of the kind of balance needed, there is a need for consistency in the arrangements within firms (Miles and Snow, 1978; Miller and Friesen, 1978; Mintzberg, 1978, 1985).

Strategic action, whether autonomous or induced, cuts across intra-organizational boundaries, and its development and implementation depends on consistent crossfunctional influence. An autonomous initiative, for example, may have a specific point of origin and ultimately be championed by a specific manager. Between these two end points, however, the implications of the initiative need to be explored and developed across a range of functional units. There is a consistent need for information sharing, informality and flexibility throughout the firm. Inconsistent levels of downward influence in the cross-functional facilitation of

emerging initiatives is therefore likely to hinder the firm's capacity to create new strategies.

Similarly, organizational performance appears to be associated with consistent levels of middle management influence in the implementation of deliberate strategy. In this role, middle managers translate strategic objectives into shorter-term 'operational foci of behavior' (Hrebiniak and Joyce, 1984, p. 107), and a certain degree of uniformity is required to achieve horizontal consistency at operating levels. Without consistency, co-ordination breaks down among the various elements of strategic change. Inconsistent levels of downward influence among a firm's middle managers is likely, therefore, to hamper the overall realization of strategy. Stated formally we expect:

*Hypothesis 3:* There will be a positive association between the consistency in reported levels of downward influence activity among a firm's middle managers and measures of organizational performance.

Figure 1 summarizes the relationships identified by the hypotheses. Constructs shown in the shaded areas depict unmeasured, intervening processes and represent the essence of our explanation for each relationship.

## METHODS

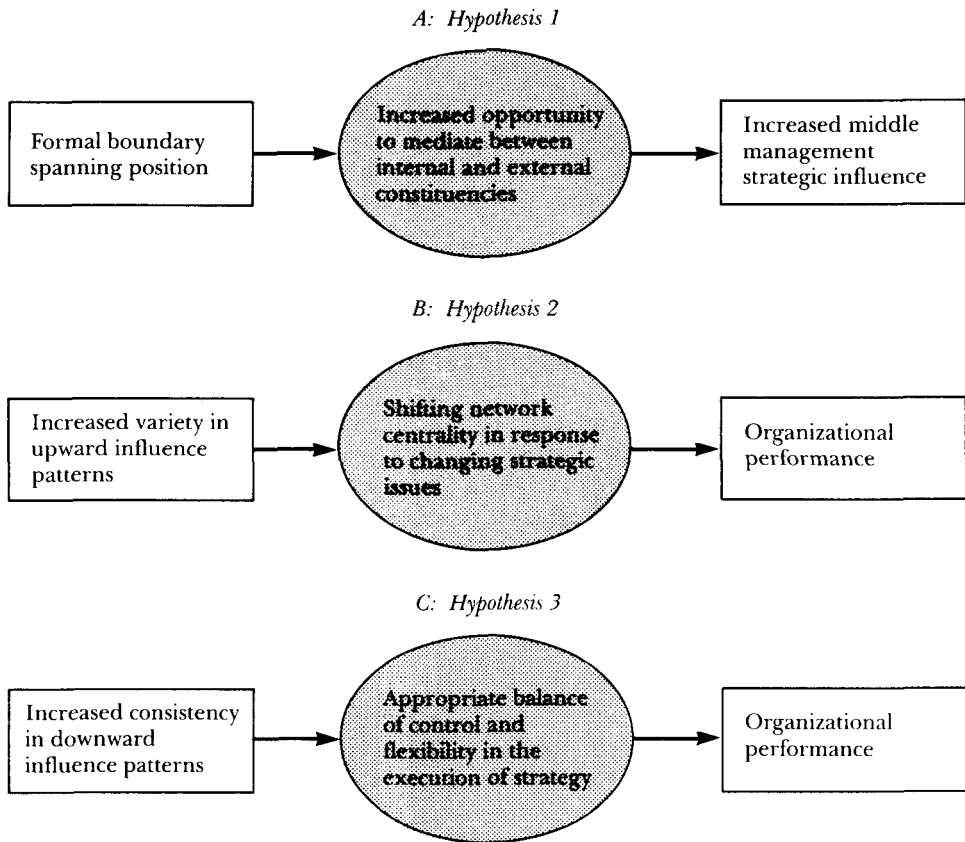
A considerable body of qualitative research and normative theory already exists on the relationship between middle managers and organizational performance (Bower, 1970; Burgelman, 1991, 1994; Kanter, 1983; Nonaka, 1988; Sayles, 1993). While important in its own right, the generalizability of this earlier work is limited by its clinical, case study design. In contrast, we wanted the present research to develop inferences that would be relevant to a broader population. In addition, because we wanted to ask managers about behaviour with implications for strategy and performance, this raised concerns about preserving confidentiality and minimizing social acceptability response bias. Therefore, to facilitate a diverse sample and to provide potential respondents with needed anonymity, we chose a large-scale, survey design. The following section describes data collection procedures, operational definitions and control variables used in the study.

### *Data Collection*

A questionnaire on managers' involvement in their organization's strategy process was responded to by 259 middle managers from 25 organizations representing a wide variety of industries. To identify potential respondents, we examined the organizational charts of the 25 firms. To permit comparison across these organizations, we relied on an operational definition of middle managers provided by Pugh et al. (1968): Middle managers are organization members who link the activities of vertically related groups and who are responsible for at least sub-functional work flow, but not the work flow of the organization as a whole.

The number of potential respondents from each organization depended on the size, number of levels, and number of functions in the organization. This





*Note:* Variables shown in boxes are measured in the study. Constructs in shaded ellipses are not measured but describe processes that intervene in observed relationships.

Figure 1. Summary of hypothesized relationships and intervening processes

selection process produced a sample of 264 middle managers. In addition, the chief executive of each organization responded to a separate survey that measured the dependent variable. The hierarchical breakdown was 16 per cent one level below the top manager of the firm or division, 66 per cent two levels below, and 17 per cent three levels below the top. Because surveys were delivered by research assistants who worked within the organization studied, 98 per cent (259) of those who agreed to participate returned completed questionnaires. Table II highlights key features of the data.

### *Measures*

*Boundary-spanning position.* Thompson (1967) argued that organizations establish boundary-spanning units in order to buffer the technical core from environmental uncertainties. Management activities within these units are directed toward mediating organization-environment interactions (Jemison, 1984). Although

Table II. The research sample

Firm and industry	Number of middle managers	Index of middle management strategic influence activity <sup>a</sup>		Performance <sup>b</sup>					
		Upward	Downward	1	2	3	4	5	6
1. Bio tech. (37) <sup>c</sup>	6	0.94	1.26	3	4	3	6	6	5
2. Insurance (250)	9	0.88	1.29	4	6	3	4	5	3
3. Paper prod. (1,000)	11	0.70	1.11	4	3	3	4	5	4
4. Insurance (500)	10	0.61	1.29	4	6	6	6	7	6
5. Health care (1,000)	16	0.80	1.20	6	6	7	6	7	6
6. Insurance (950)	14	0.85	1.23	5	5	4	5	4	4
7. Insurance (650)	16	0.58	1.27	5	5	5	6	4	4
8. Health care (150)	8	0.46	1.21	6	6	7	5	6	6
9. Sporting goods (350)	7	1.01	1.31	5	6	6	6	7	7
10. Banking (300)	6	0.77	1.53	6	7	7	6	7	6
11. Insurance (1,250)	17	0.85	1.13	2	4	2	3	3	1
12. Insurance (550)	10	0.23	1.15	6	5	5	6	6	4
13. Publishing (450)	8	0.99	1.34	6	5	3	5	4	3
14. HVAC (375) <sup>d</sup>	5	0.00	1.31	5	5	6	5	6	4
15. Construction (465)	7	0.42	1.13	6	6	5	5	5	4
16. Natural gas (600)	10	0.93	1.38	4	3	1	4	2	4
17. Food service (550)	21	0.83	1.30	3	3	2	2	1	1
18. Insurance (59)	15	0.95	1.32	3	4	3	4	5	4
19. Precision optics (7,500)	20	1.03	1.30	3	4	3	3	4	4
20. Analytical inst. (90)	5	1.08	1.12	4	4	4	3	5	5
21. Grocery products (900)	12	0.79	1.09	4	3	3	3	4	5
22. Consulting (55)	5	0.14	0.90	3	4	2	2	2	3
23. Grocery products (600)	8	0.83	1.40	3	4	5	4	4	4
24. Petroleum refining (500)	6	0.80	1.00	4	4	4	5	4	4
25. Reprographics (550)	7	0.96	1.33	3	4	3	3	3	3
Overall mean	( <i>n</i> = 259)	0.77	1.24	4	5	4	4	4	4

*Notes:*

<sup>a</sup>Scores in the upward and downward columns are dispersion indices for cohorts of middle managers in each organization. To avoid negative signs, the index is designed to show the degree of *consistency* with each cohort. Low numbers, therefore, represent *more* dispersion (i.e. more variety).

<sup>b</sup>Key to values for performance variables: 1 = overall effectiveness achieving established goals; 2 = overall competitive position; 3 = return on assets; 4 = efficiency of operations; 5 = overall financial performance; 6 = growth rate.

<sup>c</sup>The approximate number of employees is shown in parentheses.

<sup>d</sup>HVAC is a commonly used American acronym for Heating, Ventilation and Air Conditioning contractors.

many specific definitions have been proposed in the literature (see Jemison (1984) for a review), it is generally agreed that the function of boundary spanning activity focuses on the inputs or outputs of organizational systems.

Although boundary-spanning activity is not limited to a particular set of organizational sub-units (Tushman and Scanlan, 1981a), it can be argued that structure is the 'first and foremost' determinant of the boundary spanning domain. Thus, an individual's formal position within a sub-unit is a principle factor governing the extent of their boundary spanning activity (Brass, 1984; Perrow, 1970). Sub-unit domain also defines a constraint on how much influence results from boundary spanning. Therefore, our measure of boundary

spanning was based on functional descriptions of sub-units and formal organizational roles.

As part of the survey, managers responded to open-ended questions concerning the function of their unit within the organization and the title of the individual to whom they reported. From this, respondents were classified into nine functions: engineering ( $n = 3$ ), finance ( $n = 35$ ), accounting ( $n = 37$ ), management information systems (MIS) ( $n = 8$ ), operations ( $n = 90$ ), quality control ( $n = 3$ ), marketing ( $n = 37$ ), purchasing ( $n = 4$ ), and human resource management ( $n = 10$ ).

Thirty-two respondents failed to report the necessary information, or provided a response that could not be classified. The survey included a guarantee of confidentiality, but discussions with several of the managers suggested the likelihood that those who withheld background information did so in order not to be identified. While this introduces the potential for non-response bias, the magnitude of such an effect is expected to be low, given the number of missing identifiers and the otherwise high level of participation.

To classify respondents as having positions with either boundary-spanning or nonboundary-spanning responsibilities, a two-step process was used. First, consistent with criteria specified in Thompson (1967) and elsewhere (Jemison, 1984), three functions (marketing, purchasing, and human resource management) were classified as boundary spanning and four (finance, accounting, operations, and quality control) were classified as non-boundary spanning. In addition to functional descriptions, the title respondents gave for direct superiors made it possible to check for externally oriented individuals even within one of the nonboundary-spanning units. For example, someone in finance who reported to the treasurer would have been reconsidered for boundary-spanning designation, but no such exceptions were found. In addition, researchers held discussions with knowledgeable managers inside the organization to confirm these tentative classifications and to further probe the responsibilities of managers who reported their functions as engineering and management information systems. The initial classifications were confirmed from these discussions, and all three of the engineering positions and four of the MIS positions were identified as boundary spanners. In total, 58 managers were classified as boundary spanning and 169 as non-boundary spanning.

*Strategic influence activity.* Specific examples of middle management influencing behaviour in strategy were identified from a review of Bower (1970), Burgelman (1983b), and Kanter (1983). Items developed from this review were pre-tested on 27 practising managers who were encouraged to provide comments and ask questions. From this two-step process, 21 Likert-type items assessing how frequently middle managers performed various strategic activities (1 = never, 5 = very frequently) were developed. The frequency scale was intended to capture the extent to which managers perceived the roles to be part of their work activity, rather than to measure the number of times a given activity was performed. Accompanying instructions clarified that the activities listed were not intended to be a comprehensive description of managerial work.

Principle components factor analyses of the responses were conducted to condense the data and to create measurement scales for four types of middle management strategic behaviour: championing alternatives, synthesizing information, facilitating adaptability, and implementing deliberate strategy (Floyd and Wooldridge, 1992).<sup>[1]</sup> In the analysis reported here, the items listed in table I under championing and synthesizing were summed to create a scale for each manager's overall upward influence ( $\alpha = .79$ ). Similarly, the items for facilitating and implementing were summed to create a scale for downward influence ( $\alpha = .69$ ).

*Patterns in middle management strategic activity.* Hypotheses 2 and 3 shift the unit of analysis to the organizational level and predict different effects on organizational performance. Hypothesis 2 predicts that more varied levels of upward influence activity will be reported among managers in higher performing organizations, and hypothesis 3 predicts that more consistent (less varied) levels of downward influence activity will be reported in higher performing organizations. To assess the extent to which reported responses within a firm varied, therefore, we developed an index of statistical dispersion based on an approach used for measures of top management team consensus (Bourgeois, 1980; Dess, 1987). Specifically, the standard deviation of scale scores on the upward and downward strategic activity variables reported by managers in each organization was subtracted from a constant to produce a measure of dispersion in how managers from the same organization reported upward and downward influence activity. Accordingly, as shown in table II, each organization has a unique score for both upward and downward activity. A high score indicates that an organization's managers reported more consistent levels of that type of influence behaviour (i.e. less dispersion), while a low score signifies that managers reported more varied levels of influence activity (i.e. greater dispersion).

*Performance.* Comparable, objective performance data were not available for every organization in the sample, which was drawn from diverse industries and from divisions within diversified corporations. Accordingly, subjective measures of organizational performance were obtained separately from each organization's top manager. Following Dess and Robinson (1984), top managers for each organization completed a separate survey wherein they rated on a seven-point scale their perceptions of performance over the most recent three-year period in the following areas: overall effectiveness achieving established goals, overall competitive position, return on assets, efficiency of operations, overall financial performance, and growth rate. A principle components factor analysis of the six performance items yielded a single factor solution that accounted for 76 per cent of the variance. Thus, as an additional measure, the six items were summed to create an overall performance scale ( $\alpha = .93$ ).

A previous study (Wooldridge and Floyd, 1990), found similar subjectively reported assessments to be significantly related to objective, publicly available performance measures. In the present case, objective measures of sales growth were available from published sources for 12 of the 25 organizations. The correlation (.58) between these measures and the measures of growth provided by the top managers was significant ( $p < .05$ ).<sup>[2]</sup>

### *Controls*

Various extraneous factors have the potential to affect the results of this study. To reduce this threat, control variables at the individual, industry, and organizational level were included in the analysis. First, at the individual level, tenure in position and level in the organization's hierarchy were included on the questionnaire and introduced into the analysis as controls that could potentially affect a manager's influence on strategy (Schilit, 1987).

Second, at the industry level, data from Standard and Poor's Industry Surveys were used to assess the growth and stability of industry revenues for the five years just prior to the study. Following the procedure outlined in Dess and Beard (1984), these values were calculated as the regression coefficient of time on the dependent variable and the dispersion about the regression line (both divided by mean industry revenues to correct for absolute industry size). Finally at the organizational level, the natural log of the number of employees in each organization was calculated to assess organizational size. These industry and organizational level variables were introduced into the analysis as controls potentially affecting organizational performance.

## RESULTS

The research model and hypotheses for this study stipulate relationships among variables at two levels of analysis. At the individual level of analysis, hypothesis 1 predicts a positive relationship between boundary-spanning position and the level of strategic influence. In hypotheses 2 and 3 the organization is the unit of analysis, and individual data from managers is aggregated to produce a measure of organizational influence patterns. This requires two complementary analyses of the two sets of data. Table III presents means, standard deviations, and correlations among the study's variables at both levels of analysis.

Table IV reports ANOVA results that were used to test the first hypothesis which predicted that boundary-spanning middle managers would report higher levels of upward influence activity than nonboundary-spanning managers. Since factors, other than the functional orientation of the sub-unit, could affect a manager's propensity to engage in these activities, two covariates, hierarchical level and tenure in position, were included in the analysis as control variables. As the table shows, the results support the hypothesis. Differences in reported levels of influence activity were significant and in the expected direction. Middle managers in boundary-spanning positions reported higher levels of both upward and downward forms of strategic influence than nonboundary-spanning managers, and the difference is greater for upward influence. Of the control variables in this analysis, job tenure alone appeared to affect the relationship, and this was only significant for downward influence.

As table III shows, there are significant interrelationships between the variation in reported levels of upward and downward influence behaviour and the performance measures. Ordinary least-squares regression analysis, therefore, was used to examine the relationships between managerial behaviour and organizational performance.

Table V presents regression results which support both hypotheses. The

Table III. Means, standard deviations and correlations

Variable	Means	s.d.	1	2	3	4	5	6	7	8	9	10	11	12	13	14
1. Individual level of upward influence	4.70	1.10														
2. Organizational upward influence score	0.79	0.22	.07													
3. Individual level of downward influence	4.30	0.61	.42**	.01												
4. Organizational downward influence score	1.24	0.12	.06	.35**	.04											
5. Effectiveness achieving goals	4.10	1.30	.03	-.25**	-.08	.13*										
6. Competition position	4.50	1.20	.09	-.21**	-.05	.22**	.69**									
7. Return on assets	3.80	1.90	.03	-.33**	-.10	.13*	.72**	.78**								
8. Efficiency of operations	4.20	1.30	.16	-.11	.00	.20**	.73**	.76**	.66**							
9. Overall financial performance	4.40	1.80	.09	-.17*	-.07	.07	.63**	.77**	.76**	.85**						
10. Rate of growth	3.80	1.80	.07	-.15	-.08	.09	.69**	.58**	.82**	.61**	.72**					
11. Overall performance	24.90	7.40	.08	-.27*	-.06	.17	.83**	.86**	.92**	.87**	.91**	.86**				
12. Organizational size	6.31	1.16	.03	.38**	-.06	.09	-.19*	-.21**	-.01	-.23**	-.14	.07	-.05			
13. Industry growth	0.15	0.09	-.13	-.09	.00	-.19*	-.25**	.10	.06	-.15	-.01	-.28**	-.14	.03		
14. Industry stability	0.17	0.14	-.04	.00	.11	.04	-.12	.36**	.02	.15	.09	-.07	-.03	-.16	.32*	
15. Years in position	2.49	1.98	.07	-.07	-.13	.07	.15	.05	.10	.08	.04	.13	.19	.13	-.02	-.05

*Notes:* The influences score, industry growth, industry stability, organizational size, and organizational performance are organizational level variables and the intercorrelations among them reflect a sample size of 15. The level of upward and downward influence measures and years in position are individual level variables and reflect a sample size of 259.

\* < .05; \*\* < .01

Table IV. ANOVA results

<i>Influence scores</i>	<i>Non-boundary position</i>	<i>Boundary-spanning position</i>	<i>F</i>
Level of upward influence	4.5	5.2	17.86***
Covariates:			
Job tenure			.5
Hierarchical level			.006
Level of downward influence	4.2	4.4	9.13**
Covariates:			
Job tenure			4.2*
Hierarchical level			1.4

\*  $p < .05$ ; \*\*  $p < .01$ ; \*\*\*  $p < .001$

Table V. Multiple regression analysis

<i>Standardized coefficients</i> <i>Dependent variables</i>	<i>Strategic influence activity</i>		<i>R<sup>2</sup></i>	<i>Adjusted F</i>
	<i>Upward</i>	<i>Downward</i>		
Effectiveness	-.47***	.22***	.19	33.95***
Competitive position	-.36***	.33***	.15	24.47***
Return on assets	-.43***	.28***	.17	25.26***
Efficiency	-.38***	.29***	.14	24.18***
Overall financial performance	-.25***	.14*	.05	8.11***
Growth rate	-.20**	.16**	.04	5.40**
Composite performance index	-.32***	.26**	.11	15.17***

*Notes:* Coefficients represent the relative strength of the relationship between the upward and downward strategic activity measures and organizational performance. Because larger values of the index represent less varied (more uniform) levels of reported middle management strategic activity within an organization, the negative signs for upward activity are consistent with hypothesis 2, while positive signs for downward activity are consistent with hypothesis 3.

\*  $p < .01$ ; \*\*  $p < .001$ ; \*\*\*  $p < .0001$

analyses indicate that organizations with middle managers reporting more uniform levels of downward influence activity and more varied levels of upward influence activity tend to have significantly higher levels of organizational performance.

Since the sample includes firms of differing sizes from a variety of industries, however, the possibility exists that organizational and industry differences may



be influencing these results. Unfortunately, the small sample size did not allow us to enter controls into the full regression model. Thus, following a procedure recently adopted by Kesner et al. (1994), we conducted supplementary analyses removing an independent variable and entering a control variable until all possible combinations of independent and control variables were analysed. The control for organizational size did prove significant when entered into several of the regression equations. In none of the analyses did any control variable negate the significance of a parameter estimate or of the overall regression model. Hence, the control variable analyses do not support the proposition that differences in organizational size, industry growth, and stability account for relationships shown in table V between the variation and performance measures. In addition, since in no case did the inclusion of a non-correlated control variable alter the sign of the coefficient estimate for the remaining independent variable, there is no evidence that multicollinearity was a factor in the results (Neter et al., 1983).

In short, the results in table V appear to provide evidence in support of both hypotheses 2 and 3. Higher levels of organizational performance are associated with measures of variation in the reported levels of upward strategic influence. Organizations reflecting a differential and shifting pattern of upward influence appear to perform better than those where the level of upward influence in the strategic roles is more uniform. In the case of downward influence, just the opposite pattern is supported: greater uniformity of middle manager downward strategic influence is associated with higher levels of organizational performance.

#### LINKING MIDDLE MANAGEMENT INFLUENCE TO THE STRATEGIC RENEWAL PROCESS

Before drawing conclusions, it is important to consider three limitations of the study. First, the small sample size requires the exercise of caution in interpreting or generalizing the results. Although the organizations making up the sample compete in a wide variety of industries, the representativeness of the sample is limited, since organizations were selected based on their accessibility. Second, the relationships reported, do not necessarily reflect causation. Past performance may influence middle management activity and reciprocal causation is plausible. Lastly, self-reported measures may not fully capture the phenomena of interest, and formal organizational position in particular may be considered a relatively crude indicator of boundary spanning. Care should be taken not to overstate the conclusions of this single study.

Notwithstanding these limitations, the findings are interesting in terms of their consistency with the theory on organizational renewal. First, the association between variety in middle management's upward influence and organizational performance comports broadly with theory suggesting the importance of variety in the strategic process (Hart and Banbury, 1994; Hurst et al., 1989). More speculatively, the findings also fit with emerging theory regarding firms' dynamic capability (Nelson, 1991). This view contends that to remain competitive over time, firms must develop processes that allow them continually to accumulate and deploy new capabilities (Porter, 1991). Inherent in this process is the notion

that managers' influence 'ebbs and flows' depending on the needs of the strategic situation. Such a view is supported here, and the findings overall suggest that middle management activity is central to organizational renewal.

The paper began by asking two related questions: How are the activities of middle managers that influence strategy related to improved organizational performance? And, what makes some middle managers engage in more of these activities than others? The findings suggest that the overall pattern of strategic influence – the extent to which levels of strategic influence are consistent or varied among a firm's middle managers – affects organizational performance. In addition, the opportunity for boundary spanning afforded by formal position appears to be a significant predictor of an individual's strategic influence. Both of these findings are consistent with an ecological view of strategy.

The apparent applicability of an ecological metaphor suggests that future research should focus on interactions and interrelationships among managers. Emphasis should be placed on explaining how specific intraorganizational relationships, including social and economic exchanges between managers, are related to unique organizational capabilities. The extant literature on managerial teams, social network theory, social and procedural justice, and organizational cognition appear especially relevant. Interesting questions might include: How does middle management's sense of organizational justice affect their willingness or ability to contribute to strategy? What kinds of management teams (outside top management) have a significant influence on organizational strategy, and under what circumstances does this influence arise? How can social network theory help us to understand the rigidities associated with organizational influence and the associated problems of strategic inertia?

For organizational restructuring, the notion that managerial influence occurs within an ecological system suggests that it may be difficult, if not impossible, to isolate the effects of an individual manager's influence from overall system effects. If the ecological analogy holds, the complexity of the interrelationships that make up the system are such that the elimination of individual managers may have broad system-wide consequences. Experience with the natural environment suggests that often these consequences cannot be fully anticipated. This may be particularly true in higher performing organizations where the degree of an individual's strategic influence differs over time depending on their sub-unit's function and their current centrality to the strategic issues facing the organization. Thus, the results support the idea that large-scale restructuring decisions inevitably destroy part of an organization's social network, and this may partly explain why firms have experienced negative results from the restructuring process (Cascio, 1993; Heenan, 1989).<sup>[3]</sup>

Though an individual's influence is likely to vary over time, only about one-quarter of the managers in the organizations we studied were in boundary-spanning positions. This percentage may not be generalizable, but it suggests that a fraction of the middle management population is positioned to become influential in the strategic process. These managers, who are in touch with the latest market and technical developments, are important to the process of strategic renewal. They are also likely to be more highly valued in the external job market, however, and securing their loyalty in an era of downsizing may be critical to organizational survival.

Perhaps as importantly, if top management wants to instill a new set of expectations for middle managers as innovators and change agents, the results suggest the need for putting more managers into regular contact with the environment. That boundary spanners are more influential than others means that the overall level of middle management involvement can be expected to increase with increases in the number of positions in boundary-spanning sub-units, or alternatively, with increases in the number of managers moving through such positions over time. Increasing the overall level of strategic involvement in this proactive manner may be particularly important for organizations where the internal selection environment developed under relatively munificent circumstances but who are now undergoing discontinuous environment change.

Finally, if the characterizations suggested by this paper are accurate, the elimination of middle management in corporate downsizing risks damage to an organization's process capability which might worsen, rather than improve, organizational performance (Hart and Banbury, 1994). This may have happened to Kodak, for example, when in 1988 management eliminated 12,000 positions, many of them middle managers. Rather than achieving performance improvements, innovation and creativity declined and the company fell behind in the crucial race for new products (Burris, 1994). Thus, restructuring should occur with an awareness of the link between middle management and firm competitiveness.

### CONCLUSION

In an earlier study, Wooldridge and Floyd (1990) argued that there were two principle ways in which middle management involvement in the strategy-making process could enhance organizational performance: higher quality strategic decisions and more efficient implementation. Based on measures of their involvement in the stages of the process, their results suggested improved decisions as the more powerful of the two effects. Subsequently, the results in Floyd and Wooldridge (1992) supported the notion that specific forms of upward influence behaviours are associated with organizational strategy.

In this study, the managers' formal position within a boundary-spanning sub-unit appears as another significant factor in an analysis of middle management activity. Differences in sub-unit orientation towards the external environment and towards the current strategic agenda seem to produce more strategic influence within an organization. Furthermore, more consistency of downward influence and more varied upward influence are positively associated with measures of performance.

At the broadest level, the three studies suggest that significant involvement in strategic decisions usefully extends beyond the top management team, and that middle management involvement, in particular, is significant in both the definition and execution of strategy. Thus, the research provides empirical support for prior theoretical arguments (e.g. Dutton and Ashford, 1993; Hart, 1992; Mintzberg, 1978) and earlier clinical work (e.g. Burgelman, 1983b) on the importance of inclusiveness as a feature of the strategic decision process.

## NOTES

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- [1] Additional detail on the factor analysis is provided in Floyd and Wooldridge (1992, pp. 159–62).
- [2] Objective measures of organizational performance differ markedly across the industries sampled. A high performing bank, for example, could have a return on assets of 1 to 2 per cent, while most manufacturing firms would find such returns unacceptably low. Since our sample is relatively diverse, it was felt that sales growth provided the most comparable indicator across firms.
- [3] In an American Management Association study of firms that restructured between 1989 and 1994, 49.5 per cent reported that profits failed to improve, 65.6 per cent reported that productivity failed to improve and 86 per cent reported reduced employee morale (Wysocki, 1995).

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